1 slide 5-minute oral presentation

Artificial Intelligence for Colorectal Cancer Risk Assessment in an Emulated Primary Care Setting: A Feasibility Study

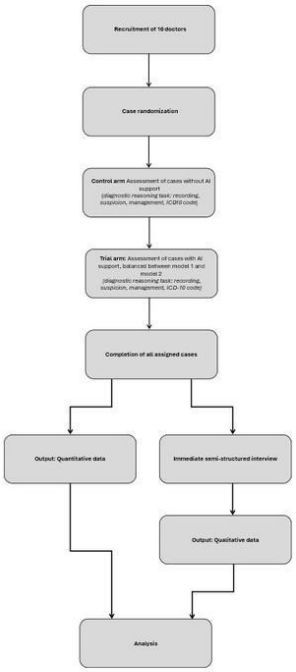
Cancer
Clinical General Practice

Eliya Abedi[1, 2, 3, 4]
Andrew Dwi Permana[5], Elinor Nemlander[1, 2, 3, 6], Adam S. Darwich[5], Annika Sjövall[3, 7], Axel C. Carlsson[1, 2], Andreas Rosenblad[1, 3, 8, 9], Tina Gustavell[9, 10], Marcela Ewing[11, 12], Jayanth Ragothama[5], Jan Hasselström[1, 2]
[1] Karolinska Institutet, Department of Neurobiology, Care Sciences and Society, Division of Family Medicine and Primary Care, Sweden
[2] Academic Primary Health Care Centre, Sweden
[3] Regional Cancer Centre Stockholm-Gotland, Sweden
[4] Jakobsbergs Universitets Vårdcentral, Sweden
[5] KTH Royal Institute of Technology, Department of Biomedical Engineering and Health Systems, Sweden
[6] Liljeholmens Universitets Vårdcentral, Sweden
[7] Karolinska University Hospital, Division of Coloproctology, Department of Pelvic Cancer, Sweden
[8] Uppsala University, Department of Medical Sciences, Division of Clinical Diabetology and Metabolism, Sweden
[9] Karolinska Institutet, Department of Neurobiology, Care Sciences and Society, Division of Nursing, Sweden
[10] Karolinska University Hospital, Department of Upper Abdominal Diseases, Cancer Theme, Sweden
[11] University of Gothenburg, General Practice / Family Medicine, School of Public Health and Community Medicine, Institute of Medicine, SwedenRegional Cancer Centre West, Sweden
[12] Regional Cancer Centre West, Sweden

Introduction: Colorectal cancer (CRC) is often diagnosed late in primary care. AI-based risk prediction tools may support earlier detection, yet their impact on clinical decision-making remains unexplored. Feasibility studies in realistic primary care settings are essential before larger trials.
Aim: To evaluate how AI-model predictions for CRC risk influence general practitioners' diagnostic reasoning and decision-making within an emulated primary care electronic health record (EHR) environment.
Methods: This multimethod exploratory feasibility study will recruit 10 GPs to assess around 50 de-identified primary care EHRs from CRC cases. Randomization at the patient-doctor level determines whether AI predictions are shown. Quantitative measures include suspicion of CRC, strength of suspicion, intended management, and ICD-10 coding. Semi-structured interviews will explore usability, trust, and perceived impact. AI models use structured and free-text EHR data from the year preceding diagnosis. Findings will guide the design of future cluster-randomized trials evaluating AI-based diagnostic support in primary care
Results: As a study protocol, no results are yet available. Expected outputs include insights into feasibility, usability, and methodological challenges of evaluating AI-based decision support in primary care. The study will also explore variation in diagnostic reasoning between GP specialists and residents.

Conclusions and clinical implication: This study will provide early insights into feasibility, usability, and potential clinical utility of AI decision-support tools in primary care. Results may inform model refinement, workflow integration, and the design of future confirmatory trials.

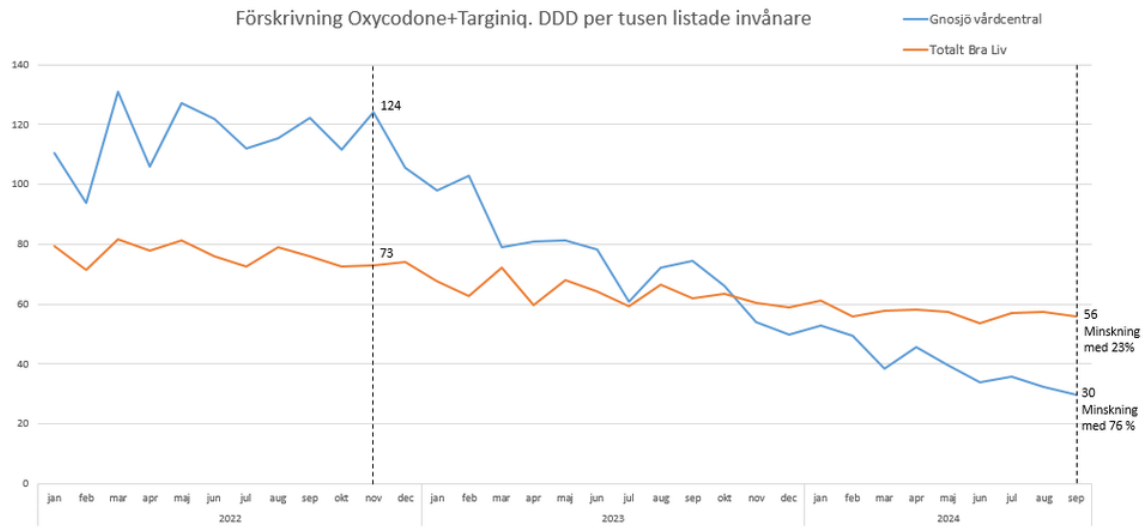
Flowchart illustrating the study procedure:



Opioid-Smart Primary Health Care: A Quality Improvement Initiative

Other
Clinical General Practice
Åsa Enkvist[1]
[1] Gnosjö vårdcentral

Introduction: In 2023, Gnosjö Primary Health Care Center identified opioid prescription rates substantially exceeding regional and national averages. Given the well-documented risks of opioid dependence, overdose, and adverse health outcomes, this prompted a structured quality improvement initiative.
Aim: The primary aim was to reduce opioid prescription rates to below the regional average for primary health care centers.
Methods: A retrospective analysis revealed systematic overextension of opioid prescriptions and insufficient reassessment of ongoing treatments. A key contributing factor was physicians' fear of patient conflict and emotional discomfort when discussing discontinuation.
A multidisciplinary, unit-wide intervention was implemented. All staff committed to a shared goal. Patients receiving long-term opioids were contacted individually for structured discussions regarding tapering and discontinuation. Physicians participated in joint training sessions focusing on communication strategies, conflict management, and addressing emotional barriers in clinical decision-making.
Results: The deviation from the national average opioid prescription rate decreased from +54% to +5%, and from +27% to –4% compared with county rates. Over 400 patients discontinued opioid treatment entirely. The most pronounced reduction was observed for oxycodone prescriptions, which decreased by more than 80%.
Conclusions and clinical implication: A targeted, team-based approach addressing both prescribing practices and clinicians' emotional barriers led to a substantial and sustained reduction in opioid use. Beyond improved prescribing metrics, the initiative strengthened professional confidence in managing complex patient encounters. Many patients reported reduced fatigue and anxiety, and some experienced decreased pain following opioid discontinuation. The project fostered a shared sense of purpose and professional satisfaction within the primary care team.


Förskrivning Oxycodone+Targiniq. DDD per tusen listade invånare
Gnosjö vårdcentral
Totalt Bra Liv
140
120
100
80
60
40
20
0
124
73
56
Minskning
med 23%
30
Minskning
med 76 %
jan feb mar apr maj jun jul aug sep okt nov dec
2022
jan feb mar apr maj jun jul aug sep okt nov dec
2023
jan feb mar apr maj jun jul aug sep
2024

"It's as if I'm just floating" A Qualitative Analysis of Adult Patients' Experiences in Cross-Sectoral Handovers

Quality and safety
Health services

Nora Kathrine Gylling[1]
Niels Kristian Kjær[1], Line Maria Simonsen[1], Pernille Tanggaard Andersen[2], Emil Baagøe Nørskov[1], Jesper Bo Nielsen[1], Jens Søndergaard[1], Linda Juel Ahrenfeldt[1], Jesper Lykkegaard[1]
[1] Research Unit of General Practice, Department of Public Health, University of Southern Denmark
[2] Department of Public Health, University of Southern Denmark

Introduction: Cross-sectoral patient handovers are critical moments in care, often characterized by discontinuity and uncertainty. While coordination across healthcare organizations has received increasing attention, research consistently highlights that patient involvement is equally essential for achieving seamless transitions. However, there is still limited understanding of patients' experiences during handovers.
Aim: To explore how adult somatic patients experience cross-sectoral handovers.
Methods: Nine patients were recruited for interviews in general practices in the South-Western Region of Denmark. Participants were eligible if they were aged 18 or older, had one or more somatic conditions, and had recent experience with cross-sectoral care transitions. The interviews were conducted in patients' homes and analyzed thematically using Braun and Clarke's six-phase approach.
Results: Patients characterized the handover processes as fragmented and reported limited opportunities for involvement in their own transitions. Disrupted relational continuity and unclear communication left patients feeling emotionally unsupported. Some described "floating" through the system, while others, in contrast, experience values closer related to those of person-centered handovers. Eventually, three themes emerged*: (1) Interpersonal Relation Dynamics and Authority in Healthcare Encounters; (2) The Lived Experience of the Patient in the Healthcare System: "It's as If I am Floating"; and (3) Everyday Support and Care in the Home.*
Conclusions and clinical implication: This study provides insights into how patients experience cross-sectoral handovers and highlights the need for meaningful involvement through clear communication and relational continuity. Clinical practice should prioritize emotional support and active participation from patients during handovers.

The 7 Habits of Great Family Doctors: Insights from a Global Survey of 468 GPs in 48 countries

Continuity of care
Clinical General Practice
Florian Stigler[1]
[1] Golden Nuggets of Family Medicine

Introduction: Defining and cultivating “excellence” in family medicine is challenging, especially across diverse health systems and cultures. Practical, experience-based wisdom from frontline GPs may help clarify what really matters in everyday family medicine.
Aim: The study's aim was to collect, analyze, and distill the "single best piece of advice" from a large, international cohort of GPs to identify the key habits and principles valued most by experienced practitioners.
Methods: A global, anonymous survey was distributed via the Golden Nuggets, WONCA World, and WONCA Europe newsletters. 468 Family Doctors from 48 countries participated, providing 531 pieces of advice. This qualitative data was thematically analyzed, with responses rephrased, counted, and grouped to distill the most common recommendations.
Results: The analysis distilled the advice into seven primary habits. The most frequently recommended habit, by a significant margin (shared by 127 GPs), was "First, Listen," emphasizing the diagnostic and rapport-building power of uninterrupted listening. Other key habits included "Cultivate Your Network" (54 GPs), "Embrace the Examination" (34 GPs), "Relationship = Superpower" (30 GPs), "Learn Continuously" (30 GPs), "Trust Your Intuition" (23 GPs), and "Take Care of Yourself" (19 GPs).
Conclusions and clinical implication: Across countries and systems, experienced GPs converge on a small set of relational, reflective, and self-care habits as the foundation of excellent family medicine. These identified habits are not abstract ideals but actionable principles. The findings provide a practical, peer-validated framework for professional development that can be integrated into clinical practice to improve patient care and physician well-being.

The "Golden Nuggets of Family Medicine" Newsletter: A Scalable Micro-Learning Platform for Busy GPs

Communication and consultation skills
Continuous Professional Development (CPD)
Florian Stigler[1]
[1] Golden Nuggets of Family Medicine

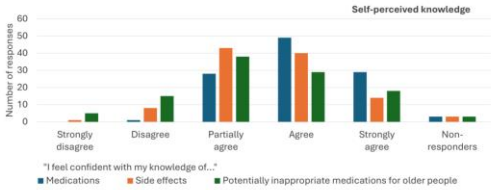
Introduction: General practitioners (GPs) face growing clinical demands and information overload, leaving little time for traditional continuous medical education (CME). Short, trustworthy, and easily digestible formats may help sustain up-to-date, reflective family medicine.
Aim: To describe the "Golden Nuggets Newsletter," a free, digital CME platform, as a scalable and effective model for translating new evidence into clinical practice, with high relevance for a global primary care audience.
Methods: The newsletter is an email-based publication. The editor systematically reviews high-impact medical and especially family medicine journals. Clinically relevant articles are selected, critically appraised, and summarized into concise, practical "nuggets." Expert commentary provides context, practical applications, and an international perspective, disseminating key findings without paywalls.
Results: The platform has grown organically within 18 months to over 4,500 subscribers across six continents, demonstrating high user demand and scalability. Qualitative feedback consistently confirms its value in efficiently filtering relevant literature and its direct utility in clinical decision-making. The model's email-based distribution has proven effective for rapid, wide-scale knowledge dissemination.
Conclusions and clinical implication: A very short, evidence-informed newsletter can function as a practical international CME tool for time-pressed GPs. Golden Nuggets illustrates how micro-learning and peer-driven content may support clinical reflection, collegial exchange, and sustainable high-quality family medicine.

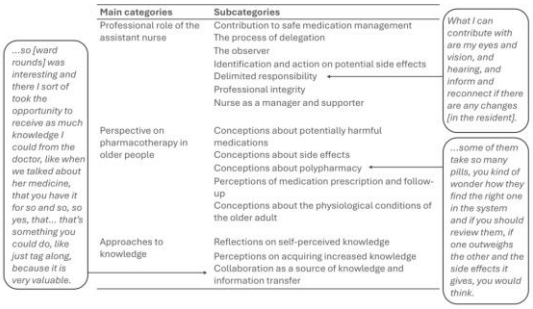
A mixed methods study of assistant nurses' perceptions of their role regarding drug-related problems in nursing homes

Interprofessional collaboration and team-based care
Health services

Sarah Thelin[1, 2]
Beata Borgström Bolmsjö[1, 2], Gabriella Caleres[1, 2, 3], Astrid Mattsson[4], Åsa G. Craftman[5], Patrik Midlöv[1, 2], Sara Modig[1, 2, 3]
[1] Center for Primary Health Care Research, Department of Clinical Sciences Malmö, Lund University, Malmö, Sweden
[2] University Clinic Primary Care, Skåne University Hospital, Region Skåne, Sweden
[3] Department of Medicines Management and Informatics in Skåne County, Malmö, Sweden
[4] Limhamnsläkarna Primary Health Centre, Apoteksgatan 7, S-216 14 Limhamn, Sweden
[5] Department of Neurobiology, Care Sciences and Society, Division of Nursing, Karolinska Institutet, Stockholm, Sweden

Introduction: Insufficient knowledge among assistant nurses on medicines and drug-related problems in nursing home residents endangers patient safety.
Aim: To explore the assistants' thoughts on their role in preventing drug-related problems, their self-perceived knowledge about medicines, drug-related problems and physiological conditions in older people, and their wishes concerning further medical education.
Methods: First, a survey with 112 assistants working at nine strategically sampled nursing homes was performed. Data were analysed using descriptive statistics and groups were compared using t-tests. Thereafter, semi-structured interviews were conducted with 20 strategically sampled assistants from four nursing homes. Interviews were audio recorded and transcribed verbatim. Content analysis was applied. Triangulation, reflexivity and maintaining an audit trail was used to ensure trustworthiness.
Results: In the survey, self-perceived knowledge of medicines was largely solid, although knowledge was sparser regarding risks of drug-related problems in older people. In the interviews, three main categories were identified: "Professional role of the assistant nurse", "Perspectives on pharmacotherapy in older people" and "Approaches to knowledge". A latent theme emerged in being the nurse's eyes and ears for patient safety.
Conclusions and clinical implication: Assistants have a unique position in the care of nursing home residents with great potential to contribute to increased medication safety, given appropriate conditions. We propose a work model where assistants participate in ward rounds and medication reviews, in line with the assistants' preferences for further education. Including assistants enables them to contribute with firsthand information on the residents, receive feedback and increased understanding for medical decisions and further safe medication follow-up.


Self-perceived knowledge
Number of responses
60
50
40
30
20
10
0
Strongly disagree
Disagree
Partially agree
Agree
Strongly agree
Non-responders
"I feel confident with my knowledge of..."
Medications
Side effects
Potentially inappropriate medications for older people


Main categories
Subcategories
Professional role of the assistant nurse
Contribution to safe medication management
The process of delegation
The observer
Identification and action on potential side effects
Delimited responsibility
Professional integrity
Nurse as a manager and supporter
Perspective on pharmacotherapy in older people
Conceptions about potentially harmful medications
Conceptions about side effects
Conceptions about polypharmacy
Perceptions of medication prescription and follow-up
Conceptions about the physiological conditions of the older adult
Approaches to knowledge
Reflections on self-perceived knowledge
Perceptions on acquiring increased knowledge
Collaboration as a source of knowledge and information transfer
...so [ward rounds] was interesting and there I sort of took the opportunity to receive as much knowledge I could from the doctor, like when we talked about her medicine, that you have it for so and so, so yes, that... that's something you could do, like just tag along, because it is very valuable.
What I can contribute with are my eyes and vision, and hearing, and inform and reconnect if there are any changes [in the resident].
...some of them take so many pills, you kind of wonder how they find the right one in the system and if you should review them, if one outweighs the other and the side effects it gives, you would think.

AI-Assisted Documentation in Singapore's Primary Care Medical Social Services: A Case Study

Artificial intelligence and decision support
Digitalization and Technology
Jamilah Jailani[1]
[1] National University Polyclinics Singapore

Introduction: In Singapore's primary healthcare system, polyclinics serve as comprehensive, subsidized facilities offering a range of services including chronic disease management and social support. Medical social workers (MSWs) in these settings manage complex psychosocial needs within time-constrained consultations. To address documentation challenges, we implemented Scribe, an AI-assisted clinical documentation tool, at National University Polyclinics (NUP).
Aim: To evaluate the implementation strategy and adoption trajectory of Scribe among medical social service (MSS) staff at NUP, assessing its impact on efficiency and workflow in Singapore's unique primary care context.
Methods:

- Participants: 18 MSS staff at NUP
- Duration: 6-month phased implementation
- Approach: Comprehensive initial training, regular feedback sessions, ongoing support
- Data Collection: Monthly usage statistics, pre/post-implementation surveys, user feedback
- Key Metrics: Adoption rates, user satisfaction, productivity impact

Results: Scribe usage increased by 44% (201 to 290 scribes/month). 85% of users rated satisfaction ≥3/5. 95% reported ≥15 minutes saved daily, with 20% saving >2 hours. 75% noted increased productivity. 75% were likely to recommend Scribe to colleagues.
Conclusions and clinical implication: The successful adoption of Scribe at NUP demonstrates an effective model for integrating AI-assisted technology in Singapore's primary care social services. The implementation strategy, tailored to Singapore's polyclinic system, resulted in significant time savings and productivity improvements. This enables MSWs to focus more on direct patient interaction and complex social assessments, crucial in the high-volume polyclinic environment. The study provides a blueprint for enhancing efficiency in social service delivery within Singapore's primary healthcare system, potentially leading to improved patient care and more effective psychosocial support.

The staff's experiences of treating patients with high blood pressure in primary care in Sweden – a qualitative study.

Cardiovascular
Clinical General Practice
Rebecka Quester[1]
Kristina Bengtsson Boström[1], Katarina Hedin[2], Mikko Hellgren[3], Per Hjerpe[1], Susanne Andersson[4]
[1] University of Gothenburg, Institute of Medicine, Sweden
[2] Linköping University, Department of Health, Medicine and Caring Sciences, Sweden
[3] Örebro University, School of Medical Sciences, Sweden
[4] University West, Department of Health Sciences, Sweden

Introduction: Hypertension is common and the main cause of cardiovascular disease and death. Many patients are suboptimally treated in relation to existing guidelines, with great local variations in treatment target fulfilment. What causes these variations is not yet fully understood.
Aim: To explore primary healthcare professionals' varying experiences of working with patients with hypertension with a focus on what characterizes well-functioning and less well-functioning hypertension care.
Methods: A qualitative interview study on staff from a strategic selection of primary healthcare centres in the Swedish Region Västra Götaland, representing a variation in geographical location, size, mode of operation and treatment results. Qualitative content analysis is used for data analysis.
Results: Initial interview data from 13 nurses and physicians at 8 different healthcare centres suggest, for example:

- Hypertension treatment is considered important for public health, but is sometimes experienced to receive lower priority than other conditions.
- Nurses with responsibility for hypertension care can appreciate their role, but describe a lack of education and a wish for networking with others.
- Continuity, written routines, flowcharts and committed enthusiasts in the workforce are factors mentioned as important for well-functioning hypertension care.

Data analysis will be completed after additional interviews, including approximately 8 more respondents from 4 additional healthcare centres. Data will be abstracted, interpreted and finally presented in subcategories, categories and/or themes.
Conclusions and clinical implication: Increased knowledge about the staff's experiences of hypertension care may increase understanding for, and generate new hypotheses about how local circumstances are connected to the seen variations in quality of care.

Exploring colorectal cancer patients' diagnostic pathways and general practitioners' assessment of diagnostic processes

Cancer
Clinical General Practice
Dorte Jarbøl[1]
Sanne Rasmussen[1], Kirubakaran Balasubramaniam[1], Jesper Lykkegaard[1], Linda Ahrenfeldt[1], Gitte Bruun Lauridsen[1], **Peter Haastrup**[1]
[1] Research Unit of General Practice, Department of Public Health, University of Southern Denmark

Introduction: Colorectal cancer (CRC) is among the most common cancers, and diagnostic timeliness is important because prognosis depends strongly on stage at diagnosis.
Aim: To explore CRC diagnostic pathways, including (1) place of initial contact; (2) associations between symptom presentation, sex, and age with diagnostic events and referrals; and (3) general practitioners' (GPs') evaluation of the diagnostic process.
Methods: All GPs in North, Central, and Southern Denmark were invited to complete questionnaires for all their listed patients diagnosed with cancer within the past two years. Data on initial contact, symptom presentation, diagnostic actions, and GP assessments were analyzed using logistic regression models providing odds ratios (ORs) with 95% confidence intervals (CIs).
Results: Among 1,032 CRC patients, 65% had initial contact in general practice, 5% via out-of-hours service, 10% were diagnosed during admission at hospital, and 20% through screening. Of patients over 40 years presenting in general practice, 27% were initially treated or referred for another suspected condition. Non-specific symptoms were reported in 37% of cases and were associated with increased odds of watchful waiting (OR 2.48; 95% CI 1.06–5.81), alternative referral (OR 2.57; 95% CI 1.76–3.75), waiting due to normal findings (OR 2.11; 95% CI 1.16–3.85), and referral to imaging (OR 3.07; 95% CI 1.63–5.79). GPs assessed nearly 20% of diagnostic processes as poor.
Conclusions and clinical implication: Most CRC patients initially present in general practice. Non-specific symptoms are common and challenge timely diagnosis, highlighting the need for further focus on timely diagnosis of CRC in primary care.

Person-centred team-based care for patients on opioid therapy for chronic pain in primary care: a feasibility study

Interprofessional collaboration and team-based care
Health services

Anna Svensson[1]
Nicole Ljungdahl[2], Hanna Ljungvall[2, 3], Thomas Kempen[2, 4], Sofia Kalvemark Sporrong[2], Magnus Peterson[1]
[1] Department of Public Health and Caring Sciences, Uppsala University, Sweden
[2] Department of Pharmacy, Social Pharmacy, Uppsala University, Sweden
[3] Department of Social work, Uppsala University, Sweden
[4] Utrecht Institute for Pharmaceutical Sciences, Utrecht University, the Netherlands

Introduction: Chronic pain is a major public health challenge and a leading cause of primary care visits. Despite limited evidence for non-cancer pain, long-term opioid therapy remains common. Person-centred, multiprofessional approaches are recommended to improve management and support opioid tapering.
Aim: To assess the feasibility of a planned clinical trial (Opi-Prim) aimed at optimizing pain management in patients on long-term opioid therapy for chronic non-cancer pain through a person-centred, multiprofessional team model in primary care.
Methods: A mixed-methods feasibility study with a longitudinal before-and-after design was conducted in two primary care centres in Region Uppsala, Sweden. One centre implemented an intervention involving coordinated care from a general practitioner, pharmacist, psychologist, physiotherapist, and care manager; the other provided usual care. Feasibility outcomes included recruitment, intervention delivery, fidelity, and completion of patient-reported outcome measures (PROMs) at baseline and three months. Quantitative data were analysed descriptively; qualitative data from focus groups and interviews were analysed using content analysis.
Results: All five invited patients participated in the intervention group; three of five in the control group. Intervention fidelity was high. PROM completion was 100% at baseline and 80% at three months in the intervention group. From baseline to three months, mean pain interference (BPI-SF composite score) decreased by 2.7 points in the intervention group and increased by 1.2 points in the control group. Professionals valued team collaboration but noted resource challenges; patients reported satisfaction but highlighted barriers to person-centred care.
Conclusions and clinical implication: The intervention appears feasible. Refinements for a full-scale trial include strategies for recruitment and strengthening person-centred components.

Organising Young General Practitioners in Denmark: Regional Structures and Broad Interest Representation

Leadership and organizational development
Health services
Sofia Kärnsund[1]
[1] Forum for Yngre Almen Medicinere, Denmark

Introduction: Introduction
The organisation of young general practitioners (GPs) varies across countries. In Denmark, young doctors entering or completing GP specialty training are represented by FYAM, a subgroup of the Danish Federation of General Practitioners (DSAM). Over recent years, FYAM has expanded its activities beyond regional networking to include a broader form of interest representation, member engagement and knowledge-sharing. This includes contributing to national debates, conducting member surveys, developing educational campaigns and producing practical resources for trainees.

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Aim: Aim
The aim of this presentation is to introduce the organisational structure of FYAM as a professional community for young general practitioners in Denmark, and to share our experiences. Our goal is to inspire similar organisations in other countries and to promote exchange of ideas among young general practitioners across countries.
Methods: Methods
FYAM is organised into five regional groups, each with elected representatives and locally engaged volunteers. These groups arrange educational and social events throughout the year, including after-work meetings with expert teaching. In addition, FYAM conducts member questionnaires, develops campaigns, participates in public debates, and collaborates with health authorities and GP organisations to provide perspectives from young GPs.
Results: Results
The regional structure supports continuous local engagement and peer networking, while the broader initiatives ensure that the perspectives of young GPs contribute meaningfully to professional discussions and resource development.
Conclusions and clinical implication: Conclusions and Clinical Implication
FYAM's combined organisational approach strengthens both the professional community and the visibility of young GPs in shaping future primary care. Sharing these experiences may support similar initiatives internationally

Assisted infant toilet training and functional gastrointestinal disorders in infants: a randomised controlled trial

Care for children and adolescents
Clinical General Practice
Terese Nilsson[1, 2]
[1] Faculty of Medicine and Health, Örebro university, Örebro, Sweden
[2] Family Medicine, Centrum för Klinisk Forskning Dalarna, Uppsala University, Falun, Sweden

Introduction: It is suggested that late initiation of toilet training contributes to functional gastrointestinal disorders in children.
Aim: This study aims to evaluate if assisted infant toilet training can reduce the prevalence of functional gastrointestinal disorders during the first 9 months of life.
Methods: The ongoing Bowel And Bladder function in Infant Toilet Training (BABITT) study is a randomised, controlled trial that recruited infants aged 0–2 months at six Child Health Centres in Sweden. Infants were randomly assigned (1:1) to either start parent-assisted infant toilet training at the age of 0–2 months (intervention) or as controls. The intervention group was encouraged to practise at a moderate frequency of 1–3 times/day, 5–7 days/week. A validated web questionnaire was answered at ages 2, 3, 6 and 9 months.
Results: 271 infants (145 males, 54%) were randomly assigned at median age of 34 days (136 intervention; 135 controls). The intention-to-treat analysis with complete cases (127 intervention; 132 controls) showed
no difference in the total period prevalence of functional gastrointestinal disorders (infant colic, infant dyschezia and/or functional constipation, defined by Rome IV criteria) between the intervention group and controls (52.0% vs 49.6%, difference 2.4% (95% CI −9.8 to 14.7); p=0.6956) up to the age of 9 months. Parentreported intervention adherence ranged between 53% and 63%.
Conclusions and clinical implication: This study does not support that assisted infant toilet training, practised at a moderate frequency, reduces the prevalence of gastrointestinal disorders during infancy. Long-term effects are being evaluated in the ongoing BABITT study up to the age of 4 years.

The impact of rural postgraduate training on rural recruitment of physicians

Undergraduate and postgraduate medical education
Continuous Professional Development (CPD)
Anders Svensson[1]
Birgit Abelsen[1], Marie Hella Lindberg[1], Cato Kjærvik[2]
[1] Norwegian Centre for Rural Medicine
[2] Department of surgery, Nordland Hospital Trust, Vesteraalen Hospital, Stokmarknes, Norway

Introduction: Recruiting and retaining a skilled health workforce is a common challenge for remote and rural communities worldwide, which negatively affects access to healthcare services and, consequently, population health. It is well documented that undergraduate medical education in rural settings contributes to the recruitment and retention of physicians in nonurban areas. However, evidence regarding the impact of rural postgraduate training positions on recruitment and retention remains limited.

Norway introduced an 18-month practical training program in 1955, consisting of 12 months in hospital and 6 months in general practice, as a prerequisite for physician licensure. The aim was to improve the quality of medical training and increase presence of physician in rural regions. Since 2017, this postgraduate internship has constituted the first mandatory stage of physician specialization training. In 2023, 220 physicians completed their postgraduate training across 11 hospitals and 64 municipalities in Northern Norway.
Aim: The study aims to examine the mobility patterns and career trajectories of physicians who started postgraduate training in Northern Norway between 2013 and 2023 (approximately 1,800 physicians).
Methods: This longitudinal study will utilize registry-based data analyzed through multivariate statistical techniques and sequence analysis.
Results: Preliminary findings from a pilot study suggest that rural internships play a critical role in promoting physician recruitment and retention in both hospitals and municipal healthcare services. Full results will be presented and interpreted.
Conclusions and clinical implication: This study is essential for evaluating the influence of rural postgraduate training on physician recruitment and retention in rural areas.

Use of out-of-hours primary care services before a cancer diagnosis for patients with a migrant background in Denmark

Migrant and refugee health
Health Equity
Karoline Riis Christensen[1, 2]
Anne Harbo Dahl[1, 2], Anne Sofie Baymler Lundberg[1, 2, 3], Alina Zalounina Falborg[1, 4], Linda Huibers[1, 2], Line Flytkjær Virgilsen[1]
[1] Research Unit for General Practice, Aarhus, Denmark
[2] Department of Puplic Health, Aarhus University, Denmark
[3] Steno Diabetes Center, Aarhus University Hospital, Denmark
[4] Center for General Practice, Aalborg University, Denmark

Introduction: Patients with migrant backgrounds are often diagnosed with cancer at more advanced stages than the background population and generally have fewer general practice contacts and higher use of out-of-hours primary care (OOH-PC) services. If this also applies in the period preceding cancer diagnosis, it could impact the diagnostic workup and cancer prognosis.
Aim: This study aims to investigate the contact pattern to OOH-PC among patients with a migrant background in the 24 months leading up to a cancer diagnosis.
Methods: We will conduct a nationwide cohort study using Danish registry data. The study population comprises all patients with a migrant background from the North Denmark Region, Central Denmark Region, Region of Southern Denmark, and Region Zealand, aged ≥18 years and registered with an incident cancer diagnosis in *the Danish Cancer Registry* from 1 January 2014 to 31 December 2022 (n=8,689). Negative binomial regression models will be used to calculate incidence rate ratios comparing monthly rates of OOH-PC contacts 24 months before a cancer diagnosis for migrants with cancer compared with: (1) migrants without cancer, and (2) individuals of Danish origin with cancer, both matched at a 1:10 ratio. Migrants will be defined as individuals born abroad to parents who are not both Danish citizens *and* Danish-born.
Results: Analyses are ongoing. We expect to have results ready for the conference.
Conclusions and clinical implication: This study will provide insights into the use of OOH-PC prior to cancer diagnosis among patients with migrant backgrounds, potentially informing improvements in cancer diagnostics.

The referral moment: How older adults interpret the relevance of social prescribing in Danish primary care. A qualitativ

Other (only selected in exceptional cases)

Lisa Suvarna Oldrup[1]
Marie Broholm-Holst[2], Mette Bendtz Lindstrøm[1], Ove Andersen[1, 3, 4], Jeanette Wassar Kirk[1, 2]
[1] Department of Clinical Research, Hvidovre Hospital, Denmark
[2] Department of Health and Social Context, National Institute of Public Health (University of Southern Denmark), Denmark
[3] Emergency Department, Hvidovre Hospital, Denmark
[4] Faculty of Health and Medical Sciences, Department of Clinical Medicine, University of Copenhagen, Denmark

Introduction: Loneliness and social isolation are public health challenges among older adults internationally and in Denmark. Social Prescribing (SP) offers a non-clinical approach linking patients to community-based activities to reduce loneliness. The "Social Prescribing Vesterbro-Sydhavnen" project (2024) was launched as the first systematic attempt to implement an SP-model in Danish general practice. This study explores how patients aged 60+ experienced SP referrals from their general practitioners (GPs), addressing an existing evidence gap.
Aim: The aim is to examine how older adults perceive the acceptability and relevance of SP in everyday life, and to identify determinants influencing their engagement with SP.
Methods: This study, a part of the SHINE research project, applies a Hybrid Type II Effectiveness-Implementation Design (Kirk et al. 2025). An ethnographic field study was conducted, exploring patients' experiences. Over six months, data were collected among 13 patients identified by GPs. Ethnographic observations of GP consultations captured patients' immediate reactions to SP referrals. Semi-structured interviews subsequently explored perceived relevance, social and health determinants, and factors shaping acceptability. A thematic analysis guided the interpretation.
Results: Three themes emerged: (1) interpreting relevance in the context of loss and constrained everyday lives; (2) interpreting relevance through relational obligations and social positioning; and (3) interpreting relevance in relation to conditions for engagement.
Conclusions and clinical implication: The findings offer insight into how older patients experience SP in general practice, highlighting for whom and when SP is meaningful and acceptable. Patients' narratives points to key contextual factors to support local implementation and to guide future national scale-up within Denmark's healthcare system.

Avoidance of Physical Activity Among Patients with Chronic Obstructive Pulmonary Disease (COPD): An Observational Study

Respiratory
Clinical General Practice
Dea Kejlberg Andelius[1, 2]
Julie Sandell Jacobsen[1, 3], Freja Hauberg Hallen[1], Anders Løkke[4, 5], Chris Barton[6], Rasmus Østergaard Nielsen[1, 2]
[1] Research Unit for General Practice, Aarhus, Denmark
[2] Department of Public Health, Aarhus University, Denmark
[3] VIA University College, Aarhus, Denmark
[4] Little Belt Hospital, Denmark
[5] Department of Regional Health Research, University of Southern Denmark
[6] Department of General Practice, Monash University, Australia

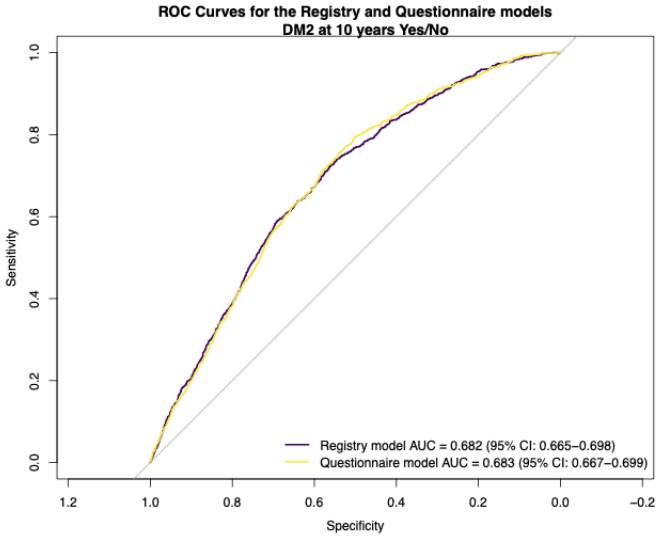
Introduction: Chronic Obstructive Pulmonary Disease (COPD) presents a significant challenge to both individuals and healthcare systems globally. While physical activity is recognized as an essential and sustainable component of COPD management, patients with COPD often exhibit lower levels of physical activity compared to their lung-healthy peers.
Aim: The aim was to describe the proportion of patients with COPD who report avoidance behavior related to physical activity.
Methods: A questionnaire-based, observational study was conducted among patients with COPD, scheduled to attend a pulmonary rehabilitation program. Patients completed the COPD Anxiety Questionnaire (CAF-R), and functional tests were conducted prior to participation of the rehabilitation program.
Results: We included 90 patients (48 females, mean: age 70±7.6 years, body mass index 25.5±4.8, MRC dyspnoea scale 1.8±1.0, 1-Minute-Sit-To-Stand-Test 18 ±7.1). Findings revealed that 64 % (95% CI [54%-74%]) reported avoidance of physical exertion, 46 % (95% CI [36%-56%]) avoided activities causing breathlessness, and 36 % (95% CI [26%-48%]) avoided any form of physical activity.
Conclusions and clinical implication: The findings highlight that a substantial proportion of patients with COPD exhibit avoidance behaviors related to physical activity. These behaviors not only hinder physical health outcomes but also contribute to the increased reliance on medical interventions that are less sustainable. The results underscore the importance of investigating avoidance behavior in patients with COPD to better understand how to promote physical activity within this population.

Register based and self-reported socioeconomic status preforms equally in prediction of mortality and diabetes

Social and structural determinants of health
Health Equity

Andreas Heltberg[1, 2, 3]
Mattias Højgaard Toftholm[4], Lau Caspar Thygesen[4], Volkert Siersma[1], Henrik Enghusen Poulsen[5], Christina Ellervik[6, 7]
[1] The Research Unit for General Practice and Section of General Practice, Department of Public Health, University of Copenhagen, Copenhagen, Denmark
[2] KAP-S, Region Zealand, Denmark
[3] Lægerne Algade 17, Roskilde, Denmark
[4] National Institute of Public Health, Dept. of Public Health Epidemiology, University of Southern Denmark
[5] Rigshospitalet, University of Copenhagen
[6] Zealand University Hospital, University of Copenhagen
[7] Harvard Medical School, Boston, USA

Introduction: Although the influence of socioeconomic status (SES) on both diabetes risk and mortality is well established, access to high-quality SES data in clinical practice remains limited. Clinicians typically rely on self-reported information, as register-based SES data are not available. Yet such information may provide an important foundation for risk assessment and targeted preventive interventions among patients at high risk of adverse outcomes.
Aim: In this study, we examined how well self-reported SES data perform compared with register-based SES data in predicting incident diabetes and all-cause mortality. We further assessed whether self-reported SES is sufficiently valid and clinically relevant .
Methods: The study was conducted as a cohort study from the Danish General Suburban Population Study (GESUS). Between 2010 and 2013, 49,115 individuals were invited to undergo health examination; participation was 43.2%, with 10-year follow-up through national registers. SES indicators were collected both through self-report and through linkage to national registers.Logistic regression, Brier scores, and ROC curves were used to compare predictive performance for incident diabetes and mortality.
Results: Self-reported SES showed high concordance with register-based SES, although participants tended to slightly overestimate their educational attainment. Predictive performance for both diabetes (Brier score 0.44) and mortality (0.55) was similar for self-reported and register-based SES. Education level and employment status were the strongest predictors. ROC analyses demonstrated overlapping curves for the two data sources.
Conclusions and clinical implication: Socioeconomic status strongly influences risk of diabetes and mortality. Self-reported SES closely aligns with register-based data and constitutes a valid and clinically meaningful supplement to biomedical risk factors when identifying high-risk patients.

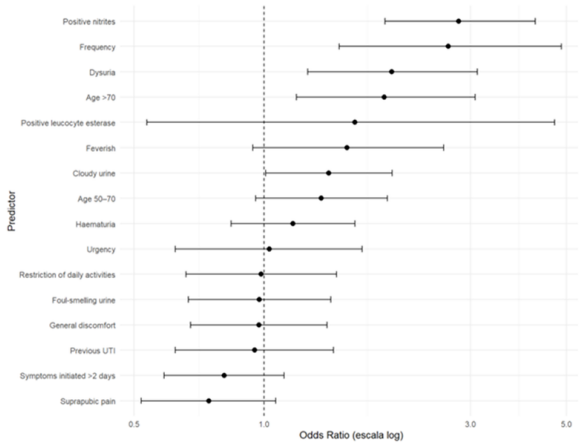

ROC Curves for the Registry and Questionnaire models
DM2 at 10 years Yes/No
Sensitivity
Specificity
1.0
0.8
0.6
0.4
0.2
0.0
1.2
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
Registry model AUC = 0.682 (95% CI: 0.665−0.698)
Questionnaire model AUC = 0.683 (95% CI: 0.667−0.699)

Predictor factors of microbiological urinary tract infection among symptomatic women.

Infections
Clinical General Practice
Carl Llor[1, 2, 3]
Ana Moragas[2, 3, 4], Ramon Monfà[2, 3], Ana García-Sangenís[2, 3], Dan Ouchi[2], Rosa Morros[2, 3]
[1] Research Unit for General Practice, Department of Public Health, University of Southern Denmark, Odense
[2] Fundació Institut Universitari per a la Recerca a l'Atenció Primària de Salut Jordi Gol, Barcelona
[3] CIBER de Enfermedades Infecciosas, Instituto de Salud Carlos III
[4] Jaume I Health Centre, University Rovira i Virgili, Tarragona

Introduction: We recently conducted a pragmatic, open-label randomized clinical trial assessing the effectiveness of four short antibiotic regimens for women aged 18 years or older presenting with key symptoms of uncomplicated urinary tract infection (UTI)—dysuria, urgency, frequency, or suprapubic tenderness—and a positive urine dipstick (nitrites or leukocyte esterase).
Aim: In this post-hoc analysis, we examined predictors of microbiologically confirmed UTI.
Methods: We included all women with a confirmed positive urine culture (421 of 678 participants, 57% of the sample). A multivariable logistic regression model was used to identify baseline factors associated with a positive culture among symptomatic women.
Results: The likelihood of a true UTI increased with the number of reported symptoms: 34.3% of women with one symptom had positive cultures, compared with 50% of those with two symptoms, 56.9% with three, and 60.7% with four. Nitrite positivity and urinary frequency were the strongest predictors of a positive culture, with odds ratios of 2.82 and 2.67, respectively. Dysuria and older age (>70 years) also showed moderate, statistically significant associations. Cloudy urine demonstrated only a modest relationship with microbiological confirmation (figure).
Conclusions and clinical implication: Diagnosing UTIs in primary care remains difficult. Reliance on symptoms, physical signs, and dipstick testing provides limited accuracy, contributing to both unnecessary antibiotic use and missed infections. These findings highlight the need for more reliable point-of-care diagnostic tools, as current methods—including dipstick testing—offer insufficient sensitivity and specificity for confidently confirming UTI. UTI should be confirmed at least with the presence of two cardinal symptoms, preferably frequency and dysuria.

FIGURE. Predictors of microbiologically confirmed urinary tract infection among 421 symptomatic women.



Developing a person-centred, integrated and proactive care pathway for home-dwelling frail elderly persons.

Innovation in primary care systems
Health services

Ingeborg Johannessen[1, 2]
Torunn Bjerve Eide[1], Lene Berge Holm[3]
[1] University of Oslo, Institute of Health and Society, Norway
[2] Drammen Municipality, Medical unit, Norway
[3] Oslo Metropolitan University, Department of Life Sciences and Health, Norway

Introduction: Healthcare systems worldwide need to change to be able to provide good healthcare to all in ageing populations. Person-centred, integrated and proactive interventions supported by digital elements (Digi-PIP) show promising results. Such a reorientation of services will require complex changes in a complex and changing environment.
Aim: The aim of this study is to provide new insights into how to develop a complex intervention that can improve real- world healthcare services for frail home- dwelling elderly patients in Drammen, Norway.
Methods: We will use soft systems methodology to explore weaknesses and risks in the current health- care system for this patient group and to co- design a care pathway considered feasible and acceptable by general practitioners, community healthcare- workers, patients, relatives and healthcare leaders. Data will be gathered from stakeholders through observations, semi- structured individual interviews, focus groups and workshops.
Results: The insights gained will form the basis for a co-designed patient care pathway considered feasible and acceptable by all stakeholders in primary healthcare.
Conclusions and clinical implication: New ways of working are needed to ensure sustainable services for the growing population of frail older adults, both in general practice and in home care services. This study aims to contribute to this development.

Swedish translation and construct validation of the Adult Social Care Outcomes Toolkit SCT4 in an older population

Multimorbidity and complex care needs
Clinical General Practice

Moa Lundgren[1, 2]
Maria M Johansson[3, 4], Jenny Alwin[1], Elizabeth Welch[5], Nick Smith[6], Johan Lyth[1], Anna Segernäs[1, 7]
[1] Department of Health, Medicine and Caring Sciences, Linköping University, Sweden
[2] Primary Health Care Centre Finspång, Sweden
[3] Department of Activity and Health in Linköping, and Department of Health, Medicine and Caring Sciences, Linköping University, Sweden
[4] Department of Acute Internal Medicine and Geriatrics, and Department of Health, Medicine and Caring Sciences, Linköping University, Sweden
[5] Personal Social Services Research Unit (PSSRU), University of Kent, United Kingdom
[6] Centre for Health Services Studies (CHSS), University of Kent, United Kingdom
[7] Primary Health Care Centre Ekholmen, Linköping, Sweden

Introduction: The growing proportion of older adults poses a major challenge for primary health care. This demographic shift is linked to increased multimorbidity and frailty, often resulting in functional decline and a need for social care to maintain independence. In primary care, initiating appropriate social care interventions can be one of the most effective strategies for improving patient well-being. To evaluate the impact of social care—aimed at enhancing **Social Care Related Quality of Life (SCRQoL)**—validated outcome measures are essential. The **Adult Social Care Outcomes Toolkit (ASCOT)** provides such a framework and is available in multiple formats and languages, supporting its use in diverse health care settings.
Aim: This study aimed to translate and culturally adapt ASCOT-SCT4, a self-completion tool with four response options, into Swedish and assess its content and construct validity.
Methods: Following ISPOR guidelines, ASCOT-SCT4 was translated and tested using baseline data from the *Secure And Focused primary care for older pEople* study (n=546, aged ≥75 with social homecare). Construct validity was examined through hypothesis testing (polychoric correlations), known-group validity (Cramer's V), factor analysis, and internal consistency (Cronbach's alpha).
Results: Translation and content validity were acceptable. Construct validity was supported, with all but one hypothesised correlation significant. Known-group validity showed weak but significant associations. Internal consistency was good (α=0.77), and factor analysis confirmed a one-factor structure.
Conclusions and clinical implication: The Swedish ASCOT-SCT4 demonstrates evidence of validity and reliability for community-dwelling users of social care in ordinary housing. ASCOT-SCT4 can therefore be used in a Swedish speaking older population for evaluations of social care and SCRQoL.

Accuracy of point-of-care gallbladder ultrasound performed by general practitioners in a cross-sectional study

Artificial intelligence and decision support
Digitalization and Technology
David Halata[1, 2]
Dusan Zhor[1], Roman Skulec[3, 4]
[1] Czech Society of General Practice
[2] Department of Preventive Medicine, Faculty of Medicine in Hradec Kralove, Charles University
[3] Faculty of Medicine in Hradec Kralove, Charles University
[4] Department of Anaesthesiology, Perioperative and Intensive Medicine, J. E. Purkyne University in Usti nad Labem

Introduction: Point-of-care ultrasonography performed by general practitioners is increasingly used to evaluate patients with abdominal pain. Evidence on its diagnostic performance for gallbladder disease in primary care is still limited.
Aim: To determine the diagnostic accuracy of gallbladder POCUS performed by trained GPs in detecting cholecystolithiasis, compared with expert abdominal ultrasound examination.
Methods: This cross-sectional diagnostic accuracy study included consecutive adults presenting to primary care with symptoms suggestive of biliary disease. Participating general practitioners underwent structured ultrasonography training. POCUS evaluation included gallstone detection, gallbladder wall assessment and presence of sludge. Expert abdominal ultrasound served as the reference standard. Sensitivity, specificity, predictive values and likelihood ratios were calculated.
Results: 43 patients were enrolled; in 42 cases (97.7%) the gallbladder was successfully visualised. Mean age was 53.3 years and 71.4% were women. Right upper quadrant pain was present in 78.7% of patients. Point-of-care ultrasonography identified solitary gallstones in 33.3%, multiple stones in 19.0% and sludge in 14.3%. Mean examination time was 263 seconds and was significantly shorter in fasting patients. Diagnostic accuracy for any gallstones showed a sensitivity of 95.45% and specificity of 95.00%. Sensitivity for solitary stones was lower (78.57%), whereas detection of multiple stones reached 100% sensitivity.
Conclusions and clinical implication: General practitioners trained in point-of-care ultrasonography can accurately detect gallstones during routine consultations. The examination is rapid, feasible and aligns with diagnostic performance observed in secondary care. Integrating point-of-care ultrasonography into primary care may streamline diagnostic pathways and reduce delays in management. Larger multicentre studies are recommended to confirm these findings.

Table - The reliability of POCUS examination of the gall bladder by a general practitioner in the diagnosis of cholecystolithiasis compared with expert ultrasound and / or CT examination.

	any cholecystolithiasis		solitary cholecystolithiasis		multiple cholecystolithiasis	
	value	95 % CI	value	95 % CI	value	95 % CI
Sensitivity (%)	95.45	77.16 – 99.88	78.57	49.20 – 95.34	100.00	63.06 – 100.00
Specificity (%)	95.00	75.13 – 99.87	100.00	87.66 – 100.00	91.18	76.32 – 98.14
Positive likelihood ratio (%)	19.09	2.82 – 129.25	100.00	-	11.33	3.85 – 33.39
Negative Likelihood ratio (%)	0.05	0.01 – 0.33	0.21	0.08 – 0.58	0.00	-
Positive predictive value (%)	82.68	41.35 – 97.00	100.00	-	73.91	49.02 – 89.30
Negative predictive value (%)	98.82	92.47 – 99.82	94.92	87.25 – 98.07	100.00	-
Accuracy (%)	95.09	83.62 – 99.37	95.71	84.53 – 99.56	92.94	80.63 – 98.54

Assessing Feasibility of Condition-Specific Information Sheets for Acute Respiratory Infections in General Practice

Respiratory
Clinical General Practice

Lotti Eggers-Kaas[1]
Anna Mygind[2], Dorte Ejg Jabøl[3], Janus Laust Thomsen[1], Malene Plejdrup Hansen[1, 3]
[1] Center for General Practice at Aalborg University, Aalborg, Denmark
[2] Research Unit for General Practice, Aarhus, Denmark
[3] Research Unit of General Practice, Department of Public Health, University of Southern Denmark, Odense, Denmark

Introduction: Facing a post-antibiotic era where antibiotics will be noneffective against bacterial infections, addressing solutions to decline use of antibiotics becomes paramount.

General practice is responsible for about 75% of antibiotic consumption in Denmark, with acute respiratory tract infections being a common indication. Patient-centred communication has shown potential to reduce antibiotic use for acute respiratory tract infections. To support patient-centred communication, four information sheets (info-sheets) for acute otitis media, acute pharyngotonsillitis, acute rhinosinusitis or acute bronchitis have been developed.
Aim: The aim of this project is to investigate the feasibility of the use of info-sheets targeting antibiotic prescribing for acute respiratory tract infections in Danish general practice.
Methods: The feasibility of info-sheets was investigated through a mixed method study. Initially quantitative data was collected by the general practitioners and practice staff using info-sheets. Followed by semi structured interviews building upon the quantitative data and the framework of acceptability.
Results: Four general practices - with a total of 6 general practitioners and 8 practice staff - participated. A total of 62 registrations were obtained and four dyad interviews performed. Mixed methods analysis is ongoing, and we plan to present final results at the NCGP 2026.
Conclusions and clinical implication: The use of info-sheets for acute respiratory tract infections appears feasible in Danish general practice. Preliminary findings indicate that info-sheets are perceived relevant and easy to integrate without adding significant time burden. Conceivably leading to more patients choosing wisely about antibiotics in the future. Info-sheets may support patient-centered communication, potentially reducing unnecessary antibiotic prescribing and contributing to antimicrobial stewardship in primary care.

Innovating and strengtening primary care workforce in the Czech Republic: an EU national initiative

Undergraduate and postgraduate medical education
Continuous Professional Development (CPD)
David Halata[1, 2, 3]
Katerina Javorska[1, 2, 3], Ludmila Bezdickova[1, 2], Lucie Sefrhansova[1, 2]
[1] Institute for Postgraduate Medical Education
[2] Czech Society of General Practice
[3] Department of Preventive Medicine, Faculty of Medicine in Hradec Kralove, Charles University

Introduction: Many European countries struggle to sustain primary care workforce, especially in rural areas. In the Czech Republic, aging GP population, uneven regional distribution and growing training demands have prompted the launch of a nationwide initiative to address these workforce challenges**.**
Aim: To define and discuss the development and early outcomes of a a three-year nationwide project addressing rural recruitment, GP trainers development and structured education for nurses in GP.
Methods: A three-year nationwide project *Support for education in primary care for general practitioners, pediatric general practitioners, and support for regional accessibility of healthcare (Project registration number: CZ.03.02.02/00/24_060/0005126)*, supported by the European Social Fund through the Employment Plus Operational Programme and the state budget of the Czech Republic, was launched in 2025. The project is divided into multiple key activities (KA):
• **KA1** – rural clerkships in 26 teaching practices, seminars at all medical faculties, research analysing motivations, barriers and shifts in career intentions, as well as the initiation of regular regional meetings with GP trainees and trainers to identify their educational needs and improve GP training nationwide.
• **KA2** – developmet of competency-based skills book, implementing Leonardo EURACT course for GP trainers and improvement of assessment methodology.
• **KA3** – pilot structured education for nurses in general practice.
Results: Preliminary data show positive shifts in rural career intentions, strengthened trainer competencies and exceptionally high demand for nurses´ education.
Conclusions and clinical implication: This EU supported initiative provides a scalable, evidence-based educational framework to enhance primary care recruitment, training quality, and regional accessibility, offering transferable solutions for similar workforce challenges.

Antibiotic Smart Primary Care Centres

Sustainable healthcare practices
Environmental Health and Sustainability
Carl Fridolfsson[1, 2]
Ragda Obeid[1, 3], Hélène Rödin[1, 4]
[1] Antibiotic Smart Sweden
[2] Strama Jönköping, Sweden
[3] Public Health Agency of Sweden
[4] Strama Stockholm, Sweden

Introduction: Antibiotic Smart Sweden is a national initiative led by the Public Health Agency of Sweden, RISE – Research Institutes of Sweden, the National Working Group Strama, and ReAct - Action on Antibiotic Resistance.
Aim: The vision is an antibiotic-smart Sweden – a society in which everyone contributes to ensuring that antibiotics remain effective and continue to save lives.
Methods: Primary care centres play a key role in realising this vision, as they manage a wide spectrum of patient visits, including various infectious conditions. Both infection prevention and control (IPC) and Strama-related work are included, and this initiative is intended to complement existing local efforts by highlighting successful practices and disseminating them more widely. The aim is to stimulate continued quality improvement through a structured and broader approach, with the possibility of being certified as an antibiotic-smart primary care centre by working with and fulfilling the antibiotic-smart criteria. These criteria address collaboration, work processes, measurement and monitoring, and continuous professional development. They are designed to support healthcare providers in implementing components of Strama's 10-point programme against antibiotic resistance and the IPC guidance developed by the National Working Group for IPC.
Results: The initiative was launched in 2024, and currently nine primary care centres in various regions have been certified, and more than 100 primary care centres are actively working toward becoming antibiotic-smart.
Conclusions and clinical implication: By shifting perspectives, the work against antibiotic resistance becomes a shared responsibility within the society. With the support of Antibiotic Smart Sweden's criteria, primary care centres can work in a constructive and systematic manner.

Video consultations and general practice, can they align?

E-health and telemedicine
Digitalization and Technology
Sofia Olofsson[1, 2]
Veronica Milos Nymberg[1], Hans Thulesius[1], Björn Ekman[1], Mattias Röösst[1, 2]
[1] Department of Clinical Sciences, Malmö, Lund University, Malmö, Sweden
[2] Regional Department of Competence in Family Medicine and Primary Health Care, Växjö, Sweden

Introduction: A partial shift from traditional consultations between patients and general practitioners (GPs) to digital consultations has been suggested as an important tool to meet an increasing demand of primary health care. The use of video consultations (VCs) is however low and research has mainly focused on explicit facilitators and barriers for implementing VCs. There is limited knowledge about how a shift in consultation conditions affect general practice, including professional identity, and to what extent such aspects influence the implementation of VCs.
Aim: To investigate GPs perceptions about VCs in relation to general practice and implementation.
Methods: A qualitative study with semi-structured interviews with twelve strategically selected GPs in Sweden. Reflexive thematic analysis was applied and the process was mainly inductive although theoretical perspectives were applied. NVivo was used for data processing.
Results: Preliminary results include three themes within the field of tension in acceptance of change. Applicability of VC within general practice highlights how VCs create a condition that impact on (a) technical aspects of the consultation, (b) the patient-physician relation, (c), role-distributions, and (d) perceived medical certainty. There were different opinions about the relative advantage of VCs compared to other distance consultation forms. Top-down implementation describes the GPs experiences of the VC implementation process. Changes in working environment elucidates both increased flexibility and difficulties in work flow.
Conclusions and clinical implication: The implementation of VCs affects several aspects of traditional general practice. This needs to be acknowledged in further development and implementation of new work processes.

Social Prescribing - a sustainable method adressing social equity in health. Experiences from the Copenhagen project.

Access to care and service delivery
Health Equity
Claus Rendtorff[1]
Berit Enggaard Kaae[1]
[1] General practitioner, associate professor, Copenhagen University

Introduction: Social Prescribing (SP) was introduced in 2024 in general practice in Copenhagen. 48 GP's (85.000 patients) work together with two link workers. The project develops a method for linkworking between the primary health care system to community-based activities and services in the civil society and the municipality. The Copenhagen project "Social Henvisning Vesterbro-Sydhavnen" is innovative in Denmark, and a model project of the 'National expansion Social Prescribing in Denmark
Aim: We aim to enlighten the SP method and experiences from the Danish project "Social Henvisning Vesterbro-Sydhavnen" and to discuss the pros and cons of the method. SP is a is a citizen-oriented method that has potential to address increasing loneliness, and social inequity. A part of the proactive health strategy announced in the WHO Europe's policy paper 2023.
Methods: The linkworking proces in the project is motivating the participants to be a part of social groups in the local civil society and the municipality. It is a complex intervention project, which is expected to give positive results in strengthening the participants wellbeing, health and sense of safety.
Results: In December 2025 160 citizens have attended the study. 39 are now connected to local community groups, 4 are volunteers and 40 are testing different community groups. The first result of the qualitative evaluation is now ready for publication.
Conclusions and clinical implication: SP is a method to connect local civil society community projects to the primary health care system (PHCS). SP is a possible way to strengthen general practice in the work with helping social vulnerable citizens.

Let's Talk Differently About Medicines: Exploring story-sharing groups to support older people affected by polypharmacy

Multimorbidity and complex care needs
Clinical General Practice
Deborah Swinglehurst[1]
Nina Fudge[1], Alison Thomson[1], Rachel Barnard[1]
[1] Queen Mary University of London

Introduction: Polypharmacy is escalating. In England people prescribed 10+ medicines should have regular structured medication reviews (SMRs) but SMRs fail to reach their potential. Polypharmacy raises issues that doctors and patients find difficult to discuss. We co-designed a community-based intervention *Let's Talk Differently About Medicines (LTDAM)* to improve conversations about medicines. LTDAM is a collection of seven illustrated fictional stories derived from our previous research.
Aim: To explore how and to what extent LTDAM prompts personal story-sharing, collective sense-making and action.
Methods: We tested a course based on the LTDAM stories with older adults affected by polypharmacy (5-8 participants per course) in three community venues. Each course comprised a series of 75-minute workshops centred around a reading a story and using reflective prompts to catalyse discussion. Courses were iteratively developed, informed by participant interviews and critical reflection. Adopting a narrative methodology, we identified key personal and collective narratives in audio-recorded workshop and interview data. We traced how 'small stories' emerged, interwove and evolved within, between and beyond workshops, and documented their relationship to action.
Results: LTDAM stimulated participants to share their own narratives and offer peer support. Awareness of medicines-related harm increased, and participants reframed the possibilities available within healthcare interactions to address this, finding space to ask questions, challenge waste and speak openly about medicines practices.
Conclusions and clinical implication: We demonstrate the potential of a public-facing resource based on stories of lived experience to prompt shifts in the conversation about polypharmacy where conventional information resources may fall short.

Paediatric Off-Label Use of Medicines in Danish Primary Care: A Nationwide Register-Based Study

Care for children and adolescents
Clinical General Practice

Armin Andersen[1]
Nali Barzenji[1, 2], Jon Trærup Andersen[1, 3], Ulrik Lausten-Thomsen[4], Constance E. Grandjean[5], Charlotte Vermehren[3, 5], Christina Gade[1, 3]
[1] Department of Clinical Pharmacology, Bispebjerg Hospital, Copenhagen, Denmark
[2] Department of Pharmacy, University of Copenhagen, Denmark
[3] Department of Clinical Pharmacology, Frederiksberg Hospital, Copenhagen, Denmark
[4] Department of Neonatal and Paediatric Intensive Care, Rigshospitalet, Copenhagen, Denmark
[5] Lægemiddelenheden, The Hospital Pharmacy, Capital Region of Denmark

Introduction: Off-label use of medicines, defined as the use of drugs outside the officially approved indications, may increase the risk of adverse effects and suboptimal treatment. This issue is particularly pronounced in pediatrics, where regulatory approvals are often lacking. A recent nationwide study documented that up to 90% of the medicine prescribed in Danish neonatal units (newborns ≤28 days) is used off-label. Although expected to be lower in older children, there is limited knowledge regarding the extent of off-label use in the broader Danish pediatric population.

Aim: The aim of this study is to determine the proportion of medicines prescribed off-label to children and adolescents (aged 1–18 years) in Danish primary care.

Methods: A top 100 list of most prescribed medicines (in DDDs) in primary care in the period 2023 throughout 2024 has been gathered using the register of pharmaceutical sales. Using the Danish Civil Registration System (CPR), we will quantify the age groups to which the different medicines have been prescribed. Linking these data with ingredients and approved age groups in summaries of product characteristics (SmPCs), the medicines will be assessed for off-label use.

Results: Preliminary results indicate that the proportion of medicines prescribed off-label to children and adolescents in Danish primary care is smaller than in secondary care. The full results are expected by January 2026.

Conclusions and clinical implication: Preliminary results suggest that off-label use in children increases with departmental specialization, reflecting the complexity of pediatric cases in these units. The final conclusion will consider how pediatric dosing information can be better prioritized.

Blood pressure and multimorbidity in Swedish oldest-old patients with hypertension at different levels of elderly care

Multimorbidity and complex care needs
Clinical General Practice

Maria (Marjo) Berkhout[1, 2]
Tobias Andersson[1, 2, 3], Charlotta Ljungman[4, 5], Kristina Bengtsson Boström[1, 3], Per Hjerpe[1, 3]
[1] General Practice/Family Medicine, School of Public Health and Community Medicine, Institute of Medicine, Sahlgrenska Academy, University of Gothenburg, Gothenburg, Sweden
[2] Närhälsan Norrmalm Health Care Centre, Skövde, Sweden
[3] Centre for Research, Education, Development and Innovation, Primary Health Care, Region Västra Götaland, Skövde, Sweden
[4] Department of Molecular and Clinical Medicine, Institute of Medicine, University of Gothenburg, Gothenburg, Sweden
[5] Department of Cardiology, Sahlgrenska University Hospital, Gothenburg, Sweden

Introduction: The oldest-old patients (≥ 80 years) with hypertension comprise a heterogeneous group with varying co-morbidity, polypharmacy and need for elderly care. General Practitioners are challenged in making treatment decisions as studies of this group of patients are rare.
Aim: To describe hypertension in the oldest-old with blood pressure levels, comorbidities, dispensed drugs and mortality, stratified by different levels of elderly care.
Methods: Design: Retrospective longitudinal cohort study with data from electronic medical records (2001-2014), linked to national registers; the Patient register, Prescribed Drug register, Social Service Register ((SSR) contains data on care for elderly and persons with impairments), and Cause of Death register until 2023.
Setting: 20 public primary healthcare centres comprising the Swedish Primary Care Cardiovascular Database-Skaraborg.
Subjects: Patients ≥ 80 years with hypertension alive in 2014.
Main outcome measures: Blood pressure levels, clinical characteristics, comorbidities, Charlson comorbidity index, dispensed drugs, levels of elderly care (nursing home, home care, security alarm) and mortality.
Analysis methods: Descriptive statistics, Anova, regression- and survival analysis.
Results: So far: There were 9856 patients (85.5± 4.3 years) with hypertension in the cohort, 63.9% (n=6296) women. The mean blood pressure was 141± 18/74± 11 mmHg. Of these, 4956 were without elderly care, 1267 lived in nursing homes, 2313 received home care, 1188 with security alarm, 132 received other services like support with social participation or meal service. Comorbidities varied across levels of elderly care ($p<0.001$).
Conclusions and clinical implication: The findings of this study can in the future contribute to better understanding of the impact of elderly care on treatment of hypertension.

MedicinVisit – Giving doctors what they want (short personalized unbiased educational in-clinic visits)

Undergraduate and postgraduate medical education
Continuous Professional Development (CPD)

Dagmar Abelone Dalin[1]
Armin Andersen[1], Ida Kronberg Jensen[1], Ida Frederikke Iuel[1], Katrine McLain Christensen[1], Kristian Karstoft[1, 2], Jon Trærup Andersen[1, 2]
[1] Department of Clinical Pharmacology, Bispebjerg university hospital, Denmark.
[2] University of Copenhagen, Denmark

Introduction: Continuous professional development is vital. Academic Detailing(AD) is method of providing short personalized unbiased educational in-clinic visits.
Aim: The aim of this project was to build and examen the viability of a publicly funded AD program for general practice in the Capital Region of Denmark.
Methods: We started in 2017 with a small feasibility study, to evaluate if the AD was viable in Denmark. In 2021 we launched full-scale campaign to examine the acceptance-rate. We invited all general practices in the Capital Region of Denmark to participate. To saturate the demand, we had no fixed end date for the campaign and we accepted all bookings no matter the day or time. In 2024-2025 we made three campaigns in a sustainable model for the detailers, meaning only three months for each campaign, only two days a week for each detailer, and no less than four clinics a day.
Results: In the 2017 feasibility study 70 clinics with 137 physicians were visited. 136 physicians would accept another visit. In the first full-scale campaign we visited 351 clinics (with a total of 698 physicians and 489 other clinical personnel) giving an acceptance rate of 58 % of all clinics in the Capital Region of Denmark. The last three campaigns ran in September-November 2024 (ADHD), March-May 2025 (OAB) and September-November 2025 (BPSD), respectively. We visited 338-370 clinics with 725-776 physicians and 437-452 other clinical personnel.
Conclusions and clinical implication: These findings show a demand in general practice and we succeeded building a viable Academic Detailing program in the Capital Region of Denmark.

Collection of a urine sample in primary care: exploring what women with an ITU think. A qualitative study.

Infections
Clinical General Practice
Ana Moragas[1, 2, 3]
Carl Llor[1, 2, 4]
[1] Fundació Institut Universitari per a la Recerca a l'Atenció Primària de Salut Jordi Gol
[2] CIBER de Enfermedades Infecciosas, Instituto de Salud Carlos III
[3] Jaume I Health Centre, University Rovira i Virgili
[4] Research Unit for General Practice, Department of Public Health, University of Southern Denmark

Introduction: Urinary tract infections (UTI) are common in general practice. Dipsticks are routinely used, with urine culture as the gold standard. Patients are advised to wash and let the first portion of urine pass and collect a midstream sample to reduce contamination, but this can be hard to explain and perform. Little research has explored how women understand and experience urine sample collection.
Aim: This study was aimed at exploring knowledge of urine collection among women participating in a randomised clinical trial (RCT).
Methods: Qualitative study embedded in a RCT on clinical effectiveness and bacteriological eradication of short-term antibiotic regimens among women attending primary care with a suspected UTI. A total of 17 interviews were conducted with women recruited to this RCT in one urban healthcare centre. Interviews were transcribed and thematically analysed.
Results: Many women were unaware of the need for a midstream urine sample or found it difficult to wash and collect one during a UTI in the primary care facilities. Most did not realise samples could be contaminated or understand that midstream collection helps prevent this. Knowledge about how tests guide treatment also varied, with some trusting dipstick results and others doubting them, especially when they are negative. Overall, information from clinicians was inconsistent, and many women wanted clearer verbal or written guidance.
Conclusions and clinical implication: Women's views on and understanding of urine sampling are not well understood. Better communication could reduce contamination and the need for repeat testing.

Stage of lung cancer at diagnosis for patients with COPD treated in primary versus secondary care

Screening programs and risk communication
Prevention

Gina Therese Ransedokken Holte[1]
Linda Juel Ahrenfeldt[1], Dorte Ejg Jarbøl[1], Lisa Maria Sele Sætre[1], Jesper Lykkegaard[1]
[1] Research Unit of General Practice, Department of Public Health, University of Southern Denmark, Campusvej 55, 5230 Odense M, Denmark

Introduction: Patients with chronic obstructive pulmonary disease (COPD) have higher risk of lung cancer. Timely diagnosis is crucial to prognosis. For individuals with COPD, the overlap of symptoms may delay while the closer pulmonary follow-up advances the diagnosis. In Denmark, COPD is typically managed in primary care, whereas patients with severe disease or diagnostic challenges are referred to hospital.
Aim: To examine whether stage of disease at lung cancer diagnosis differs between patients without COPD and patients with COPD managed in respectively primary and secondary care.
Methods: In this register-based study we followed all lung-cancer-free residents of North, Central and South Denmark above 30 years of age for two years. Subjects were identified through register data using COPD diagnostic codes obtained from primary care registers and hospital databases. The exposure was COPD and the managing setting, and the outcome was local or advanced TNM-stage at time of diagnosis. Cox regression was used to analyse time to lung cancer, and for those with lung cancer, logistic regression to analyse the odds of late-stage disease, adjusting for age, sex, comorbidities and socioeconomics. Hospital was considered the managing setting, if treated there during two years before diagnosis, but not started within the last month.
Results: To be presented at the conference.
Conclusions and clinical implication: This study will provide insight into whether patients with COPD managed in primary care may benefit from closer lung cancer surveillance, for example through targeted approaches within population screening programmes.

Nurses experiences of telephone counselling for mental health problems after education in Primary Care Behavioral Health

Communication and consultation skills
Continuous Professional Development (CPD)

Emma Linder[1]
Jenny Koppner[2, 3], Lisa Kastbom[2, 4], Hanna Israelsson Larsen[1, 2]
[1] Region Östergötland, Primärvårdscentrum, Vårdcentralen Cityhälsan Centrum.
[2] Linköpings universitet, Institutionen för hälsa, medicin och vård, Avdelningen för prevention, rehabilitering och nära vård. Linköpings universitet, Medicinska fakulteten.
[3] Region Östergötland, Primärvårdscentrum, Vårdcentralen Vikbolandet.
[4] Region Östergötland, Primärvårdscentrum, Vårdcentralen Ekholmen.

Introduction: Mental health problems are increasingly prevalent globally and in Sweden. A considerable number of those patients are managed in primary care. In Sweden, the first point of contact is telephone counselling with a nurse, a complex task demanding strong communication skills and clinical reasoning to support the patient, provide appropriate self-care advice, and refer to the correct level of care. However, decision-support tools for nurses remain insufficient to address this complexity and there is a need among nurses to enhance clinical skills regarding mental health. The Primary Care Behavioral Health (PCBH) model integrates behavioral health into primary care to improve healthcare staff's behavioral and mental health knowledge. Training nurses in PCBH may support a more structured approach to managing mental health problems, but little is known about how nurses interpret and apply PCBH principles in practice.
Aim: To explore nurses' experiences of telephone counselling with patients seeking help for mental health problems after PCBH training, focusing on clinical approach, confidence, communication and ethical aspects.
Methods: A qualitative design was used. Semi-structured interviews were conducted with 24 registered nurses at twelve primary care centers in 2025. All participants had received education in PCBH as part of a broader implementation initiative. Data is analyzed using qualitative content analysis.
Results: Analysis is ongoing and will be finalized in time for the conference.
Conclusions and clinical implication: This study will provide insights into how PCBH education affects nurses' ability to manage mental health-related calls and may contribute to future training and organizational strategies to strengthen telephone counselling in primary care.

Exploring Sexual Health Concerns and Violence Among Swedish Outpatients Using SEXIT Adult

Screening programs and risk communication
Prevention

Alexis Gainza Solenzal[1, 2]
Kristofer Bjersåå[3, 4], Eva Elmerstig[5], Sandra Weineland[6, 7], Johanna Ejblom[5], Sofia Hammarström[2, 5, 8]
[1] Center for Sexual Medicine, Region Västra Götaland, Gothenburg, Sweden
[2] Family Medicine, School of Public Health and Community Medicine, Institute of Medicine, Sahlgrenska Academy, University of Gothenburg, Sweden
[3] Primary Care, Närhälsan Majorna, Region Västra Götaland, Gothenburg, Sweden
[4] Department of Surgery, Clinical Sciences, Sahlgrenska Academy, University of Gothenburg, Sweden
[5] Department of Social Work, Centre for Sexology and Sexuality Studies, Malmö University, Malmö, Sweden
[6] Department of Psychology, University of Gothenburg, Gothenburg, Sweden
[7] Research and Development, Primary Health Care, Region Västra Götaland, Sweden
[8] Knowledge Center for Sexual Health, Region Västra Götaland, Gothenburg, Sweden

Introduction: Sexual health concerns, possible risk-taking behaviors and experiences of violence are common among outpatients and often perceived as shameful. Health care professionals rarely explore these concerns, mainly lacking necessary knowledge. The SEXual health Identification Tool (SEXIT) is a toolkit that helps address sexual health, risk-taking and violence. This is the first study to explore the use of the SEXIT Adult method with a diverse outpatient sample.
Aim: This study investigated the SEXIT Adult questionnaire's ability to recognize the need for in-depth conversations on sexual health, risk-taking and violence and examined if risk/concern responses varied by age, gender identity, sexual orientation and whether the clinic was specialized in sexual health or not.
Methods: This study was performed with consecutive data collection by paper questionnaire based on 438 SEXIT Adult questionnaires from 10 public outpatient care facilities in Sweden during a three-month period in 2024/2025. The analyses are based on descriptive statistics and parametric tests.
Results: In total, 49.1% reported ongoing sexual problems, 58% reported experiences of sexual violence and 4.4% reported crossing sexual boundaries. Patients at clinics specialized in sexual health more often reported concerns than patients at clinics not specialized in sexual health. Patients aged 30-54 reported more possible concerns than both younger and older patients. Sexual minority individuals reported higher rates of concern responses compared to heterosexual individuals.
Conclusions and clinical implication: SEXIT Adult identifies a likely un-met need for conversations on these topics, emphasizing the importance of addressing these questions in outpatient consultations and highlighting the need for sexual minority informed knowledge and care.

How patients experience generalist-performed point-of-care ultrasound examinations: an integrative systematic review

Patient centered care
Clinical General Practice

Pernille Gram[1]
Julie Jepsen Strøm[1], Alexandra Brandt Ryborg Jønsson[2], Martin Bach Jensen[1, 3], Camilla Aakjær Andersen[1, 3]
[1] Center for General Practice at Aalborg University, Denmark
[2] Department of People and Technology, Roskilde University, Denmark
[3] Department of Clinical Medicine, Aalborg University, Denmark

Introduction: The expanding use of point-of-care ultrasound (POCUS) in general practice affects both diagnostics and patient management and may influence patients' experiences of care, including potential benefits and unintended harm. As patient perspectives are essential when implementing and evaluating healthcare innovations, consolidated evidence on patients' experiences with POCUS is needed to support its appropriate integration in general practice and minimize adverse events.
Aim: To synthesize and analyze the published scientific literature on patients' experiences with POCUS performed by generalist medical doctors.
Methods: An integrative systematic review was conducted, incorporating both quantitative and qualitative studies. Systematic searches were carried out in PubMed, Embase, the Cochrane Library, CINAHL, and PsycNet, supplemented by forward and backward citation searching, Google Scholar searches, and AI-assisted searches. Title/abstract screening, full-text assessment, data extraction, and critical appraisal were performed by two independent reviewers. Quantitative and qualitative data were analyzed separately, stratified by primary and secondary care settings. This review was prospectively registered in PROSPERO with the registration number: CRD420251062390.
Results: The systematic search identified 19.075 unique records for title/abstract screening. Of these, 172 publications were selected for full-text review. Analysis is ongoing. Further results will be presented at the congress.
Conclusions and clinical implication: By integrating the qualitative and quantitative evidence, this review provides a comprehensive overview of the published literature on patients' POCUS experiences. The findings can support appropriate clinical use in general practice, inform implementation efforts across research, practice, and policy, and highlight key knowledge gaps for further investigation.

Exploring Cross-Sectoral Collaboration to Improve Access to Somatic Healthcare for Patients with Severe Mental Illness

Access to care and service delivery
Health Equity

Anne Katrine Højgaard Kurtzhals[1, 2]
Katrine Tranberg Jensen[1, 2], Susanne Reventlow[1, 2], Anne Møller[1, 2], Julie Midtgaard Klausen[3, 4]
[1] Research Unit for General Practice Slagelse, Køge and Copenhagen
[2] Center of General Practice, Department of Public Health, UCPH
[3] Department of Clinical Medicine, UCPH
[4] Mental Health Center Glostrup, CARMEN (Centre for Applied Research in Mental Health Care), Copenhagen University Hospital – Mental Health Services CPH

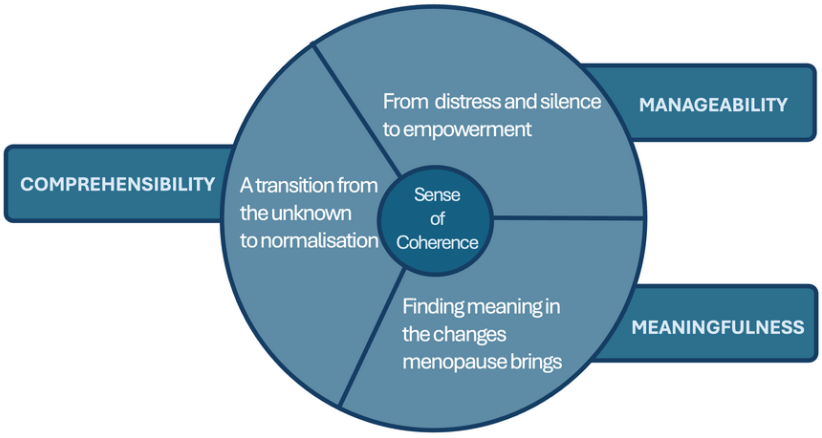
Introduction: Healthcare professionals in both the primary and secondary sectors of the Danish healthcare system report challenges in reaching and supporting a subgroup of patients with severe mental illness (SMI). Nevertheless, research consolidating these insights remains scarce. A Danish general practice pilot (2017–2021) aimed to reduce excess mortality and improve quality of life through extended consultations. The study revealed difficulties in recruiting patients, who were presumably among those most in need of care. While cross-sector collaboration is key to coherent care pathways, it often faces practical barriers. Despite its importance for improving access to general practice, little is known about stakeholders' views on access to somatic care across sectors.
Aim: To explore and thematize how a diverse group of stakeholders across the healthcare system, social care system, and civil society perceive and experience the factors influencing collaboration on timely access to somatic healthcare for patients with SMI.
Methods: A four-hour workshop was held with 11 purposively sampled stakeholders. Prior to the workshop, preparatory meetings, field notes and observations were conducted. Participants brought cases related to cross-sectoral collaboration in treatment courses. The workshop included reflection, case sharing, and prioritization exercizes. Audio recordings, observation notes and workshop materials was collected. Thematic analysis is in progress.
Results: Preliminary analysis indicates strong stakeholder engagement in identifying and elaborating on factors influencing cross-sector collaboration, with several emerging themes appearing to span across stakeholder groups. Final results will be prepared for presentation and publication.
Conclusions and clinical implication: This study is expected to contribute to the literature and the development of a intervention.

Finding sense of coherence in menopause transition - A qualitative study of individual interviews with menopausal women

Women's health
Clinical General Practice
Marianne Natvik[1]
Mette Brekke[1], Siri Vangen[2], Holgeir Skjeie[3]
[1] Department of General Practice, Faculty of Medicine, University of Oslo, Oslo, Norway
[2] Norwegian Research Centre for Women's Health, Oslo University Hospital, Norway
[3] General Practice Research Unit, University of Oslo, Norway

Introduction: Women express lack of knowledge about the menopause transition, finding it hard to understand and navigate symptoms. This midlife period may negatively influence quality of life and function.
Aim: To explore menopausal women's perspectives and coping strategies to comprehend, manage and find meaning in the menopausal transition.
Methods: Individual semi-structured in-depth interviews were conducted in spring 2024 with 11 women, recruited by hairdressers in Norway. Data were analysed using reflexive thematic analysis. The theory of Salutogenesis and Sense of Coherence developed by Antonovsky, was used as guiding theoretical lens.
Results: Three main themes were developed, incorporating the intercorrelated aspects of *Sense of Coherence*: Comprehensibility, Manageability and Meaningfulness. *1. A transition from the unknown to normalisation* – without knowledge, understanding menopausal changes was challenged but normalisation of menopause gave comprehension and feeling less alone. 2. *From distress and silence to empowerment* – manageability increased with comprehension but was challenged by inadequate health care, highlighting the need for a doctor with menopausal knowledge. Discussions with other women and knowledge dissemination helped managing. 3. *Finding meaning in the change menopause brings* – meaningfulness motivated to seek understanding and coping strategies, and gave acceptance and value to this transition, although often accompanied by an undesirable sense of aging.
Conclusions and clinical implication: Lack of knowledge challenges understanding of menopause. Still, women find strategies to manage and give meaning to this transition. This study shows the importance of enhancing knowledge among women, public and general practitioners to understand and manage menopause and improve care and quality of life.

Figure 1 Themes for the article **Finding sense of coherence in the menopause transition** - Marianne Natvik



Assessing fragmentation in cross-specialty healthcare trajectories: Do the general practitioner and the patient agree?

Continuity of care
Clinical General Practice

Emil Baagøe Nørskov[1]
Linda Juel Ahrenfeldt[1], Sören Möller[2], Helle Ibsen[1], Niels Kristian Kjær[1], Nora Kathrine Gylling[1], Line Maria Simonsen[1], Jesper Bo Nielsen[1], Jens Søndergaard[1], Jesper Lykkegaard[1]
[1] Research Unit of General Practice, Department of Public Health, University of Southern Denmark, Odense-Esbjerg, Denmark
[2] Unit for Epidemiology, Biostatistics and Biodemography, Department of Public Health, University of Southern Denmark, Odense, Denmark

Introduction: Increasing specialisation may lead to fragmentation in patients' cross-specialty healthcare trajectories, *defined by inadequate coordination and potentially adverse consequences* such as duplicated care, delayed treatments, polypharmacy, or avoidable complications. General practitioners (GPs) and patients may perceive fragmentation differently.
Aim: To compare GPs' and their listed patients' assessments of the degree of fragmentation in the patients' cross-specialty healthcare trajectories.
Methods: In the Region of Southern Denmark, GPs and their patients with the highest number of hospital contacts completed similar questionnaires assessing categories of adverse consequences inspired by a scoping review, scored on a 1-4 scale. The GPs ranked the fragmentation of seven female and seven male patients, and each patient scored the degree of fragmentation in their own trajectory on a 1–10 scale. Internal consistency testing, confirmatory factor analysis, and latent class analysis will be conducted and associations between GP and patient assessments investigated using regression models.
Results: Will be presented at the conference.
Conclusions and clinical implication: The study results will help support GPs' identification and management of patients in greater need of care coordination by highlighting the most salient adverse consequences.

Development of clinical competencies during postgraduate general practice training - a Nationwide longitudinal study

Undergraduate and postgraduate medical education
Continuous Professional Development (CPD)
Matti Nissilä[1, 2]
Elina Tolvanen[1, 2], Emmi Lautamatti[1, 2], Tuomas Koskela[1, 2]
[1] Faculty of Medicine and Health Technology, Tampere University, Tampere, Finland
[2] Wellbeing Services County of Pirkanmaa, Tampere, Finland

Introduction: Experience in general practice during postgraduate medical training is considered beneficial to all junior doctors. In Finland, a 9-month placement in general practice is mandatory in all postgraduate medical training programmes. The placement aims to improve understanding about comprehensive patient care, care pathways, multidisciplinary work and the social security system. In Finland, previous research data on outcomes of this placement is not available.
Aim: The aim of this study is to measure the development of junior doctors' self-assessed clinical competencies during the 9-month placement in general practice.
Methods: We developed a 28-item questionnaire where participants self-assess their clinical competencies. All graduating medical students in Finland in 2025 were asked to participate. In 2026, the same 28-item questionnaire will be sent to those who started general practice placement and gave permission. Quantitative methods are used to measure the development of clinical competencies.
Results: Of the 294 respondents, 250 (85 %) reported that they were going to start a general practice placement during their first post-graduate year. Of those, 208 agreed for the follow-up. Approximate response rate was 40 %. The development of clinical competencies during the placement is evaluated after the follow-up survey. Preliminary results will be presented at the congress.
Conclusions and clinical implication: Based on previous research, we hypothesise that general practice placement teaches junior doctors for example communication skills, patient-centredness and clinical knowledge. Our study results will help us to evaluate how well the training objectives are achieved. With this information, we can develop the contents of the placement and evaluate its importance in postgraduate medical education.

What is the Point-of-Care? An ecological approach to evaluating healthcare technology

Other
Digitalization and Technology
Line Maria Simonsen[1]
Kirubakaran Balasubramaniam[1], Jens Søndergaard[1], Dorte Ejg Jarbøl[1], Jesper Bo Nielsen[1], Elisabeth Assing Hvidt[1]
[1] Research Unit for General Practice, Department of Public Health, University of Southern Denmark

Introduction: *Point-of-Care* technology for Acute Respiratory Infections (ARIs) in primary care has gained an increased political and commercial interest as part of improving healthcare across sectors. Accordingly, technological innovation is central, yet implementing technology and scientifically assessing it is challenging. To account for human experience and behavior in implementation research, an ecological approach considering complex systemic dynamics is necessary.
Aim: To explore the implementation of *Point-of-Care Polymerase Chain Reaction (POC PCR)* equipment from an ecological approach.
Methods: An ethnographic study was conducted during September 2023-March 2024 including 22 interviews with health professionals, 14 patient interviews, (video)observation in five general practice clinics.
Results: Implementing POC PCR-equipment does not only offer diagnostic differentiation in primary care but also reshapes clinical workflows as well as it conditions professional and patient relations. Such organizational and relational changes are, for example, tied to macrostructural political governance that includes task shifts across the healthcare system, which influences microlevel diagnostic decision-making regarding ARIs. Using POC PCR equipment is therefore non-confinable to a *singular* Point-of time or place, but is inherently a multiscalar process, as agents attune to organizational structures, patient historicity, context-sensitivity, and anticipation of ways to move forward at the same time.
Conclusions and clinical implication: This study provides insights into how *Point-of-Care* is an ecological phenomenon. It shows how using POC PCR in general practice is embedded in broader networks of care and interaction rather than being confined to a singular point of time or location. The study adds to future clinical evaluations of care and diagnostics.

Variation in Utilization of Emergency Primary Health Care and Acute Hospital Admissions Between Municipalities

Quality and safety
Health services
Jesper Blinkenberg[1, 2]
Valborg Baste[1]
[1] National Centre for Emergency Primary Health Care, NORCE Research
[2] Department of Global Public Health and Primary Care, University of Bergen

Introduction: Nordic countries have strong primary care systems. In Norway, municipalities are responsible for emergency primary care services, including consultations and home visits by emergency doctors, who act as gatekeepers to acute hospital admissions. Utilization of these services appears to vary with demographic and organizational factors, but the extent and impact of this variation remain unclear.
Aim: The aim of this study is to examine variations in the utilization of emergency primary health care and acute hospital admissions across municipalities, and to assess how demographic and organizational determinants influence these patterns.
Methods: Using Norwegian national health registries, we will examine patterns in emergency primary care utilization and acute hospital referrals. Frequencies of consultations and aute referrals will be analyzed in relation to municipal demographic characteristics from Statistics Norway and data from the Norwegian Out-of-hours registry.
Results: Registry data will soon be available for analysis. Findings will be presented at the conference.
Conclusions and clinical implication: Emergency primary care utilization and hospital referral rates are important indicators for acute health care utilization. Understanding variations between municipalities is important to improve resource allocation and equity in access to care.

Health literacy and continuity of care: a cross-sectional study using Danish registry and questionnaire data

Continuity of care
Clinical General Practice

Isabella Gringer Jakobsen[1]
Line Flytkjær Virgilsen[2], Helle Terkildsen Maindal[1], Per Kallestrup[1, 2], Anders Prior[1, 2]
[1] Department of Public Health, Health, Aarhus University, Denmark
[2] Research Unit of General Practice, Aarhus, Denmark

Introduction: General practitioners serve as coordinators of their patients' treatment pathways and constitute a cornerstone in the provision and continuity of care. Continuity of care includes relational, informational, and managerial elements. Yet, the complex and specialized health care system challenges care coordination and may lead to poor continuity of care, resulting in adverse health outcomes. To enable patients to navigate the health care system, health literacy (HL) is essential. HL is an interactive concept that encompasses the ability to access, understand and use health information and services to make decisions about health. HL involves personal competencies in combination with situational and organizational resources. We hypothesize that lower HL is associated with a higher risk of poor continuity of care due to navigation challenges.
Aim: To examine the association between HL and continuity of care.
Methods: A cross-sectional study based on data from Danish nationwide registries combined with questionnaire data from the Central Denmark Region 2024, linked at the individual level. HL will be measured using sub-scales from the Health Literacy Questionnaire. Continuity of care will be assessed at the time of questionnaire completion using clinical indicators and continuity of care indices. Linear regression models will be used for continuous outcomes and negative binomial regression models will be used for count outcomes.
Results: Data is in process. Results are expected to be ready for presentation at the conference.
Conclusions and clinical implication: The study will provide knowledge to identify patients who may benefit from differentiated services and may ultimately support more person-centered care.

Having a bite: a doughnut model for sustainable health care research

Sustainable healthcare practices
Environmental Health and Sustainability
Ásthildur Árnadóttir[1]
Signe Nørgaard[1], Anne Katrine Højgaard Kurtzhals[1], Salli Rose Tophøj[1], Selma Augusta Quist Møller[1], Lucy Bray[1], Torsten Risør[1], Anne Møller[1], Susanne Reventlow[1]
[1] Research Unit for General Practice Slagelse-Køge, Denmark

Introduction: Social inequality and climate crises threaten public health across the globe. The doughnut economic model provides a new framework for sustainable development, encompassing both these challenges. The doughnut provides a valuable framework to implement a sustainable way of research without overshooting the planetary boundaries or falling short of social boundaries needed to ensure health and equity. However, can this framework be downscaled to research?
Aim: To introduce the doughnut model and discuss the possibilities and barriers for applying the framework to research. The authors to this workshop are not economists, but general practitioners or researchers with a particular interest in sustainability. Therefore, the workshop is aimed at those interested in sustainable solutions and/or research in general practice.
Type of interactivity with participants: The workshop starts with a short introduction to the doughnut economic model and how to approach the framework when conducting research. Researchers from General Practice Research Unit Slagelse-Køge will provide examples from their own research on how the doughnut can be implemented throughout the research process. During the workshop, participants will be asked to work in groups to apply the doughnut model as an approach to more sustainable research. This can be based on your own research and anywhere in the research process (hypothesizing, conducting or reporting). "Research cases" will be provided, if needed. The workshop concludes with a plenary discussion, sharing reflections and ideas for the further development of sustainable research.

Long-Term Growth After Extended Prenatal and Postnatal Home Visits in a Rural Swedish Municipality: A Pilot Study

Preventive programs
Prevention
Victor Lindh[1, 2]
Sofia Dalemo[3, 4]
[1] Närhälsan Ågårdsskogen Healthcare Centre, Lidköping, Sweden
[2] The Skaraborg Institute, Skövde, Sweden
[3] R&D Centre Skaraborg, Skövde, Sweden
[4] Public Health and Community Medicine, Institute of Medicine, Sahlgrenska Academy, University of Gothenburg, Gothenburg, Sweden

Introduction: Children in disadvantaged communities face higher health risks. Extended early home visit programmes have been shown to strengthen child health and reduce social disparities.
Aim: This study aimed to assess the long-term effects on children's growth following a rural Swedish intervention with extended pre- and postnatal home visits.
Methods: The sample comprised first-time parents who were in an extended home visiting programme, which included a late pregnancy visit by a midwife and parent advisor, followed by five visits during the child's first 15 months by a parent advisor and child health nurse (2018–2019). The intervention group's children were compared with two sex-matched controls per child from the standard child healthcare service programme. Age-adjusted Body Mass Index (iso-BMI) was recorded at 2.5, 3, 4, and 5–6 years. Persistent deviation was defined as abnormal iso-BMI at both 2.5 years and final follow-up.
Results: At 2.5 years, 96% of the intervention group's children had normal iso-BMI, compared with 75% of controls. Differences decreased towards age six (85.5% vs 81.1%). No children in the intervention group showed persistent deviations, whereas 9.4% of controls did.
Conclusions and clinical implication: Extended home visits were associated with healthier BMI in early childhood. This is a follow-up to a pilot study constituting a small study population, and the results should be interpreted as such. Nevertheless, the results should be considered when planning resources for early childhood services to ensure fair health for all children and support a sustainable society.

Indications of overtreatment and undertreatment of hypothyroidism in general practice – A scoping review

Other
Clinical General Practice
Birgitte Norrel Sloth[1]
Magnus Bye Blumenfeld[1], Jette Kolding Kristensen[1], Jan Brink Valentin[2], Allan Carlé[3, 4], Janus laust thomsen[1]
[1] Center for General Practice, Aalborg University, Aalborg, Denmark
[2] Danish Center for Health Services Research, Department of Clinical Medicine, Aalborg University, Aalborg, Denmark
[3] Department of Clinical Medicine, Aalborg University, Aalborg, Denmark
[4] Department of Endocrinology, Aalborg University Hospital, Aalborg, Denmark

Introduction: Hypothyroidism is a common endocrine disorder with serious clinical and public health consequences if not correctly diagnosed and treated. It is most often managed in primary care, but despite clear clinical guidelines, both overtreatment and undertreatment remain common.
Aim: To map indications of inappropriate management of hypothyroidism in primary care and identify diagnostic and behavioural drivers of variation.
Methods: We conducted a scoping review following Arksey and O'Malley and reported according to PRISMA-ScR. Five databases were searched from the year 2000 onwards for studies involving adults with overt or subclinical hypothyroidism managed in primary care. Studies were included if they explicitly reported over-/undertreatment or allowed indirect identification through prescribing patterns, diagnostic work-up, or monitoring practices. Two reviewers independently charted and synthesised data. Studies conducted solely in specialist or hospital settings were excluded.
Results: Nineteen studies were included. Overtreatment was commonly linked to early initiation at mild biochemical abnormalities, treatment without confirmatory testing, and suppressed TSH during follow-up. Undertreatment was associated with incomplete diagnostic evaluation, delayed initiation despite biochemical indications, and insufficient monitoring. Additional inappropriate management included inconsistent use of age-adjusted thresholds, limited FT4 or antibody testing, and long titration intervals. Surveys reflected similar inappropriate management while showing higher self-reported guideline adherence than observed in practice.
Conclusions and clinical implication: Management of hypothyroidism in primary care shows substantially inappropriate practice, contributing to both over- and undertreatment. Improving diagnostic routines, promoting age-adjusted and symptom-informed decisions, and strengthening follow-up processes may reduce unwarranted variation and improve patient safety.

Epidemiology of hypothyroidism in general practice: prevalence, trends, and regional variations

Other
Clinical General Practice
Birgitte Sloth[1]
Jette Kolding Kristensen[1], Jan Brink Valentin[2], Allan Carlé[3, 4]
[1] Center for General Practice, Aalborg University, Aalborg, Denmark
[2] Danish Center for Health Services Research, Department of Clinical Medicine, Aalborg University, Aalborg, Denmark
[3] Department of Clinical Medicine, Aalborg University, Aalborg, Denmark
[4] Department of Endocrinology, Aalborg University Hospital, Aalborg, Denmark

Introduction: Hypothyroidism is a common endocrine disorder with significant clinical and public health consequences when not properly diagnosed or managed. In Denmark, the absence of a centralized thyroid registry limits systematic quality monitoring. Increasing use of thyroid testing and gradually lower thresholds for initiating levothyroxine have raised concerns about overdiagnosis and overtreatment. Given the risks associated with both insufficient and excessive hormone replacement, a clearer understanding of current diagnostic and treatment patterns is needed.
Aim: To describe the epidemiology of hypothyroidism in Denmark and to examine trends in testing and diagnostic practices in general practice.
Methods: We will conduct a retrospective study using nationwide Danish health registers, linking laboratory results, prescription data, and demographic information. Annual cohorts will be used to quantify prevalence and incidence and examine changes in testing and diagnostic patterns within general practice over time.
Results: Preliminary analyses suggest a continued rise in the prevalence of thyroid disease in Denmark. The proportion of affected women appears higher than previously reported, and diagnoses seem to occur at younger ages than expected. Full results are expected to be ready in April and presented in May.
Conclusions and clinical implication: This study will provide valuable insight into the epidemiology of hypothyroidism in Denmark and illuminate current trends in case detection, diagnostic evaluation, and management in general practice. By mapping how hypothyroidism is identified and diagnosed across the population, the findings may help pinpoint areas where testing and diagnostic practices could be optimized.

The optimal antibiotic treatment duration for community-acquired pneumonia in adults in Danish general practice (CAP-D)

Infections
Clinical General Practice

Eskild Johansen[1]
David Gillespie[2], Rune Aabenhus[3], Henrik Nielsen[4], Malene Plejdrup Hansen[1, 5]
[1] Centre for General Practice, Aalborg University, Aalborg, Denmark
[2] Centre for Trials Research, School of Medicine, Cardiff University, Cardiff, Wales, United Kingdom
[3] The Research Unit for General Practice, Copenhagen and Section of General Practice, Institute of Public Health, Copenhagen University, Denmark.
[4] Department of Infectious Diseases, Aalborg University Hospital, Aalborg, Denmark.
[5] Research Unit of General Practice, University of Southern Denmark, Denmark.

Introduction: Antibiotic exposure is a key driver of antimicrobial resistance, a major threat to global health. In Denmark, most antibiotics are prescribed in general practice, where acute lower respiratory tract infections, including community-acquired pneumonia (CAP), are among the most common indications. Phenoxymethylpenicillin is the recommended first-line treatment for CAP in Danish general practice. However, the recommended treatment duration is not supported by robust evidence and largely reflects longstanding clinical practice. Danish guidelines recommend both five and seven days of treatment, and prescribing practice varies. Trials indicate that short-course (<7 days) treatment for CAP is non-inferior to longer (≥7 days) regimens, but neither phenoxymethylpenicillin nor treatment in general practice has been evaluated.

Aim: The CAP-D trial aims to determine the optimal treatment duration with phenoxymethylpenicillin for CAP in adults in Danish general practice.

Methods: The CAP-D trial is an open-label, pragmatic, randomised controlled, five arm DURATIONS trial. Participants are recruited from 27 general practices across Denmark. Eligible participants are adults without pre-existing lung disease, presenting with CAP symptoms, for whom the GP considers antibiotic treatment appropriate. Consenting participants are randomised to one of five treatment durations—three, four, five, six, or seven days—of phenoxymethylpenicillin 1.2 MIE q.i.d.

Results: Recruitment will continue until 31 March 2026, with data analysis expected to be completed before the Nordic Conference of General Practice 2026.

Conclusions and clinical implication: The CAP-D trial will provide more robust evidence on the optimal duration of antibiotic treatment for CAP in general practice, potentially helping standardise treatment across the Nordic countries.

Medications suitable for deprescribing in older primary care patients from an overall medical perspective

Multimorbidity and complex care needs
Clinical General Practice

Naldy Parodi López[1, 2]
Staffan A. Svensson[2, 3], Susanna M. Wallerstedt[2, 4]
[1] Unit of Clinical Pharmacology, Department of Pharmaceuticals, Sahlgrenska University Hospital, Gothenburg, Sweden
[2] Department of Pharmacology, Sahlgrenska Academy, University of Gothenburg, Gothenburg, Sweden
[3] Nötkärnan Bergsjön Primary care centre, Gothenburg, Sweden
[4] Centre for Health Technology Assessment, Sahlgrenska University Hospital, Region Västra Götaland, Gothenburg, Sweden

Introduction: Older patients are often treated with multiple medications simultaneously. Deprescribing implies the discontinuation or dose reduction of medications to reduce the risk of adverse effects.
Aim: To identify medications suitable for deprescribing in older people from an overall medical perspective.
Methods: Data from a previous study were used, including 302 patients who had a physician consultation in primary care in Sweden over a 3-week period (59% female; median: 74 years; 0–20 drugs in the medication list). Two general practitioners, one also specialised in clinical pharmacology, independently identified medications suitable for deprescribing, followed by a consensus discussion. Descriptive statistics were used for analysis.
Results: In all, 130 (43%) patients had ≥1 medication suitable for deprescribing (65% female; median: 75 years; 1–20 drugs in the medication list), according to two experienced physicians in consensus. A total of 191 medications suitable for deprescribing were identified (181 withdrawals; 10 dose reductions). The most common underlying reason was the presence of a medication whose expected benefits were unlikely or uncertain to outweigh its expected risks, for example when an indication was lacking or unclear (n=179; 94%). Medications most often selected for deprescribing were proton pump inhibitors (PPIs; n=40), furosemide (n=20), and low-dose acetylsalicylic acid (n=14).
Conclusions and clinical implication: Almost every other older patient in primary care could be considered for deprescribing, most often because of a negative benefit-risk balance for the treatment. In clinical practice, the general practitioners could focus on PPIs, furosemide, and low-dose acetylsalicylic acid at initiation and prescription renewal.

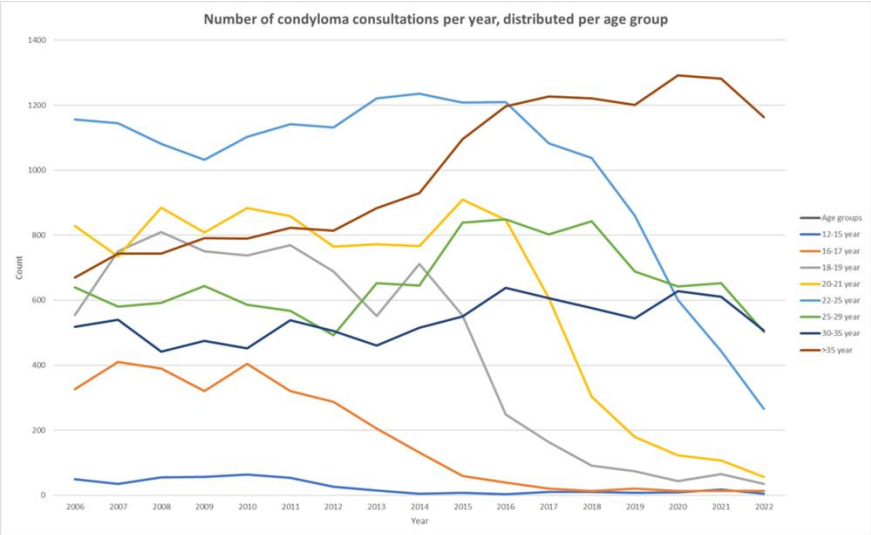
Impact of HPV Vaccination on the Prevalence of Condyloma Acuminata in Norway: An observational registry-based study

Preventive programs
Prevention

Ingrid Rebnord[1]
[1] Department of Global Public Health and Primary Care, University of Bergen, Norway

Introduction: HPV vaccine against Human Papillomavirus has been offered to girls in the 7th grade since 2009/2010. Since 2018 boys have been included. HPV infection is the most common sexually transmitted infection worldwide and is a necessary cause of cervical cancer development. HPV infection is also responsible for condylomas where approximately 90% are caused by HPV genotypes 6 and 11.

Two different vaccines are available: Cervarix, which is used in the national vaccination program, provides protection against HPV genotypes 16 and 18 and Gardasil that also protects against, genotypes 6 and 11.
Aim: The aim of this study is to examine the prevalence of condylomas in Norwegian general practice before and after introduction of HPV vaccination.
Methods: National registry data from all Norwegian GPs and The Norwegian Prescription Database from 2006 to 2022. Variables: Diagnoses, Patient age, year, number of consultations and delivered Podofyllotoksin prescriptions per year.
Results: From 2006 to 2022 there was a significant reduction in number of Condyloma Acuminata consultations from 3650 in 2007 to 1193 in 2022 ($p<0.01$), and the change point is after 2015 (figure). The decrease is only in the youngest age groups, up to 29 years. For the age group >35 years there has been an increase until 2021. The prescription of Podofyllotoksin has at the same time decreased after 2015, most for female.
Conclusions and clinical implication: HPV Vaccination have reduced the prevalence of condylomas significantly in the Norwegian population. Future analysis including both sexes will determine whether HPV infections can be eradicated in the future.



How Active Are Women in the First Year of Motherhood? A Systematic Review of Device-Measured Physical Activity

Other

Prevention

Freja Hauberg Hallen[1]

Sebastian Dyrup Skejø[1, 2], Rasmus Østergaard Nielsen[1, 2], Solvej Videbæk Bueno[1, 2]

[1] Research Unit for General Practice, Aarhus, Denmark

[2] Department of Public Health, Aarhus University, Denmark

Introduction: Physical activity has been linked to numerous health benefits, including enhanced mental well-being, reduced postpartum weight retention, and a lower risk of postpartum depression. Self-reported assessment suggest that postpartum women often engage in lower activity levels than recommended, yet research using device-measured physical activity remains limited.

Aim: This systematic review summarises previous findings of device-measured moderate- and vigorous-intensity physical activity (MVPA) in minutes per day from childbirth to one year postpartum.

Methods: A systematic literature search was conducted in PubMed and Embase. Eligible studies reported device-measured MVPA at any time within the first 12 months postpartum in healthy parous women.

Results: Out of the 1,437 studies identified, 15 studies were included, with study populations ranging from 20 to 532 women. MVPA was measured using various physical activity trackers, with ActiGraph devices being the most common (n=10). Definitions of MVPA varied, utilizing counts per minute, Euclidean Norm Minus One, metabolic equivalent tasks, or proprietary algorithms. MVPA estimates ranged from 2.14 to 87.3 minutes per day. Most studies revealed an estimate of MVPA ≤27.6 minutes per day (n=10), while four studies reported ≥55.5 minutes per day.

Conclusions and clinical implication: MVPA estimates varied widely, with most studies reporting levels below recommended thresholds. Differences in study characteristics, tracker placement, data processing, and the cut-offs used to define MVPA likely contributed to variability. More standardised methodologies are needed to improve comparability and thereby strengthen the evidence base. Such improvements may support more precise guidance and counselling in general practice, helping new mothers achieve health-enhancing physical activity levels.

GPs' Perceptions and Experiences of Managing Knee Osteoarthritis: Barriers and Facilitators in Primary Care

Musculoskeletal
Clinical General Practice

Astrid Maria Carolina Trulsson[1, 2]
Torsten Risør[1], Susanne Reventlow[1], Søren T. Skou[2, 3], Anne Møller[1]
[1] Research Unit for General Practice and Section of General Practice, Department of Public Health, University of Copenhagen, Denmark
[2] The Research and Implementation Unit PROgrez, Department of Physiotherapy and Occupational Therapy, Næstved, Slagelse, Ringsted Hospitals, Slagelse, Denmark
[3] Center for Muscle and Joint Health, Department of Sports Science and Clinical Biomechanics, University of Southern Denmark, Odense, Denmark

Introduction: Knee osteoarthritis (OA) is highly prevalent and a growing public health concern. International and national guidelines recommend non-surgical treatments—inclusing education, exercise, and weight management—as core components of management, yet uptake remains low. General practitioners (GPs) play a key role in delivery, but little is known about how they navigate guideline-based OA care within the Nordic context.
Aim: To investigate how Danish GPs perceive and manage knee OA, focusing on treatment choices and referrals, and to identify barriers and facilitators to delivering guideline-recommended care.
Methods: Twelve semi-structured online interviews were conducted with seven GPs and five GP trainees from two Danish regions using convenience and self-selection sampling. Data were analysed inductively using thematic analysis.
Results: Four themes characterised GPs' approaches to knee OA management: (1) knowledge and practice extend beyond guidelines, (2) non-surgical treatments are limited and inconsistently provided, (3) conceptual and relational tensions are negotiated, and (4) fostering patient motivation is challenging.
Conclusions and clinical implication: GPs reported generally up-to-date knowledge of non-surgical treatments and positive views of exercise and physiotherapy-led care, but noted limited dissemination of guidelines and referral criteria. Structural barriers—including fragmented pathways, inconsistent municipal services, and practical challenges such as cost and transport—restricted access to non-surgical options. Weight loss was viewed as effective but difficult to sustain, highlighting the need for weight-inclusive and feasible approaches in routine practice.

Improving cross-sector coordination, establishing multidisciplinary OA services, addressing tensions around weight management, and clarifying responsibility for supporting patient motivation may strengthen delivery of non-surgical OA care in general practice and contribute to more sustainable, high-value management.

The prevalence of chronic kidney disease among patients with hypertension, coronary artery disease and diabetes.

Cardiovascular
Clinical General Practice

Ulla Linnakoski[1]
Nina Tusa[2, 3], Ulla Mikkonen[1, 2], Hannu Kautiainen[4], **Pekka Mäntyselkä**[2, 5]
[1] Wellbeing Services County of North Savo, Health services, Kuopio, Finland
[2] Institute of Public Health and Clinical Nutrition, University of Eastern Finland
[3] Wellbeing services county of North Savo, Educational services, Kuopio, Finland
[4] Folkhälsan Research Center, Helsinki, Finland
[5] Wellbeing Services County of North Savo, Kuopio University Hospital, Kuopio, Finland

Introduction: Hypertension, diabetes, obesity and ageing are commonly known risk-factors for chronic kidney disease (CKD). CKD itself increases the risk for cardiovascular diseases.
Aim: Little is known about the prevalence of CKD, albuminuria and the high-risk patients in primary care setting with hypertension, coronary artery disease (CAD) and diabetes.
Methods: This study analyzed participants (n=517) of a randomized controlled trial at baseline. The patients were recruited from Siilinjärvi health center 2017-2018 in their routine yearly checkup visit due to the chronic disease. The data consist of eGFR, albuminuria (UACR) measurements. CKD is defined GFR <60 ml/min/1.73 m^2 (GFR categories G3a–G5) and/or albuminuria > 3mg/mmol (A2-A3) for over 3 months. Definition of high or very-high risk for progression to dialysis as well as for cardiovascular risk progression by the KDIDO Prognosis of CKD by GFR and albuminuria categories table: GFR <45 ml/min/1.73 m^2, albuminuria > 30 mg/mmol, or albuminuria > 3-30mg/mmol and GFR <60 ml/min/1.73 m^2.
Results: CKD prevalence was 18.8% among all patients and the highest amount of them had mildly to moderately decreased eGFR (G3a 45–59 ml/min/1.73 m^2) without albuminuria. 4.4% of 517 were high or very-high risk progression.
Conclusions and clinical implication: A fifth of these primary care patients with common cardiovascular diseases or diabetes had CKD. However, only few of them were at high to very high risk for cardiovascular disease progression.

The general practice office as an organization - an ethnographic study of interaction and collaboration

Interprofessional collaboration and team-based care
Health services

Kari Kogstad[1]
[1] Kari Kogstad, General practice research unit, Department of public health and nursing, NTNU, Trondheim.

Introduction: The local health center plays a crucial role in Norwegian healthcare. Equal access to quality health services at the right time is the core value guiding all 1300 offices. The work culture and collaborative processes that support this social mission have received little research attention.
Aim: To gain new insights into daily interactions between general practitioners and medical secretaries, focusing on how they relate to core values of general practice, including "give most to those in greatest need."
Methods: An ethnographic study. Through our professional network, we have recruited busy offices from both urban and rural areas. The first author conducts fieldwork involving participant observation and writing a logbook. I observe actions, negotiations, decision-making, and prioritization. How is unexpected, yet important, information communicated? The data collected is coded according to themes identified during the initial reading. Revisitation and in-depth interviews are conducted. Analysis is an iterative process guided by an understanding of the theoretical frameworks.
Results: Preliminary findings will be shared. For example, medical secretaries often see themselves as both protectors of doctors and helpers to patients. They strive to prioritize those who need assistance the most, even though this is mostly unspoken.
Conclusions and clinical implication: Clearly explaining what is happening helps us understand our actions, allowing us to plan wisely for the future. This research will empower general practitioners and team members for a sustainable tomorrow.

Lipid-Lowering Therapy in Myocardial Infarction Patients in Primary Care: A One-Year Follow-Up

Cardiovascular
Clinical General Practice

Alar Sepp[1]
Ruth Kalda[2], Martin Serg[3], Margus Viigimaa[4]
[1] Capital Family Doctors, Estonia
[2] University of Tartu, Institute of Family Medicine and Public Health, Estonia
[3] North Estonia Medical Centre, University of Tartu, Estonia
[4] North Estonia Medical Centre, Tallinn University of Technology, Estonia

Introduction: According to the Estonian Myocardial Infarction Registry, mortality from myocardial infarction remains high in Estonia. Patients with myocardial infarction typically present with multiple of cardiovascular risk factors, especially arterial hypertension and dyslipidemia. Mortality of myocardial infarction can be reduced through secondary prevention strategies, including statin and ezetimibe therapy. However, poor adherence to lipid-lowering therapies remains a major challenge.
Aim: The aim of this study was to assess the current status of lipid-lowering treatment among myocardial infarction patients in Estonia.
Methods: The study sample consisted 62 myocardial infarction patients treated at the Cardiology Centre of the North Estonia Medical Centre and listed in three health care centres.
Results: Patients were aged 42 – 94 years (mean 68.6 ± 14.3); 25 were females (40%) and 37 males (60%). The majority (78%) of patients were retired, while 20% were employed. One half (50%) of patients had ST-elevation myocardial infarction and 37% non-ST elevation myocardial infarction. Obesity (body-mass index>30 kg/m2) was more common among women (40%) than men (18%). More than one fifth (21%) of female patients have kidney failure (with GFR below 30 ml/min/1.73m2). Atorvastatin 40 mg daily was the main lipid-lowering drug. Statin therapy was more frequently prescribed to men, while ezetimibe was more often used by women (91% vs. 74%; 9% vs. 26%).
Conclusions and clinical implication: In conclusion, lipid lowering therapy among Estonian myocardial infarction patients remain suboptimal. More aggressive and sustained strategies are needed in primary care, particularly during the first year after myocardial infarction, to achieve treatment goals and reduce mortality.

Treatment regimen for acne in Norway 2012 – 2019, by general practitioners and dermatologists, a Nationwide overview

Infections
Clinical General Practice

Cathrine S Christiansen[1, 2]
Sigurd Høye[1], Jon A Halvorsen[2, 3], Morten Lindbæk[1], Louise Emilsson[2, 4, 5, 6]
[1] The Antibiotic Centre for Primary Care, Department of General Practice, Institute of Health and Society, University of Oslo, Norway
[2] Department of General Practice, Institute of Health and Society, University of Oslo, Norway
[3] Department of Dermatology, Institute of Clinical Medicine, Oslo University Hospital, Norway
[4] Vårdcentralen Nysäter and Centre for Clinical Research, County Council of Värmland, Värmland, Sweden
[5] General Practice Research Unit (AFE), Department of General Practice, Institute of Health and Society, University of Oslo, Norway
[6] Department of Medical Epidemiology and Biostatistics, Karolinska Institute, Stockholm, Sweden

Introduction: Acne is common in adolescents and young adults and carries a well-documented psychosocial burden with increased rates of depression and anxiety. Topical treatment, Tetracyclines, and Isotretinoin are the most used treatments. Prolonged tetracycline courses and inconsistent use of concomitant topical therapy raise concerns about unnecessary antibiotic exposure and antimicrobial resistance.
Aim: To describe acne treatment patterns in Norway (2012–2019), focusing on prescriber specialty, treatment duration, and sequences of therapies, with the goal of informing better regimens and antibiotic stewardship.
Methods: We linked data from the Norwegian Prescription Database, the National General Practitioners Claims Register, the Registered General Practitioners Register, and Statistics Norway. Inclusion criteria were patients aged 12–49 with an acne diagnosis and at least one prescribed acne medication between 2012 and 2019.
Results: Preliminary findings: We included 154,179 patients (mean age 20.9 years; 63% female). Nearly half (48%) received only topical treatment. The most frequent treatment sequence was topical therapy followed by a tetracycline (21%). The second most common treatment was tetracyclines only (10 %), followed by the sequence: topical, tetracycline, then isotretinoin (8%). Overall, 18% received isotretinoin at some point. Patients who progressed from tetracycline to isotretinoin had longer tetracycline exposure (median 112 DDDs) than those who did not (median 86 DDDs).
Conclusions and clinical implication: Earlier initiation of isotretinoin treatment when warranted may reduce excess tetracycline use for acne and thereby contribute to reduced antimicrobial resistance.

Experiences of being diagnosed with untreated unruptured intracranial aneurysm: A Qualitative Interview Study

Overdiagnosis and overtreatment
Environmental Health and Sustainability

Mathilde Vea Iversen[1, 2]
[1] Department of Clinical Medicine, UiT the Arctic University of Norway, Tromsø, Norway
[2] Department of Neurosurgery, University Hospital of North Norway, Tromsø, Norway

Introduction: Unruptured intracranial aneurysms (UIA) are frequent and may be detected as an incidental finding. Aneurysms may rupture and cause a severe subarachnoid hemorrhage; however, most are small and have a low bleeding risk. In addition, there may be a significant treatment complication risk. There is little evidence regarding psychological impact of detecting UIAs not intended for treatment. Generic questionnaires may have limited sensitivity in capturing psychosocial effects associated with a screening diagnosis, and ethical aspects of conducting screening are non-negligible.
Aim: We aim to investigate how people experience and may be affected by having an UIA detected for which treatment is not recommended.
Methods: Qualitative semi-structured interview study with invited participants from Tromsø7 who were diagnosed with UIA through MRA screening and did not receive preventive treatment. Interviews were analyzed using thematical analysis.
Results: Of the 15 participants included, many expressed temporary concern and uncertainty regarding the aneurysm detected but carried on with their lives as normal after receiving thorough information. Some felt reassurance in receiving follow-up, while others wished they never knew about the diagnosis. Some had forgotten about their UIA. Most expressed gratitude for the opportunity to talk about their experiences.
Conclusions and clinical implication: Participants reported varying levels of concern in the period following UIA diagnosis, but most denied worrying about their aneurysm today. However, the interviews also pointed to harms related to the diagnosis of UIAs, including worries articulated through specific actions and precautionary measures, along with signs of changed habits and shifting understandings of bodily health.

Effectiveness and Cost-Effectiveness of a Digital Care Pathway and Asynchronous Communication in Hypertension Management

E-health and telemedicine
Digitalization and Technology
Teemu Ekola[1, 2]
Tuomas Koskela[1, 2]
[1] Faculty of Medicine and Health Technology, Tampere University, Tampere, Finland
[2] The Wellbeing Services County of Pirkanmaa, Finland

Introduction: Hypertension is a leading global risk factor for reduced healthy life years and poses a major challenge for healthcare systems. Digital interventions have shown promise in lowering blood pressure and improving treatment adherence in hypertensive patients. In Finland, digital care pathway and asynchronous digital communication are novel strategies for hypertension management, and are yet to be studied in this context.
Aim: To assess the effect of a digital care pathway (DCP) and asynchronous communication with healthcare professionals on systolic blood pressure and their cost-effectiveness among primary care patients with uncontrolled hypertension.
Methods: This prospective cluster-randomized controlled trial will be conducted in six primary care units within the Pirkanmaa Wellbeing Services County in Finland. Two intervention arms (usual care plus DCP, and usual care plus DCP with asynchronous messaging) and one control arm (usual care alone) are included. Eligible participants are 30–74-year-old patients with uncontrolled clinic blood pressure (≥140/90 mmHg). The target sample size is 600 patients. Follow-up lasts six months. Outcomes will be analyzed using quantitative methods and multivariable modeling under the intention-to-treat principle.
Results: The primary outcome will be the change in clinic systolic blood pressure. Secondary outcomes include achievement of blood pressure targets, changes in cardiovascular risk, quality of life, self-care preparedness, medication adherence, user experience, healthcare utilization, and costs. Cost-effectiveness will be evaluated using incremental cost-effectiveness ratio (ICER).
Conclusions and clinical implication: This study will provide evidence on the effectiveness and cost-effectiveness of digital interventions for hypertension management, advancing knowledge on their suitability and implementation in Finnish primary care.

Objectively Measured Physical Activity and MRI-Derived Abdominal and Hepatic Fat Depots in Adults with Type 2 Diabetes

Obesity and type 2-diabetes
Clinical General Practice

Kim Ahtola[1]
Pontus Henriksson[1], Mikael Forsgren[1, 2, 3], Stergios Kechagias[4], Peter Lundberg[1, 2, 5, 6], Oleg Sysoev[7], Nils Dahlström[1, 2], Martin Bergman[1], Patrik Nasr[2, 4, 8], Mattias Ekstedt[2, 4], Fredrik Iredahl[8, 9]
[1] Department of Health, Medicine and Caring Sciences, Linköping University, Linköping, Sweden
[2] Center for Medical Image Science and Visualization (CMIV), Linköping University, Linköping, Sweden
[3] AMRA Medical AB, Linköping, Sweden
[4] Department of Gastroenterology and Hepatology, Department of Health, Medicine and Caring Sciences Linköping University, Linköping, Sweden
[5] Department of Radiation Physics Department of Health, Medicine and Caring Sciences, Linköping University, Linköping, Sweden
[6] Department of Radiology and Department of Health, Medicine and Caring Sciences, Linköping University, Linköping, Sweden
[7] Division of Statistics and Machine Learning, Deparment of Computer and Information Science, Linköping University
[8] Wallenberg Center for Molecular Medicine (WCMM), Linköping University, Linköping, Sweden
[9] Primary Health Care Center, Department of Health, Medicine and Caring Sciences, Linköping University, Linköping, Sweden

Introduction: Individuals with type 2 diabetes often have adverse fat distribution, but links between objectively measured physical activity, movement composition and MRI-defined fat depots remain unclear.

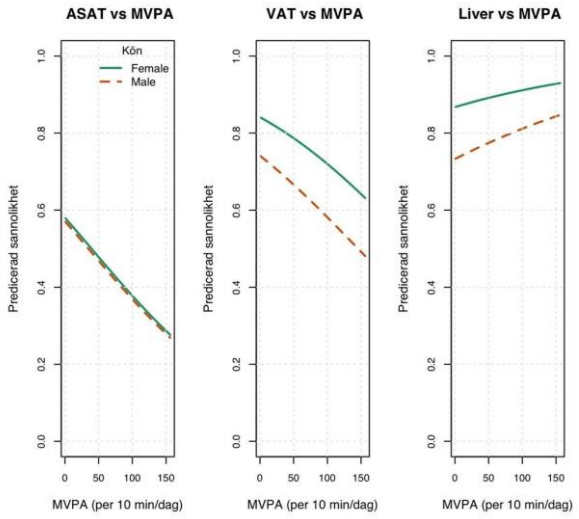
Aim: To examine how physical activity metrics relate to abdominal and hepatic fat depots in adults with type 2 diabetes

Methods: In this cross-sectional study, adults aged 35–75 years with type 2 diabetes were recruited from primary care and underwent whole-body MRI and wrist-worn actigraphy. In total, 239 participants with valid data from both modalities were included. Visceral (VAT), abdominal subcutaneous (ASAT) and hepatic triglyceride content (HTGC) were quantified and analysed as log-transformed volumes and age- and sex-normalised z-scores. Physical activity was characterised using

actigraphy-derived daily minutes of moderate-to-vigorous physical activity (MVPA, per 10 min/day), WHO categories (<150, 150-<300, ≥300 min/week) and 24-hour movement composition using isometric log-ratio coordinates. Associations were examined using multivariable linear and logistic regression adjusted for age and sex, with model performance summarised using adjusted R^2 and AUC.

Results:
Higher MVPA was associated with lower log-transformed ASAT (unstandardized β −0.005 per 10 min/day, p<0.001) and VAT (β −0.004, p<0.001), while the association with HTGC was non-significant (β −0.003, p=0.22). Z-score analyses showed attenuated, often non-significant associations. WHO categories and compositional models showed similar patterns. Discrimination for high VAT-Z was modest (AUC = 0.65).

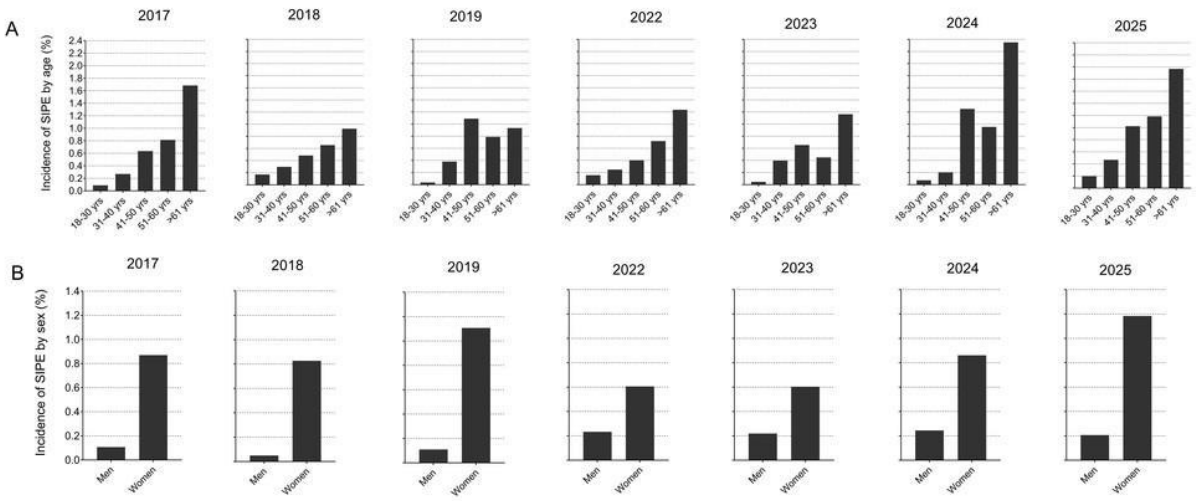
Conclusions and clinical implication: Objectively measured MVPA is associated with lower abdominal fat volumes in adults with type 2 diabetes, whereas associations with liver fat are weak. Increasing MVPA may improve abdominal fat distribution, although physical activity explains only a modest proportion of MRI-derived fat variation.



Swimming-Induced Pulmonary Edema – incidence and clinical management during Sweden's largest open-water swimming event

Respiratory
Clinical General Practice
Maria Hårdstedt[1, 2, 3]
Linda Kristiansson[2, 4, 5], Daniel Lundeqvist[6], Frida Hellberg[3], Annika Braman Eriksson[3], Claudia Seiler[1, 2, 7]
[1] Center for Clinical Research Dalarna, Uppsala University, Falun, Sweden
[2] School of Medical Sciences, Faculty of Medicine and Health, Örebro University, Örebro, Sweden
[3] Vansbro Primary Health Care Center, Vansbro, Sweden
[4] Sandviken North Primary Health Care Center, Sandviken, Sweden
[5] Center for Research and Development, Uppsala University/Region Gävleborg, Gävle, Sweden
[6] Department of Internal Medicine, Mora Hospital, Mora, Sweden
[7] Department of Anesthesiology and Intensive Care, Falun Hospital, Falun, Sweden

Introduction: Swimming-induced pulmonary edema (SIPE) is characterized by dyspnoea, cough, and loss of strength during open water swimming. Growing popularity of open water swimming calls for awareness among health care providers for this potentially life-threatening condition. Vansbro primary health care centre is responsible for the on-site medical care during Vansbrosimningen, an open-water swimming event attracting 10,000 participants yearly.
Aim: To refine diagnostics, monitor incidence and improve acute management of SIPE.
Methods: Since 2017, we have collected data on swimmers with respiratory symptoms at Vansbrosimningen. Lung ultrasound is used to confirm pulmonary edema. Patients are treated on-site with oxygen-driven CPAP or positive expiratory pressure (PEP) device with ambient air.
Results: Over seven years (2017–2019 and 2022–2025), altogether 325 patients were diagnosed with SIPE, corresponding to approximately 47 patients per year. The annual incidence of SIPE ranged from 0.41% to 0.69% (median 0,47%) with an overrepresentation of women (85%) (Fig 1). The incidence increased with age. Based on lung ultrasound, crackles on lung auscultation together with oxygen saturation ≤95% strongly suggested SIPE (positive predictive value 99%). Crackles were predominantly found over the anterior chest. Altogether 303 (93%) SIPE-patients could be discharged, only 22 (7%) needed referral to hospital. CPAP and PEP device have proved efficient in clinical practice with an ongoing randomized controlled trial evaluating positive expiratory pressure treatment.
Conclusions and clinical implication: We report a SIPE incidence of 0.47%, predominantly affecting middle-aged women. Most cases were successfully managed on-site using PEP treatment. Our data help predict SIPE cases at large open-water events and contribute to safer SIPE management.

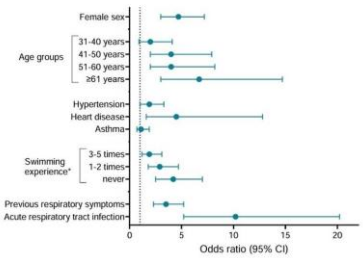

A
2017
2018
2019
2022
2023
2024
2025
Incidence of SIPE by age (%)
18-30 yrs
31-40 yrs
41-50 yrs
51-60 yrs
>61 yrs
B
Incidence of SIPE by sex (%)
Men
Women

Individual risk factors for Swimming-Induced Pulmonary Edema – data from Sweden's largest open water swimming event

Respiratory
Clinical General Practice

Linda Kristiansson[1, 2, 3]
Claudia Seiler[1, 4, 5], Annika Braman Eriksson[6], Josefin Sundh[7], Maria Hårdstedt[1, 4, 6]
[1] 1.School of Medical Sciences, Faculty of Medicine and Health, Örebro University, Örebro, Sweden
[2] 2. Sandviken North Primary Health Care Center, Sandviken, Sweden
[3] 3.Center for Research and Development, Uppsala University/Region Gävleborg, Gävle, Sweden
[4] 4. Center for Clinical Research Dalarna-Uppsala University, Falun, Sweden
[5] 5. Department of Anesthesiology and Intensive Care, Falun Hospital, Falun, Sweden
[6] 6. Vansbro Primary Health Care Center, Vansbro, Sweden
[7] 7.Department of Respiratory Medicine, Faculty of Medicine and Health, Örebro University, Örebro, Sweden

Introduction: Swimming-induced pulmonary edema (SIPE) is characterized by shortness of breath, cough and occasionally hemoptysis during swimming in cold open water. Despite growing attention in recent years, risk factors for SIPE remain incompletely understood.
Aim: The aim was to investigate individual factors with SIPE.
Methods: We conducted a case-control study based on Sweden's largest open water swimming event, *Vansbrosimningen*. Data were obtained through interviews with individuals diagnosed with SIPE (2017–2024) and through a web-based survey administered to controls without SIPE (2019).
Results: 258 cases were diagnosed with SIPE and 2117 controls were included. Female sex (OR 5.3), higher age (OR for ≥61 years 7.3), hypertension (OR 1.9), heart disease (OR 6.0), asthma (OR 1.7) and low frequency of open water swimming during the present season (OR for never: 3.6) were independently associated with SIPE in logistic regression. A second model found that previous respiratory symptoms during open water swimming (OR: 3.5) and acute respiratory tract infection (OR: 10.2) were also strongly associated with SIPE, however affected the significance for asthma.
Conclusions and clinical implication: Previously reported individual risk factors for SIPE and immersion pulmonary edema are confirmed — such as female sex, higher age, hypertension, heart disease, respiratory tract infection and prior SIPE episodes. Further, asthma and limited experience of open water swimming are associated with an increased risk of SIPE. A comprehensive understanding of SIPE risk factors can improve safety during open water swimming and contribute to the development of medical guidelines for SIPE.



Forest plot illustrating odds ratio for factors associated with SIPE in adjusted logistic regression from the second model. *Frequency of open water swimming during the present season. Previous respiratory symptoms was reported in open water. SIPE=swimming-induced pulmonary edema

Parental ambivalence about routine childhood vaccination – preliminary results from an interview study

Care for children and adolescents
Clinical General Practice
Staffan Svensson[1]
Ylva Paulsson[1], Maria Magnusson[2], Ann-Sofie Cavefors[3], Marie Hörnlund[4], Helena Johansson[5], Johanna Rubin[6], Asha Jama[6]
[1] Nötkärnan Bergsjön Medical Centre, Gothenburg, Sweden
[2] Retired researcher, Gothenburg, Sweden
[3] Department of Child Health Services, Gothenburg, Sweden
[4] Omtanken Kviberg Child Healthcare Centre, Gothenburg, Sweden
[5] Närhälsan Angered Child Healthcare Centre, Gothenburg, Sweden
[6] The Public Health Agency of Sweden, Stockholm, Sweden

Introduction: Hesitancy to vaccination has been declared one of the top ten threats to global health by the World Health Organization (WHO). The reasons for parents' reluctance to have their children vaccinated are only partly understood. Measles, mumps and rubella (MMR) coverage is falling in northeastern suburbs of Gothenburg (Table).
Aim: To elucidate views on childhood vaccination among parents at child healthcare centres (CHCs) in these suburbs.
Methods: Parents of children aged 2–6 years were recruited, based on child health services nurses' personal knowledge. Interviews were audio-taped and included questions concerning pros/cons of vaccination, knowledge of other parents' reasoning, and the credibility of different information sources. The study is part of a larger project implementing the WHO tailoring immunization programme approach. Work-up of data is ongoing, primarily by content analysis.
Results: Sixteen parents (9 female; 7 originating in WHO European and 6 in WHO Eastern Mediterranean Regions) contributed interviews ranging 13–34 minutes. All participants' children were vaccinated but some had delayed this until the child reached certain developmental milestones. Salient findings were a generally positive attitude to vaccines, mixed with a degree of ambivalence chiefly concerning the MMR vaccine's supposed link to autism. Some parents had more confidence in other parents' testimonies and their own fact-finding efforts, than in CHC staff.
Conclusions and clinical implication: Vaccine hesitancy may be understood in terms of a conflict between the credibility of different sources of information. Asking hesitant, or indeed all, parents about this may be a way to improve parental understanding, vaccine coverage and health equity.

	Year						
Child healthcare centre (CHC)	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
Närhälsan Lövgärdet CHC	96	94	92	90	89	88	91
CHC Gårdsten Vårdcentral	NA	97	88	97	89	89	87
CHC Capio Läkarhus Angered	95	95	88	89	89	86	89
Närhälsan Angered CHC	97	96	90	90	89	84	91
Närhälsan Hjällbo CHC	90	90	94	91	89	84	85
Närhälsan Gamlestadstorget CHC	97	97	96	95	95	91	90
Nya Vårdcentralen Kortedala Torg CHC	95	96	96	90	98	92	NA
Nötkärnan Kortedala Vårdcentral CHC	93	90	99	93	92	94	88
Nötkärnan Bergsjön Vårdcentral CHC	94	95	93	93	90	89	88
Median of 9 CHCs above	95	95	93	91	89	89	88
Median in Västra Götaland Region	98	98	98	98	98	98	98

Table. Coverage rates for the measles, mumps and rubella (MMR) vaccine among 2-year olds in child healthcare centres in northeastern suburbs of Gothenburg. The median rate fell from 95% in 2017 to 88% in 2023.

Collection of Choosing Wisely de-implementation proposals in Swedish General Practice through workshops

Choosing Wisely
Environmental Health and Sustainability
Josabeth Hultberg[1]
Jan Håkansson[1], Minna Johansson[1], Oskar Lindfors[1], Karin Mossberg[1], Hálfdán Pétursson[1], Jonas Sjögreen[1], **Staffan Svensson**[1], Andreas Thörneby[1], Sofia Zettermark[1]
[1] Swedish Association of General Practice Standing Committee on Sustainable Diagnostics and Treatment (SFAM-H)

Introduction: A significant portion of healthcare activities do not contribute to net health gains. General practitioners (GPs) are frequently exposed to such low-value care. The Choosing Wisely (CW) movement aims to identify low-value care and reduce it through campaigns targeting health professionals and the public.
Aim: To describe the collection of CW de-implementation proposals generated by Swedish GPs.
Methods: Local sections of the Swedish Association of General Practice arranged CW workshops for residents and GPs. The authors presented on low-value care, overdiagnosis, and overtreatment. Participants then worked in groups to suggest candidate activities for de-implementation, motivating their choices and describing underlying drivers, possible indicators, and evidence.
Results: Eighteen workshops were held across 13 of Sweden's 21 regions in 2023/2024 (Figure). In total, 115 groups (6–10 participants each) contributed 739 proposals for de-implementation. Of these, 409 (55%) included a motivation, 125 (17%) described underlying drivers, 89 (12%) suggested an indicator, and 38 (5%) referenced evidence. Proposals were categorized into the following themes: administrative burdens, specific clinical activities, general principles, and issues related to clinical guidelines and healthcare routines.
Conclusions and clinical implication: Swedish GPs generated a substantial number of de-implementation proposals, forming the foundation for later national CW recommendations in primary care. Broad participation and adequate framing of the workshop topics are crucial for the legitimacy and success of CW campaigns.

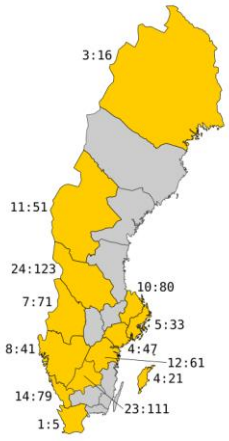


Figure. Swedish regions where workshops were organized (yellow). Numbers (G:S) refer to number of groups and contributed suggestions.

Co-Producing Quality Improvements with Foreign-Born Individuals with Heart Failure – Experiences from Primary Care

Quality and safety
Health services

Anne-Marie Suutari[1]
[1] Department for healthcare quality improvement and leadership, School of Health and Welfare, Jönköping University

Introduction: Foreign-born individuals with heart failure (HF) face challenges such as language barriers, cultural differences and limited social support, which may hinder self-care and health outcomes. Co-production is a promising approach to healthcare quality improvement (QI) and equity by involving patients, family members, and professionals as equal partners in service redesign.
Aim: To identify needs and resources among foreign-born individuals with HF and to combine these insights with family members' and professionals' perspectives to co-produce QI in Swedish primary care.
Methods: This case study applies Experience-Based Co-Design (EBCD) to involve individuals with HF born in the Middle East, their families, and healthcare professionals. EBCD (figure 1) gathers stakeholders' care experience through observations, interviews and feedback events. Patients' narratives are condensed into a "trigger film" highlighting key emotional touchpoints, which informs the stakeholders' feedback events. A joint workshop enables stakeholders to prioritize improvement opportunities, which are translated into co-produced interventions that will be implemented and evaluated.
Results: The study is expected to deliver a co-produced QI intervention aimed at improved healthcare and migrant health outcomes. The process will generate and disseminate empirically grounded insights into participatory strategies for engaging foreign-born individuals, their families, and professionals. Experiences and learnings will be shared and discussed during the conference, with emphasis on how QI with migrants as a seldom-heard group are co-designed.
Conclusions and clinical implication: EBCD shows promises for enhancing QI and equity for foreign-born individuals with HF. Findings may inform scalable interventions and support person-centered primary care, contributing to improved migrant health and reduced disparities.

Figure 1. Experience-Based Co-Design (EBCD)

Hospital triage process of general practice referrals: a remnant of the past?

Leadership and organizational development
Health services

Mette Elkjær[1, 2, 3]
Niels Kristian Kjær[4, 5], Helle Ibsen[4, 5], Christian Backer Mogensen[2, 3], Jens Søndergaard[4, 5], Jesper Lykkegaard[4, 5]
[1] Research Center for Integrated Healthcare, Region of Southern Denmark, Aabenraa, Denmark
[2] Department of Regional Health Research, University of Southern Denmark, Odense
[3] Research Unit of Emergency Medicine, University Hospital of Southern Denmark, Aabenraa, Denmark
[4] Department of Public Health, University of Southern Denmark, Odense, Denmark
[5] Research Unit of General Practice, University of Southern Denmark, Esbjerg-Odense, Denmark

Introduction: Collaboration between General Practitioners (GPs) and hospital services is vital for efficient, patient-centred care. In Denmark, GPs manage referrals, while hospital triage consultants assess appropriateness, returning referrals they do not find indicated. Rising rejection rates and communication gaps highlight the need to understand triage decision-making.
Aim: To explore the decision-making and coordination processes involved in rejected referrals from the perspective of hospital triage consultants.
Methods: A qualitative design was employed using telephone interviews. Data were analysed using Braun and Clarke's thematic analysis.
Results: Ten hospital triage consultants from nine specialties (1–18 years' experience) participated. Four themes emerged: 1) The referral process is influenced by increasing specialisation and regulatory mandates, 2) Communication within the referral process, 3) The referral as a requested clinical task, and 4) Selection of "the right patients" for specialised treatment. Referral pathways work well for clearly defined cases, such as suspected cancer, but are less effective for patients with complex conditions. Findings indicate that triage consultants act as gatekeepers between GPs and specialist departments, balancing clinical information with departmental capacity.
Conclusions and clinical implication: Structural and procedural constraints limit system flexibility. The consultants suggest efficiency could be improved by revising legal and administrative constraints and optimising consultants' workloads. Accessible and flexible referral criteria may enhance triage and prioritisation of patients with the greatest clinical needs and complex medical conditions. Collaboration between triage consultants, GPs, and patients can be strengthened through better direct contact or written correspondence. This may improve referral quality and overall patient-centred care.

Process evaluation of an RCT of cross-sectoral video conferences supporting type 2 diabetes care in general practice

Interprofessional collaboration and team-based care
Health services

Anne Sofie Baymler Lundberg[1, 2, 3]
Thim Prætorius[3], Anders Prior[1], Annelli Sandbæk[1, 2, 3], Julie Høgsgaard Andersen[3]
[1] Research Unit for General Practice, Aarhus, Denmark
[2] Departmen of Public Health. Aarhus University, Aarhus, Denmark
[3] Steno Diabetes Centre Aarhus, Aarhus University Hospital, Aarhus, Denmark

Introduction: Initiatives with collaboration between general practice and hospitals are needed to support tasks moved to general practice. This study reports a process evaluation of an RCT testing whether four video conferences over 12 months between general practice and endocrinologists improved the medical prescribed to patients with type 2 diabetes managed in general practice.
Aim: To explore how cross-sectoral video conferences were implemented and the GP's perceived benefits.
Methods: The process evaluation was guided by the MRC framework, focusing on implementation (dose, fidelity, feasibility, acceptability). Quantitative process data were collected from the endocrinologists' registrations. Qualitative data consisted of interviews with endocrinologists, GPs and nurses from the practices, and the trial secretary, which were analysed thematically using NVivo.
Results: The intervention was implemented with high fidelity and dose adherent to the planned format. It was feasible and acceptable in both general practice and hospital settings. The GPs and endocrinologists valued the continuity of meeting the same doctor throughout the trial. Some GPs found identifying suitable patient cases time-consuming. All GPs perceived the main benefit as enhanced knowledge of pharmacological treatment of type 2 diabetes. Opinions varied on whether the initiative should continue after the trial.
Conclusions and clinical implication: The process evaluation shows that the trial of cross-sectoral video conferences was implemented with high fidelity, dose, and acceptability. In addition, the conferences enhanced GPs' knowledge of pharmacological treatment of type 2 diabetes. Future implementation could explore flexible models according to frequency and subsequent update conferences.

Learning from patient safety incidents in primary care: a mixed-methods study from Stockholm

Cancer
Clinical General Practice
Olesja Fornara[1, 2]
Solvig Ekblad[1, 2], Rita Fernholm[1, 2], Elinor Nemlander[1, 2]
[1] Karolinska Institutet
[2] Region Stockholm

Introduction: Early identification of potential cancer symptoms in primary care is clinically challenging and missed or delayed cancer diagnoses account for a substantial proportion of diagnostic errors. Understanding the system and process failures behind these delays is essential for learning and improvement.
Aim: To examine system and process failures contributing to diagnostic delay in primary care through a structured review of patient safety incident reports in Stockholm.
Methods: We conducted a mixed-methods study in primary care in Region Stockholm. Patient safety incident reports related to diagnostic delay were identified. Descriptive statistics summarised incident characteristics. Free-text responses to two template questions, contributory factors and learning/improvement actions, were analysed in two strands using reflexive thematic analysis.
Results: Thirty-four primary care centres contributed 696 incident reports; 71% were assessed as avoidable. Diagnostic delay was identified in 38% of reports, with approximately one third cancer-related.

Free-text findings aligned with the two template questions (contributory factors and learning actions). The most prominent issues of contributory factors were clinician/practice-level factors: gaps in clinical knowledge, unclear or absent routines, human factors leading to missed follow-up or delayed re-assessment. Additional factors included patient-related disruptions, work pressures, administrative/IT failures, and poor coordination across interfaces.

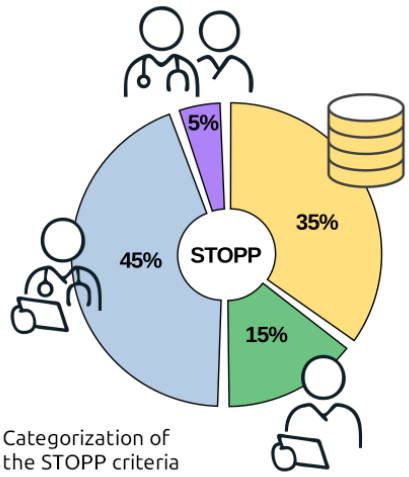
In organisational learning, suggested improvement actions focused on reviewing and standardising diagnostic routines and follow-up processes, competence development, strengthening patient-centred communication and safety-netting, improving working conditions, continuity of care, and enhancing collaboration across care boundaries.
Conclusions and clinical implication: Systematic learning from patient safety incidents can inform practical improvements in different areas of primary care, supporting earlier cancer detection and reduced diagnostic delays.

Applicability of the STOPP/START criteria by non-physicians and using registry data

Multimorbidity and complex care needs
Clinical General Practice

Staffan Svensson[1, 2]
Naldy Parodi López[2, 3], Susanna M Wallerstedt[2, 4], Jesper Poucette[5]
[1] Nötkärnan Bergsjön Medical Centre, Gothenburg, Sweden
[2] Department of Pharmacology, Sahlgrenska Academy, University of Gothenburg, Gothenburg, Sweden
[3] Department of Clinical Pharmacology, Sahlgrenska University Hospital, Gothenburg, Sweden
[4] Center for Health Technology Assessment, Sahlgrenska University Hospital, Region Västra Götaland, Gothenburg, Sweden
[5] Närhälsan Ågårdsskogen Medical Centre, Lidköping, Sweden

Introduction: The Screening Tool of Older Persons' Prescriptions (STOPP) and the Screening Tool to Alert to Right Treatment (START), including criteria for potentially inappropriate/appropriate drug treatment, were developed to support physicians in treating older patients. These tools are, however, commonly applied by non-physicians and using registry data.
Aim: To determine the clinical background and data required for application of the STOPP/START criteria.
Methods: Two experienced general practitioners first independently and then in consensus assessed each of the explicit STOPP/START criteria version 2 (n=111). They focused on what clinical background was required of the assessor and what patient data would be sufficient for meaningful application. Each criterion was categorized into one of four mutually exclusive groups: 1) medical registry data suffice; 2) a non-physician with experience of reading medical records can apply the criterion; 3) a physician familiar with diagnosis and pharmacotherapy of similar patients is required; 4) a physician with personal knowledge of the patient is required.
Results: Of the STOPP criteria, 35% were considered possible to assess using registry data only, whereas 15% could be applied by a non-physician; 45% by a physician with experience of similar patients but lacking personal knowledge of patient, and 5% only by a physician with personal knowledge (Figure). Corresponding percentages for the START criteria were 29%, 16%, 47%, and 8%.
Conclusions and clinical implication: About half of the STOPP/START criteria can be applied by non-physicians or using registry data only, whereas the remaining criteria require a physician with adequate experience, with or without personal knowledge of the assessed patient.



Categorization of
the STOPP criteria

Nottingham Health Profile Item 'Things Are Getting Me Down' as an Indicator of Depression in Older Adults

Mental health
Clinical General Practice
Jari Jokelainen[1]
Markku Timonen[2, 3, 4]
[1] Northern Finland Birth Cohorts, Infrastructure for population studies, University of Oulu
[2] Research Unit of Population Health, University of Oulu, Oulu, Finland
[3] Wellbeing Services County of North Ostrobothnia, Oulu, Finland
[4] Unit of Primary Care, Oulu University Hospital, Oulu, Finland

Introduction: Depression is a major cause of disability worldwide and common among older adults, impairing functioning and overall quality of life (QoL). Despite validated screening tools, their systematic use in routine primary care remains limited. QoL instruments such as the Nottingham Health Profile (NHP) are widely applied for multidimensional health assessment, yet their potential for detecting depressive symptoms is underexplored.
Aim: To evaluate whether specific NHP domains reliably identify major depression in older adults and facilitate opportunistic screening in primary care.

Methods: This cross-sectional study analyzed 474 participants (mean age ≈72 years) from the population-based Oulu1935 Cohort Study. Major depression was confirmed using the Mini International Neuropsychiatric Interview (DSM-IV criteria). QoL was assessed with the Finnish NHP, covering six quality-of-life dimensions. Statistical analyses included descriptive comparisons and Receiver Operating Characteristic (ROC) curve analysis for diagnostic accuracy.
Results: Twenty-five participants (5.3%) had current depression of whom 20 had completed the NHP. The item 'Things Are Getting Me Down' from the emotional reactions domain showed strong association with depression. Sensitivity was 90.0% and specificity 84.1% (Figure 1), with Area Under the Curve (AUC) ≈0.87 (Figure presented in the congress). Positive predictive value was 20.5%, and negative predictive value 99.5%. Gender, marital status, Mini-Mental State Examination (MMSE) score, and chronic disease burden showed no significant differences.
Conclusions and clinical implication: One NHP item 'Things Are Getting Me Down' demonstrated excellent accuracy for detecting depression in older adults. Incorporating such QoL-based indicators into routine geriatric and primary care assessments may enhance early identification, improve treatment pathways, and reduce underdiagnosis of late-life depression.

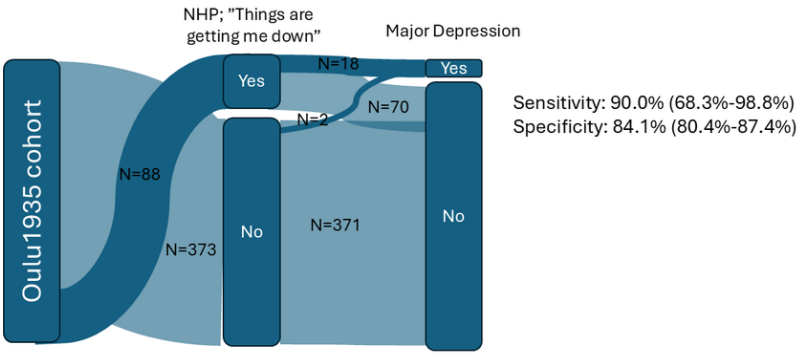


Figure 1. Diagnostic Accuracy of the Nottingham Health Profile (NHP) Item 'Things Are Getting Me Down' for Major Depression in the Oulu 1935 Cohort.

Navigating referrals to prevention and rehabilitation for chronic conditions: experiences of general practitioners

Preventive programs
Prevention

Ida Hestbjerg[1]
Gritt Overbeck[2, 3], Linnea Waade Biermann[2], Emilie Helene Mørup Hvalstad[2], Amanda Paust[1, 4], Anna Mygind[1, 4]
[1] Research Unit for General Practice, Aarhus, Denmark
[2] Research Unit for General Practice, Copenhagen, Denmark
[3] Department of Public Health, Copenhagen University, Copenhagen, Denmark
[4] Department of Public Health, Aarhus University, Aarhus, Denmark

Introduction: Preventive and rehabilitative services are central to the management of chronic conditions and are increasingly delivered outside general practice, often within municipal settings. General practitioners (GPs) play a key role in identifying eligible patients and initiating referrals; however, referral processes are complex and may be influenced by organisational, professional, and patient-related factors. Little is known about how GPs experience and navigate these referral decisions in everyday practice.
Aim: This study aims to explore GPs' experiences with referring patients with chronic conditions to preventive and rehabilitative services.
Methods: We conducted semi-structured interviews with 24 GPs in Denmark, using purposive sampling to ensure variation in clinic and GP characteristics. Data was analysed using thematic analysis.
Results: GPs reported uncertainty about whom and how many patients to refer to preventive and rehabilitative services, influenced by patient resources, motivation, and timing. Referral practices were hindered by limited knowledge of municipal services and unclear division of responsibility across sectors. Substantial variation between practices was observed, reflecting differences in patient populations, GPs' attitudes toward the relevance and prioritisation of referral, and the availability of services across municipalities.
Conclusions and clinical implication: GPs experience considerable uncertainty and variability in referring patients with chronic conditions to preventive and rehabilitative services. Ensuring clarity of roles across sectors, strengthening GPs' knowledge of available services, and improving communication practices between GPs and municipalities may support more consistent and equitable referral practices. These findings highlight opportunities for quality development initiatives to enhance cross-sector collaboration and support GPs in referral decision-making.

"So I call myself healthy": A Qualitative Study on Health Perceptions in Older Adults with Multimorbidity

Multimorbidity and complex care needs
Clinical General Practice
Klas Ytterbrink Nordenskiöld[1, 2]
Christina Sandlund[1, 2], Caroline Kappelin[1, 2], Karin Norman[3], Caroline Wachtler[1, 2]
[1] Karolinska Institute, Department of Neurobiology, Care Sciences and Society, Division of Family Medicine and Primary Care
[2] Stockholm Region, Academic Primary Care Center
[3] Stockholm University, Department of Social Anthropology

Introduction: An ageing population and its association with a rising prevalence of co-existing multiple chronic conditions poses increasing challenges for healthcare systems worldwide.
Aim: In line with the World Health Organization ambition for societies to develop integrated care models and person-centered care, this study aimed to investigate what health means for individuals managing multiple chronic conditions and how these patients navigate a healthcare system primarily designed for single-disease management.
Methods: A six-phase reflexive thematic analysis was conducted on 16 individual interviews with patients aged 67 to 87 years old in a Swedish primary care setting.
Results: Two themes were developed. Firstly, *Resiliently Positioning as Non-Sick* that centered on how participants employed internal strategies to position their identity on the non-sick side of a health spectrum, and secondly, *Placing Yourself in the Hands of Healthcare,* which focused on the mixed feelings towards interacting with healthcare.
Conclusions and clinical implication: Older individuals with multiple conditions tend to identify as non-sick and strive for autonomy. Engaging with healthcare can pose a threat to both their autonomy and their non-sick identity. They desire healthcare that works holistically, focuses on health and function, and avoids stigmatizing terms like Multimorbidity. We recommend that policymakers and healthcare providers integrate this understanding and support for autonomy and holistic approaches into their efforts to deliver person-centered care.

Osteomalacia in Pregnancy and Severe Delivery Outcomes: Implications for Primary Care and Global Sustainability

Women's health
Clinical General Practice
Paul Kalliokoski[1]
Thomas Torstensson[1], Per Kristiansson[1]
[1] Uppsala University, Faculty of Medicine, Department of Public Health and Caring Sciences, General Practice, Sweden

Introduction: Osteomalacia, driven by chronic vitamin D deficiency and calcium insufficiency, may compromise maternal muscle function and pelvic biomechanics during labor. Severe delivery complications increase healthcare costs and morbidity. Early detection in primary- and maternal care offers a sustainable prevention strategy.
Aim: To examine whether maternal osteomalacia is associated with severe delivery outcomes and to highlight the feasibility of a non-invasive screening protocol for primary care.
Methods: A prospective cohort study included 123 women (71 Swedish, 52 Somali) during pregnancy and breastfeeding. Baseline data comprised blood samples, questionnaires, and clinical examination. Two years later, delivery outcomes were retrieved from diagnostic codes. **Biochemical osteomalacia was defined as serum 25-hydroxyvitamin D <30 nmol/L combined with elevated parathyroid hormone and alkaline phosphatase, confirmed clinically by muscle weakness, pain, and fatigue.** Diagnosis relied on a **non-invasive, non-radiation protocol**, avoiding bone marrow biopsy with tetracycline labeling and radiology. Associations were analyzed using multinomial logistic regression, adjusted for a minimal confounder set guided by a DAG approach.
Results: Twenty women (19 Somali, 1 Swedish) were diagnosed with osteomalacia. Adjusted odds ratios showed a five-fold increased risk for instrumental-assisted delivery (aOR 4.92; 95% CI 1.30–18.65) and a markedly higher risk for vacuum extraction (aOR 16.16; 95% CI 1.20–217.55).
Conclusions and clinical implication: Maternal osteomalacia is strongly associated with severe delivery complications but is **treatable**. A **non-invasive screening protocol** enables early identification in primary care—even in low-resource settings. This approach empowers GPs to prevent complications and **possibly improve maternal–child outcomes**, while promoting **sustainable healthcare** globally.

Adjusted and Crude Odds Ratios for Delivery Outcomes

Delivery outcome	Crude OR (95% CI)	Adjusted OR (95% CI)
Partus normalis	0.30 (0.11–0.80)	0.34 (0.10–1.10)
Elective Caesarean section	0.87 (0.18–4.26)	0.44 (0.04–4.53)
Vacuum extraction	5.81 (1.32–25.63)	16.16 (1.20–217.55)
Emergency Caesarean section	2.61 (0.79–8.57)	2.27 (0.51–10.03)
Vacuum extraction or emergency CS	4.47 (1.58–12.64)	4.92 (1.30–18.65)

Adjusted for: age, alcohol, height, country of birth, physical activity, parity, vitamin D/calcium supplementation

National implementation of named GP model in Finland from 2022 to 2026

Leadership and organizational development
Health services
Juha Auvinen[1, 2]
Salla Savela[1], Elina Räinä[1], Markku Timonen[1, 2]
[1] Research Unit of Population Health, University of Oulu, Oulu, Finland
[2] Wellbeing Services County of North Ostrobothnia, Oulu, Finland

Introduction: Continuity in the doctor-patient relationship has declined significantly in Finland since the early 2000s, following the abandonment of the named GP model. Meanwhile, evidence supporting continuity has strengthened, and its absence in primary care has become a major concern. In response to a 2022 ministry report and a parliamentary statement, wellbeing services counties have begun reintroducing the model gradually.
Aim: This study aims to determine the proportion of the population with a named GP and assess physician resources at both national and health center levels.
Methods: Data include all health centers across Finland's wellbeing services counties and the entire population. A survey was sent to chief physicians of all health centers, supplemented by follow-up interviews with county-level chief physicians. Final results will be available in early 2026.
Results: Preliminary findings show that, of 22 wellbeing services counties, one has assigned a named GP to its entire population, while four counties have allocated named GPs to 50–85% of residents by the end of 2025. In the remaining counties, coverage ranges from 0% to 50%. Final results will be confirmed in early 2026.
Conclusions and clinical implication: This is the first national assessment of the coverage of Finland's named GP model alongside actual physician resources. Implementation has been gradual, and in several counties, nearly the entire population is already covered under the model.

Social Capital and Depression: A 15-Year Longitudinal Analysis

Social and structural determinants of health
Health Equity

Johanna Kemppainen[1]
Jouko Miettunen[1, 2], Paula Pesonen[3], **Markku Timonen**[1, 4, 5]
[1] Research Unit of Population Health, Faculty of Medicine, University of Oulu, Oulu, Finland
[2] Medical Research Center Oulu, Oulu University Hospital and University of Oulu, Oulu, Finland
[3] Northern Finland Birth Cohorts, Infrastructure for Population Studies, University of Oulu, Finland
[4] Unit of General Practice, Oulu University Hospital, Oulu, Finland
[5] Wellbeing Services County of North Ostrobothnia, Oulu, Finland

Introduction: Social capital—resources within social networks—has been associated with mental health, but its causal role is unclear. The link with depressive symptoms is complex and possibly bidirectional, but limited longitudinal evidence has left the direction of causality uncertain.
Aim: To examine whether social capital at age 31 predicts depressive symptoms at age 46, and whether depressive symptoms at age 31 predict social capital at age 46.
Methods: Data were drawn from the Northern Finland Birth Cohort 1966 (N = 5106; baseline N = 8351, follow-up N = 6522). Depressive symptoms were assessed using 15-item depression subscale of the Hopkins Symptom Checklist-25 (cut-off ≥ 1.75), and social capital dimensions via participants' self-reported perceived emotional and instrumental support from spouse, relatives, friends, colleagues, "others" on a 5-point Likert scale. Analyses applied ordinal and logistic regression models adjusted for sociodemographic covariates and baseline depression.
Results: Lower levels of emotional and instrumental support—particularly from spouses, colleagues, and close friends—at age 31 were significantly associated with higher depressive symptoms at age 46 ($p < .001$, adjusted models). In contrast, depressive symptoms at age 31 were only weakly associated with reduced social capital at age 46, providing limited evidence for a bidirectional relationship. Detailed statistics, including odds ratios and confidence intervals, will be presented at the congress.

Conclusions and clinical implication: Low social support, especially instrumental support, predicts later depressive symptoms more strongly than the reverse. These findings underscore the importance of social capital as a determinant of mental health and highlight its potential role in preventive strategies.

Distribution of General Practitioners' Working Time and Resource Allocation in Primary Health Care in North Ostrobothnia

Leadership and organizational development
Health services

Marjo Pasanen[1, 2]
Waltteri Tuompo[1, 2], Anna Jokinen[2], Markku Timonen[1, 2]
[1] The Wellbeing Services County of North Ostrobothnia
[2] Research Unit of Population Health, Faculty of Medicine, University of Oulu, Oulu, Finland

Introduction: Primary health care in Finland faces significant challenges related to resource allocation. While specialized care costs have nearly doubled since the early 2000s, funding for primary care has remained largely unchanged. This imbalance affects the availability of services and waiting times for non-urgent appointments, contributing to emergency department overcrowding. Addressing these issues requires detailed knowledge of how general practitioners' working time is distributed and how workforce resources are allocated.
Aim: The study aims to examine the distribution of general practitioners' working time within the North Ostrobothnia wellbeing services county, with a particular focus on non-urgent consultations and deputy chief physicians' perspectives on resource allocation.
Methods: Data will be collected through semi-structured interviews and quantitative surveys in local health centers. Approximately 6–12 deputy chief physicians will be interviewed until thematic saturation is reached. Qualitative data will be analyzed using thematic analysis, while quantitative data will be processed using descriptive statistics (frequencies, percentages, and means).
Results: The findings will provide up-to-date information on physicians' workload and resource distribution in primary care. Results will be published as part of a licentiate thesis and subsequently as peer-reviewed articles in international journals.
Conclusions and clinical implication: This study will generate evidence to support decision-making and development initiatives aimed at improving access to care, cost-effectiveness, and workload management in Finnish primary health care.

General Practitioners' View on Sustainability in General Practice: An Interview Study from Denmark

Sustainable healthcare practices
Environmental Health and Sustainability

Sigrid Moesgaard Larsen[1]
Torsten Risør[2, 3, 4], Kristian Damgaard Lyng[5, 6], Malene Plejdrup Hansen[5, 7, 8], Jens Søndergaard[8, 9], Nanna Holt Jessen*[1], Ásthildur Árnardóttir*[2]
[1] Research Unit for General Practice, Aarhus, Denmark
[2] Research Unit for General Practice, Region Zealand, Denmark
[3] Section for General Practice, University of Copenhagen, Denmark
[4] Dept. for Community Medicine, UiT Arctic University of Norway
[5] Center for General Practice, Aalborg, Denmark
[6] Department of Health Science and Technology, Aalborg University, Aalborg, Denmark
[7] Department of Public Health, University of Southern Denmark, Odense, Denmark
[8] Research Unit of General Practice, Odense, Denmark
[9] Department of Public Health, University of Southern Denmark, Denmark

Introduction: General practitioners (GPs) occupy a central position in healthcare delivery and have substantial potential to contribute to sustainability through reducing environmental impact and supporting population health. Sustainability in healthcare is a broad concept encompassing environmental, governance, and social dimensions. While national and regional strategies to promote sustainability have been implemented in Danish hospitals, comparable initiatives in primary care are sparse. Consequently, limited knowledge exists regarding GPs' perspectives on sustainability.
Aim: The aim of the study was to investigate Danish GPs' view on sustainability in general practice and to identify barriers and drivers for a sustainable transition in their practices.
Methods: The study was a qualitative, explorative interview study. The semi-structured interviews were conducted in November and December 2024. Data were analysed using thematic analysis.
Results: From eleven interviews with Danish GPs, two overarching themes emerged from the analysis: GPs' understanding of sustainability in general practice and their views on the role of general practice in advancing sustainable healthcare. Although sustainability was widely regarded as an important issue, participants expressed difficulty in translating the concept into concrete, actionable measures applicable to routine clinical work.
Conclusions and clinical implication: This exploratory study gave a starting point for understanding how GPs view sustainability in general pratice. GPs appeared receptive to the idea of a sustainable transition; however, their understandings of what sustainability in general practice entails varied considerably. Future research would benefit from a more precise conceptualization of sustainability in general practice or from a more in-depth exploration of specific components within the environmental, social, and governance framework.

Additional information about the order of the authors:

*Jessen and Árnadóttir contributed equally as senior authors.

The Health and Life in Balance intervention: a pragmatic mixed methods non-randomised pilot study

Multimorbidity and complex care needs
Clinical General Practice

Caroline Kappelin[1]
Klas Ytterbrink Nordenskiöld[1], Elisabeth Bos Sparén[2], Annica Lagerin[2], Caroline Wachtler[1]
[1] Division of Family Medicine and Primary Care, Department of Neurobiology, Care Sciences and Society (NVS), Karolinska Institute, Huddinge, Sweden.
[2] Department of Health Care Sciences, Marie Cederschiöld University, Stigbergsgatan 30, Stockholm, 116 28, Sweden

Introduction: .
Aim: The aim of this study was to assess acceptance, feasibility and further need of development of the intervention Health and Life in Balance (HLB) for improving patient capacity for older people with multimorbidity.
Methods: A non-randomised convergent mixed-methods pilot study was conducted in two primary care units in Region Stockholm: one intervention unit (IU) and one control unit (CU). Eligible patients were ≥65 years, had ≥2 chronic conditions, and increased care needs.
The intervention involved : Care plan developed with a district nurse (DN), DN follow-ups for 6 months, Improved DN–GP communication
The control group received usual care.
Data collection and analysis:Quantitative: Illness Intrusiveness Rating Scale (IIRS) and secondary outcomes from patient-reported measures and medical records; analysed statistically. Qualitative: Interviews and records; analysed thematically. Integration: Joint display
Results: Between February and June 2022, 53 participants (mean age 79 years, 18 diagnoses, 10 medications; 56.6% female) were recruited. No significant differences were found in primary (IIRS) or secondary quantitative outcomes. Qualitative analysis revealed two themes: vulnerable patients benefit most, and relational continuity and holism are valued but hindered by time constraints. Overall, holistic nurse follow-ups were feasible and acceptable, but the HLB model needs refinement to better target high-need patients and strengthen person-centred care through improved alignment with patient priorities and teamwork.
Conclusions and clinical implication: This mixed-methods pilot study suggests that HLB is partially acceptable and feasible. However, the intervention requires further development to better target individuals with the greatest needs, increase prioritization, assess practical patient-centredness, and strengthen teamwork to enhance person-centred care.

”She is probably on the meds” – a qualitative study on experiences of weight loss medication in a Danish rural setting

Obesity and type 2-diabetes
Clinical General Practice
Asbjørn Guldhammer[1]
Katrine Tranberg Jensen[1], Sofie Amalie Tomova-Olsen[1], Thomas Bo Drivsholm[1]
[1] Centre for General Practice, Department of Public Health, University of Copenhagen, Denmark

Introduction: Obesity is described as a global health crisis, affecting over one billion people worldwide. The pharmacological treatment of obesity, such as Semaglutide, has gained increasing attention due to its efficacy in weight loss when combined with lifestyle interventions. While clinical studies have focused on the medication’s effectiveness, little is known about the personal experiences of patients, especially in rural settings.
Aim: To explore patient experiences with treatment of weight loss medication (WLM) in a rural Danish context.
Methods: Nine participants were interviewed between February and March 2024. The sample included six women and three men, aged 33-65, who had been undergoing treatment with WLM for at least two months. Data was analyzed using systematic text condensation.
Results: The study identified four primary themes: (1) WLM as “cheating” – experiences of negative community perceptions (2) The impact of WLM on everyday life, (3) WLM as a temporary treatment, and (4) Weighing the pros and cons of using new medication.
Conclusions and clinical implication: The findings suggest that while WLM provides clear benefits in terms of weight loss and improved energy, its use is embedded in a complex social context. Negative attitudes towards weight loss medication, perceived as an “easy way out,” can significantly affect the patient experience and mental well-being. The concept of being a “guinea pig” for science emerged as participants weighed the potential risks of new medication against the benefits. These experiences are important to general practitioners prescribing and providing WLM to guide patients on potential social side effects of initiating treatment with WLM.

Implementing GPs in Danish municipalities as a part of delivering an intensive weight loss program

Interprofessional collaboration and team-based care
Health services

Katrine Tranberg Jensen[1]
[1] Centre for General Practice, Department of Public Health, University of Copenhagen, Denmark

Introduction: The Lighthouse Consortium on Obesity Management (LightCOM) trials were developed to test an intensive weight loss (IWL) program for people with obesity. The IWL program offers an individualized combination of total dietary replacement, behavioral support, physical activity and (potentially) treatment with weight loss medication (WLM). The IWL program is situated in three Danish municipalities and delivered primarily by dieticians, and by GPs prescribing and planning titration of medications.
Aim: Alongside the trials testing the effectiveness of the IWL program, our research group will perform a process evaluation investigating challenges and facilitators of implementing the program.
Methods: Qualitative interviews were conducted with managers, GPs, and dieticians from the three municipalities. Interviews lasted around 60 minutes and were based on a semi-structured topic guide. The preliminary analysis was performed using thematic analysis and implementation theory.
Results: We identified three themes related to the implementation of the IWL program in the municipalities from the mangers, dieticians' and GPs perspectives; 1) That collaboration and information flow between dieticians and GPs were sparse and a project nurse was needed as a faciltator 2) That GPs and dieticians experience the need of a psychologist in the program, and 3) That municipal values and cultures occasionally clash with the treatment regime GPs represent.
Conclusions and clinical implication: Implementing GPs as an integrated part of the IWL program in the municipal setting had its challenges. We hope to engage the audience in the discussion of our preliminary findings with a specific focus on managing treatment in primary care settings and collaboration between GP and municipalities.

Digital poster

Improving physical activity over time is associated with reduced Fatty Liver Index at 10 years

Obesity and type 2-diabetes
Clinical General Practice

Daniel Dahlgren[1]
Anna Cederborg[2], Margareta Hellgren[1], Ulf Lindblad[1], Ying Li[1], Bledar Daka[1], Kristin Ottarsdottir[1]
[1] School of Public Health and Community Medicine, Institute of Medicine, Sahlgrenska academy, University of Gothenburg, Gothenburg, Sweden.
[2] Institute of Medicine, Department of Molecular and Clinical Medicine, Sahlgrenska Academy, University of Gothenburg, Sahlgrenska University Hospital, Gothenburg, Sweden

Introduction: Fatty Liver Index (FLI) identifies individuals with Metabolic-dysfunction Associated Steatotic Liver Disease (MASLD). Physical activity is an effective treatment for MASLD, however, the long-term effect is scarcely studied.
Aim: The aim of this study was to investigate the association between leisure-time physical activity (LTPA) and FLI, cross-sectional and after 10 years.
Methods: We used data from the Swedish Vara-Skövde Cohort, a random population examined in 2002-2005 (visit 1) with 1327 participants followed up in 2012-2014 (visit 2). Self-reported LTPA was categorized into high and low level. FLI was calculated with existing data from both visits. Regression models analysed cross-sectional and longitudinal associations and we analysed how a change in LTPA was associated with FLI.
Results: From visit 1, 2488 individuals (49.8% women) were included in analyses and from visit 2, 1007 (50.2% women). Mean age was 47 years with 9.7 years follow-up time. LTPA at baseline didn't predict FLI at 10-year follow-up (B=-0.65, 95% CI:-2.77,1.48, p=0.550) or incident cases with FLI ≥60 (OR 0.70; 95% CI:0.42, 1.18). A change in LTPA between the two visits was inversely associated with FLI compared to remaining the same level of LTPA (B=-4.09, 95% CI: -7.14; -1.04, p= <0.05; B=3.77, 95% CI =0.31;7.23, p= <0.05).
Conclusions and clinical implication: High baseline LTPA was linked to a lower FLI cross-sectional, but not after 10 years. Changes in LTPA were associated with corresponding inverse changes in FLI. These findings suggest that the benefit of physical activity for MASLD depends on maintaining or improving activity over time, rather than on baseline level alone.

The Wellbeing of Future General Practitioner in Denmark: A Cross-Sectional Survey

Leadership and organizational development
Health services
Aho Bazargan[1]
[1] Forum For Yngre Almen Medicinere (FYAM), Denmark

Introduction: Burnout has risen significantly among general practitioners (GPs) in Denmark. Concerns regarding the wellbeing and long-term health of GPs are growing, especially as workload increases while the number of practicing GPs has failed to grow accordingly.

Forum for Yngre Almenmedicinere (FYAM), a committee under the Danish College of General Practitioners (DSAM) representing around 1,600 young doctors, conducted a survey in 2025 to examine how GP trainees perceive their work life, workload, and career intentions.

Aim: This study aims to provide insight into the wellbeing of the next generation of GPs.
Methods: A cross-sectional survey was developed and distributed via newsletters and social media. In total 666 participants participated, of whom 402 were FYAM members. Respondents were 78% women and 22% men, with a mean age of 35.3 years. Descriptive analyses summarized participant characteristics and response patterns.
Results: Overall, 75% reported “good” or “very good” wellbeing, 20% reported “moderate,” and 5% “poor” or “very poor” wellbeing in both their work and private life. Satisfaction was lowest during hospital rotations, with 10% reporting “poor” or “very poor” wellbeing. Loneliness was a significant common concern. Additionally, 68% reported having been worried about their wellbeing in the past 12 months. Factors identified to improve wellbeing included supportive workplace relationships, flexible hours, autonomy in planning, continuity of patient care, high clinical expertise, and supervision.
Conclusions and clinical implication: With increasing workloads and a growing elderly population, GP wellbeing is critical. This study highlights key findings and identifies factors that could enhance wellbeing among current and future GPs.

Strengthening health equity in general practice through locally driven solutions.

Social and structural determinants of health
Health Equity

Line Due Christensen[1]
Birgitte Haahr[1], Anne Sophie Steen Boisen[2], Rikke Pilegaard Hansen[3]
[1] Corporate Quality, Central Denmark Region, Denmark
[2] DEFACTUM Central Denmark Region, Aarhus, Denmark.
[3] Quality Unit for General Practice, Central Denmark Region, Denmark

Introduction: Health inequality remains a major challenge in the Danish healthcare system. Patients with lower socioeconomic position develop multimorbidity earlier, have poorer prognoses, and higher mortality compared to patients with a more favourable socioeconomic position. Social and medical challenges often reinforce each other, complicating navigation of the healthcare system. General practice plays a central role to address these inequalities. Locally tailored, flexible approaches are needed rather than universal, one-size-fits-all solutions.
Aim: This abstract presents the protocol for the initiative *Lige Praksis i Midt* (Danish name), aimed at strengthening equity in general practice by enabling practices to develop and test differentiated approaches for vulnerable patient groups.
Methods: Beginning in early 2026, twelve general practices in the Central Denmark Region will be recruited to participate in a structured programme including a kick-off meeting, inspiration activities, and a practice-based, interdisciplinary development education. Practices will design and implement locally selected organisational changes. Evaluation through interviews and a short survey will synthesise implementation experiences and identify transferable elements.
Results: Expected outcomes include more targeted support for vulnerable patients through tailored communication, proactive outreach, and organisational adjustments. Practices are also expected to experience strengthened interprofessional collaboration around vulnerable patients, improved organisational health literacy among the entire practice team, and enhanced feasibility in addressing inequalities as part of everyday work.
Conclusions and clinical implication: The study will generate practice-based knowledge on how locally driven, interdisciplinary development processes can advance equity in general practice. Resulting learning experiences and implementation insights are expected to inspire future health equity initiatives in other general practices.

Support Needs of Mothers Undergoing Chemotherapy for Breast Cancer While Caring for Preschoolers – An Interview Study

Access to care and service delivery
Health Equity

Elaine Dahlberg[1, 2, 3, 4]
Susanne Andersson[2, 3], Jenny Nyqvist-Streng[5, 6], Sofia Dalemo[2, 3, 4]
[1] Närhälsan Ågårdsskogen Healthcare Centre, Lidköping, Sweden
[2] R&D Centre Skaraborg, Sweden
[3] The Skaraborg Institute, Skövde, Sweden
[4] Public Health and Community Medicine, Institute of Medicine, Sahlgrenska Academy, University of Gothenburg, Gothenburg, Sweden
[5] Department of Surgery, Skaraborg Hospital, Skövde, Sweden
[6] Department of Surgery, Institute of Clinical Sciences, Sahlgrenska Academy, University of Gothenburg, Gothenburg, Sweden

Introduction: Parental cancer leads to an increased psychosocial burden within affected families. This burden can be alleviated through clear and structured family support. Knowledge about young children living with a mother undergoing chemotherapy for breast cancer is limited, although they are likely affected in diverse ways. There is a lack of understanding of families' support needs and how to design such support.
Aim: The study aims to explore the experiences and support needs of these mothers. It further seeks to deepen the understanding of the family's situation and contribute to improved collaboration between specialist care, primary care, and municipal services to provide coordinated support to young children as next of kin to a seriously ill parent.
Methods: Individual interviews were conducted using a thematic interview guide. Qualitative content analysis will be used to analyse the data. Inclusion criteria were mothers who have undergone chemotherapy treatment for breast cancer while living with preschool-aged children up to 6 years old. Participant recruitment was conducted through breast cancer associations, independent healthcare professionals, and snowball sampling.
Results: Interviews have been conducted, and we plan to conduct additional interviews this winter.
Conclusions and clinical implication: No conclusions have been drawn yet. We intend to have the analysis ready in May 2026 for the congress. The study is expected to improve the understanding of families' support needs during parental illness, enabling better interventions for children when mothers' faces cancer, ultimately promoting the well-being of preschool-aged children.

The Clinical Frailty Scale: Clinical utility, values and burden-benefit trade-offs in general practice

Multimorbidity and complex care needs
Clinical General Practice
Ruth Romoser[1]
Rebecca Rothbøll Jacov[1], Anna Mygind[1, 2], Ina Grønkjær Laugesen[1, 2]
[1] Aarhus University, Department of Public Health, Denmark
[2] Research Unit for General Practice, Aarhus, Denmark

Introduction: As people age, healthcare needs become increasingly complex. Frailty measures can support more individualised care. The Clinical Frailty Scale (CFS) offers a practical way to identify and describe frailty. It is recommended in Danish general practice, but the foundation for its implementation is sparsely examined.
Aim: To explore acceptability of using the CFS to assess frailty among healthcare professionals in general practice, focusing on early adopters.
Methods: Semi-structured interviews were conducted with nine healthcare professionals (GPs, GP trainees and practice staff) in the Central Denmark Region. Data were analysed deductively, guided by the Theoretical Framework of Acceptability.
Results: Three main themes emerged: (1) Clinical utility: The CFS was perceived as simple to use and compatible with existing workflows. Clinicians experienced that it could facilitate communication within and across care teams, enable earlier recognition of functional decline, and support person-centred decisions about treatment options. (2) Values: Clinicians reported that the CFS aligned with their commitment to holistic care, while recognising that a single score cannot fully capture a complex condition, emphasising the continued need for clinical judgement. (3) Burden-benefit trade-offs: Once implemented in routine practice, the time burden was considered minimal and justified by expected benefits, though its overall value depends on consistent application across healthcare sectors.
Conclusions and clinical implication: CFS was acceptable to early adopters, supporting person-centred care and cross-sectoral collaboration while adding minimal extra workload. Wider implementation in general practice appears feasible and clinically meaningful, but would be further strengthened by uptake in other healthcare sectors.

Journey of Person-centered Care transformation in Primary Care

Patient centered care
Clinical General Practice

Wee Hian Tan[1]
Ainsley Teow[1], Tong Wei Yew[2], Victor Loh[1, 3]
[1] National University Polyclinics, Singapore
[2] Division of Endocrinology, Department of Medicine, National University Hospital
[3] Department of Family Medicine, National University Health System

Introduction: Personalised Care and Support Planning (PCSP) was introduced to patients with diabetes in selected teamlets within National University Polyclinics (NUP) in Singapore since 2019.
Aim: It is designed to encourage person-centred care and shared decision making by transforming traditional clinic consultations into meaningful and collaborative conversations to achieve better patient experience and health outcomes.
Methods: The PCSP process involves training healthcare providers via a structured two-day workshop to deliver a person-centred care model in primary care. Patients are allocated a dedicated, longer than usual, 20-minute timeslot annually for their medical appointment to enable deeper conversations for discussion of issues that matter most to them. An easy-to-understand letter outlining their most recent 4 blood tests results will also be provided prior to their visit to help them prepare for the session.
Results: A study of patients who have undergone PCSP showed encouraging results in mitigating the worsening of diabetes and promoting shared-decision making. Patients with higher baseline HbA1c≥8.0% had improved control while patients with baseline <8.0% had attenuated glycaemic worsening.

As of October 2025, 1,327 patients had completed three consecutive CollaboRATE (measure of shared-decision-making) surveys. A mean improvement in score of 8.04 to 8.22 (on a scale of 0 to 9) was noted.
Conclusions and clinical implication: Considering these promising findings, NUP intends to integrate PCSP into routine diabetes management. However, in view of resource considerations, PCSP needs to be offered only to patients deemed to benefit the most from it. Therefore, ongoing process optimisation and a more targeted approach are crucial for sustaining this person-centred model.

Grief trajectories and long-term health effects in bereaved relatives: a prospective study with ten-year follow-up

End-of-life care
Clinical General Practice
Mette Kjærgaard Nielsen[1]
Kaj Sparle Christensen[1], Mette Asbjoern Neergaard[2], Pernille Envold Bidstrup[3], Mai-Britt Guldin[1], Ina Laugesen[1]
[1] Research Unit for General Practice, Aarhus, Denmark
[2] Section for Palliative Care, Department of Oncology, Aarhus University Hospital, Denmark
[3] Danish Cancer Institute, Strandboulevarden 49, 2100 Copenhagen Ø, Denmark

Introduction: Bereavement may affect the health of relatives, causing increased use of health care services and increased mortality. However, the long-term consequences for relatives with a persistent high grief symptom levels remain largely unexplored.
Aim: We aimed to investigate associations between grief symptom trajectories and the long-term health outcomes: contacts to general practice and mental health services, use of psychotropic prescription medication, and mortality.
Methods: We assessed grief symptoms (Prolonged Grief-13) in 1,735 bereaved relatives prior to, 6 months after, and 3 years after bereavement. We identified five grief trajectories (GT), including one (n=670 (45%)) with persistent low symptoms (LGT) used as reference, and one with persistent high symptom level (HGT) (n=107 (6%)).

Using negative binomial, logistic and Cox regression analysis, we investigated associations between GT and contacts to general practice, mental health services in primary care, use of antidepressants and anxiolytics/sedatives, and (4) mortality. Follow-up started at 3 years after bereavement and long-term outcome were followed until 10 years after patient's death.
Results: Relatives in the HGT had more GP contacts until seven years after bereavement compared to the LGT. The HGT was associated with higher use of mental health services [OR = 2.86 (95%CI 1.58;5.19)], antidepressants [OR = 5.63 (95% CI 3.52; 9.01)], sedatives/anxiolytics [OR = 2.60 (95%CI 1.63;4.14)], and excess mortality [HR = 1.88 (95% CI 1.1;3.2)] compared to the LGT.
Conclusions and clinical implication: Patients with persistent grief symptoms have an increased healthcare use up to 10 years after loss. Future research should assess whether current health care services sufficiently meet the prolonged needs of these relatives.

Is primary palliative care associated with designated GP at nursing homes and education in palliative care?

End-of-life care
Clinical General Practice

Mette Kjærgaard Nielsen[1]
Randi Kræmmer Nielsen[1], Per Kallestrup[1, 2], Mette Asbjoern Neergaard[3, 4], **Ina Laugesen**
[1] Research Unit for General Practice, Aarhus, Denmark
[2] Department of Public Health, Aarhus University
[3] Section for Palliative Care, Department of Oncology, Aarhus University Hospital, Denmark
[4] Deparment of Clinical Medicine, Aarhus University

Introduction: General practice may play a key role in primary palliative care. Being a designated general practitioner at nursing homes (designated GP) and attending continued medical education (CME) in palliative care may facilitate provision of palliative care. However, knowledge is scarce regarding the extent of primary palliative care and associated factors.
Aim: We aimed to describe the use of palliative care services in general practices and associations with being designated GP and having attended CME in palliative care.
Methods: In Central Denmark Region with 1.354.905 citizens (2024) and 341 general practices, the use of palliative care services from 2015-2024 was analysed based on register data on remuneration to general practice. Furthermore, we investigated associations with being a designated GP and participating in 2-hour CME sessions in palliative care in 2024 using chi^2 t-test.
Results: Among the general practices, the incidence of palliative care services increased from 5.020 in 2015 to 12,928 in 2024, which is a 2.4-fold increase/citizen adjusted for the rising number of citizens.

In 2024, the use of palliative care services was higher ($p<0.001$) for citizens of designated GPs (10,170/932,261 citizens (1.1%)) compared to non-designated GPs (2,758/422,644 citizens (0.65%)). The use of palliative care services in 2024 was higher ($p<0.001$) among those who participated in CME (3,912/359,388 citizens (1.1%)) compared to non-participants (9,016/995,517 citizens (0.9%)).
Conclusions and clinical implication: The use of the palliative care services increased over time, although lack of the services may exist causing registration bias. The *awareness* seems to increase after participation in CME - even in a brief one-off format.

Are school doctor services tailored to students' needs?

Care for children and adolescents
Clinical General Practice
Sanna Salonen[1, 2, 3]
Jenni Miettinen[1, 2], Lena Thorn[3, 4], Silja Kosola[2, 5]
[1] Faculty of Medicine, Helsinki University, Finland
[2] Western Uusimaa Wellbeing Services County, Finland
[3] Department of General Practice and Primary Health Care, University of Helsinki and Helsinki University Hospital, Finland
[4] Folkhälsan Research Center, Finland
[5] Clinicum, University of Helsinki, Finland

Introduction: More than 100 countries offer some type of school healthcare. In Finland, school doctors must conduct check-ups for all first, fifth, and eighth graders. Meanwhile, students in other school years may receive limited healthcare services.
Aim: To assess how effectively school doctor check-ups are targeted toward students with the greatest need, considering demographic factors and academic performance.
Methods: We combined school data from 38 municipalities and data on school healthcare use from all 8 wellbeing services counties of Southern Finland during the academic year 2023–2024. Our analyses included 170,936 students aged 7–15 years. Analyses were performed separately for each wellbeing services county and pooled using meta-analysis.
Results: Altogether 21.5% of students visited a school doctor during the school year, with substantial variation between grade levels and counties. Visit rates were 43.2% in first grade, 56.0% in fifth grade and 48.8% in eighth grade. Children with chronic absenteeism or need for educational support visited school doctors more overall. In age groups with mandatory check-ups, no association with chronic absenteeism was found, and educational support was associated with school doctor visits only in 1st and 5th grades. Demographically, students whose home language was other than Finnish or Swedish were less likely to visit a school doctor, particularly in the higher grades. (Table 1)
Conclusions and clinical implication: Coverage of mandatory check-ups was poor. Future efforts should consider targeting students with the greatest need and ensure equitable access, especially as the population becomes increasingly multilingual.

TABLE 1. Multivariable analysis of factors associated with visiting the school doctor during the school year 2023–2024

	WHOLE DATA, N=170 936			FIRST GRADE, N=18 408			FIFTH GRADE, N=18 982			EIGHT GRADE, N=17 846			OTHER, N=113 334		
	OR	*CI 95%*	*p-value*	*OR*	*CI 95%*	*p-value*	*OR*	*CI 95%*	*p-value*	*OR*	*CI95%*	*p-value*	*OR*	*CI95%*	*p-value*
Sex, male	**1.06**	**1.018-1.093**	**0.003**	1.00	0.937-1.062	0.944	1.03	0.958-1.101	0.454	0.98	0.885-1.093	0.758	**1.18**	**1.104-1.264**	**<0.001**
Home language, (not native)	**0.80**	**0.695-0.925**	**0.002**	0.76	0.540-1.064	0.109	**0.67**	**0.475-0.931**	**0.017**	**0.61**	**0.461-0.804**	**<0.001**	**0.73**	**0.602-0.882**	**0.001**
Absences more than >10% of minimum required hours	**1.09**	**1.029-1.154**	**0.003**	1.06	0.913-1.239	0.428	1.01	0.896-1.143	0.850	1.00	0.839-1.195	0.991	**1.28**	**1.194-1.378**	**<0.001**
Needed support in school	**1.42**	**1.221-1.655**	**<0.001**	**1.21**	**1.052-1.383**	**0.007**	**1.27**	**1.080-1.500**	**0.004**	1.20	0.9553-1.521	0.119	**2.81**	**1.762-4.468**	**<0.001**
Poor skills in mother tongue*							**0.85**	**0.738-0.969**	**0.016**	0.86	0.700-1.094	0.240			
Poor skills in mathematics*							1.00	0.868-1.144	0.962	0.95	0.839-1.076	0.420			

OR=odds ratio CI=confidence interval

* Poor skills were defined as a school grade below 7 on a scale from 4-10. Number grades are only used for students from third grade onwards.

Antibiotic prescriptions in out-of-hours primary care: a descriptive study across consultation types

E-health and telemedicine
Digitalization and Technology

Thea Kjærsgaard Mortensen[1, 2]
Mette Amalie Nebsbjerg[2], Katrine Bjørnshave Bomholt[2], Henrik Schou Pedersen[2], Morten Bondo Christensen[2, 3], Linda Huibers[2, 3]
[1] Aarhus University
[2] Research Unit for General Practice, Aarhus, Denmark
[3] Department of Public Health, Aarhus University

Introduction: Antimicrobial resistance is a global concern, threatening our ability to treat simple infections and perform life-saving procedures. Maintaining antimicrobial stewardship is essential—particularly in out-of-hours primary care (OOH-PC), where clinicians often lack patient history and access to previous records. They work under significant time pressure without the possibility of follow-up, while patients frequently present with infection-related health problems. Consequently, antibiotic prescription rates in OOH-PC may be higher than in daytime practice. At a Danish OOH-PC service, one in five telephone triage contacts resulted in a prescription, half of which were antibiotics. In 2014, 40% of antibiotics in Danish OOH-PC were prescribed via telephone. Since then, video consultations have been introduced, but their impact on prescribing patterns remains unclear. This highlights the need to reassess current antibiotic prescribing patterns across consultation types.
Aim: To describe antibiotic prescribing patterns at a regional OOH-PC service in Denmark, for all contact types (i.e., video, telephone, and clinic consultations) from 2021 to 2024.
Methods: We conduct a population-based observational registry study using OOH-PC data from the Central Denmark Region. We examine antibiotic prescription rates per 1,000 contacts, stratified by consultation type, antibiotic class, time of day, age, sex, and temporal trends. Data are linked to national registers and analysed using STATA.
Results: Analysis ongoing; results expected in April 2025.
Conclusions and clinical implication: This study may inform future research and support clinical decision-making in the context of increasing use of video triage in OOH-PC.

Digital preparation before a consultation – a co-creation collaboration with patients and general practice in Denmark

Other
Digitalization and Technology

Karina Berthu Ellegaard Skov[1]
Gitte Stentebjerg Petersen[2], Inger Uldall Juhl[1], Dorthe Christiane Zinck Iversen[1], Finn Sørensen[1]
[1] SydKIP, Region of Southern Denmark
[2] Steno Diabetes Center Odense, Region of Southern Denmark

Introduction: In Denmark, 3 million citizens use 'Min Læge'-app in general practice to book appointments, e-consultation etc. In 2025, a new function was tested, which encourages patients to prepare for the consultation by answering three questions. The answers are available for the nurse or general practitioner before the consultation.
Aim: The function was developed in co-creation with patients and general practice to increase patient involvement and improve consultations. The aim of the test was to show how patients and general practice experience 1) the impact of the IT-function on the consultation process and 2) the preparation on the following consultation.
Methods: The function was tested in six clinics for two months. Patients with an appointment was encouraged to answer the questions in the app. Patients evaluated the function through postcard surveys, and semi-structured phone interviews and the clinics participated in focus groups interviews.
Results: Results from the evaluation will be available in January 2026. Preliminary feedback from 40 patients, who have used the function show that patients in general want to prepare, acknowledge the relevance of the three questions and experience a positive and more focused consultation.
Conclusions and clinical implication: Simple questions and preparation before the consultation can be implemented in digital booking systems (e.g. an app), which can enhance the patient/practitioner relationship. The results from the test are used as decision basis for adapting the function and determining whether the function should be national implemented.

Systematic review of outcomes of quality and safety in the management of multimorbidity in primary care

Multimorbidity and complex care needs
Clinical General Practice
DESMOND LUAN SENG ONG[1]
Cindy Shi Qi Zhu[1], Alice Kin Yui Lo[1], Chun Yen Beh[1], Jose Maria Valderas[2]
[1] National University Polyclinics, Medical, Singapore
[2] National University Singapore, Division of Family Medicine, Singapore

Introduction: Multimorbidity is associated with poorer outcomes such as functional decline and poorer quality of life. Primary care clinical guidelines are focused on single diseases, and recommended outcome indicators may not be optimal for multimorbidity management. Indicators specific for multimorbidity are essential to support performance evaluation and quality improvement in multimorbidity management in primary care.
Aim: To identify process and outcome indicators of quality and safety used in multimorbidity management in primary care
Methods: A systematic review was performed, following a registered protocol (PROSPERO CRD42023388669), to search for publications that included process and outcome measures, and indicators, in multimorbidity management in primary care. A search strategy was crafted around the concepts of multimorbidity, process and outcome measures, and primary care, and applied on electronic databases (MEDLINE, EMBASE, CINAHL, Scopus, and Web of Science). Abstracts and subsequently full texts were screened independently by two reviewers each. Screening of citations and references of included papers were also conducted. Data extraction was done using a data extraction form. An updated search was also completed.
Results: A total of 3714 abstracts were retrieved and screened, and 29 papers included for review. Citation screening added another 44 papers. Three additional papers were included from other sources. The updated search yielded another 41 papers, making a total of 117 papers included for the review. 97 outcomes were collated. In addition, 65 indicators were found as well.
Conclusions and clinical implication: Outcomes across multiple domains of care were found to be used in the assessment of multimorbidity management.

Developing a Framework for Healthcare Value Evaluation in Multimorbidity Management in Primary Care

Multimorbidity and complex care needs
Clinical General Practice

DESMOND LUAN SENG ONG[1]
Cindy Shi Qi Zhu[1], Alice Kin Yui Lo[1], Chun Yen Beh[1], Jose Maria Valderas[2]
[1] National University Polyclinics, Medical, Singapore
[2] National University Singapore, Division of Family Medicine, Singapore

Introduction: Value-based healthcare places emphasis on achieving patient-centred outcomes. Strong primary care systems are associated with better outcomes and lower costs, underscoring the need to enhance primary care to deliver value. Many patients seen in primary care experience multimorbidity, which contributes to poorer outcomes and greater burden. Existing clinical guidelines remain largely disease-specific, and there is limited consensus on how multimorbidity should be managed or which outcomes should be prioritised.

Aim:

1. Identify empirical outcomes, indicators, and instruments used to evaluate multimorbidity management in primary care.
2. Develop a set of indicators to measure the value of multimorbidity management in primary care.
3. Pilot test the indicators on a primary care population for acceptability and feasibility
4. Incorporate the indicators in an analytics framework for systematic implementation

Methods: A systematic literature review will identify processes, outcomes, indicators, and measurement instruments relevant to multimorbidity management in primary care. Using this pool of measures, a Delphi consensus process will be conducted to develop a set of clinical indicators reflecting the value of care. An analytics framework will then be designed to quantify these indicators rigorously in a primary care population.

Results: The systematic review has been completed. After abstract, full-text, and citation screening, 76 papers have been included. An updated search yielded another 41 papers. To date, 97 process and outcome measures have been identified, along with 65 indicators.

Conclusions and clinical implication: This project will enable healthcare value in multimorbidity management within primary care to be evaluated in a systematic and quantifiable manner.

Medication-Assisted Rehabilitation: Rural GPs' Experiences of Collaboration with Specialist Care

Continuity of care
Clinical General Practice

Camilla Kjeldsen Lie[1]
Martin Bruusgaard Harbitz[2]
[1] Camilla Kjeldsen Lie Fifth-year Medical Student, UiT The Arctic University of Norway, Faculty of Health Sciences, Norway.
[2] Martin Bruusgaard Harbitz Researcher UiT The Arctic University of Norway, Department of Community Medicine (ISM), National Centre for Rural Medicine, Norway

Introduction: One of the populations most in need of good care in general practice are those suffering from opioid use disorder. The treatment and care should address all health needs, including medication-assisted rehabilitation (MAR). In Norway specialist physicians are responsible for this treatment, but the treatment is, de facto, carried out and monitored by general practitioners. Especially in rural areas, this requires a collaboration between all involved parties.
Aim: The objective of the study is to identify experiences of the cooperation between primary and specialist health care services in the treatment in medication-assisted rehabilitation. The thesis focuses particularly on how the collaboration is carried out in rural areas.
Methods: We have interviewed three general practitioners from three different local communities in rural Norway. The analysis is in process and is performed using systematic text condensation.
Results: During abstract presentation at NC2026 – the first author will outline the major findings from the analysis. Preliminary findings indicate variation in the collaboration, communication, division of responsibilities, and continuity of patient care.
Conclusions and clinical implication: The study holds both practical and academic relevance, and can hopefully offer a deeper insight into the collaboration beween general pratitioners and spcialist physician in MAR.

Longitudinal Associations Between Osteoarthritis and Cognitive Function in Middle-Aged and Older Europeans

Musculoskeletal
Clinical General Practice

Aisha Alayna Brown[1]
Jesper Lykkegaard[1], Jonas Bloch Thorlund[1, 2, 3], Jens Søndergaard[1], Sören Möller[4], Linda Juel Ahrendfeldt[1]
[1] Research Unit of General Practice, Department of Public Health, University of Southern Denmark, Odense-Esbjerg, Denmark
[2] Centre for Muscle and Joint Health, Department of Sports Science and Clinical Biomechanics, University of Southern Denmark, Odense, Denmark
[3] Pain Research Group, Department of Anesthesiology and Intensive Care, Odense University Hospital, Odense, Denmark
[4] Unit for Epidemiology, Biostatistics and Biodemography, Department of Public Health, University of Southern Denmark, Odense, Denmark

Introduction: Osteoarthritis (OA) affects approximately 101 million Europeans, with prevalence predicted to increase in the coming decades. OA is associated with poorer cognitive function, however, associations over time remain unclear.
Aim: We aimed to investigate the longitudinal association between OA and cognitive function among middle-aged and older adults across sex, age and European regions.
Methods: We performed a longitudinal analysis on waves 5–9 (excluding wave 7) of the Survey of Health, Ageing and Retirement in Europe (SHARE). We included participants aged 50 years and older with at least two cognitive assessments. Associations were analyzed using mixed-effects linear regression models, adjusting for socio-demographic factors and medical history.
Results: Among 70,762 participants (mean age 70 [SD 9.18] years, 57% female) prevalence of self-reported OA was 18%. In the crude model, participants with OA had a cognitive function score 0.93 points lower than those without OA (95% confidence interval (CI): -1.11 to -0.75). In the fully adjusted model, the association persisted (-0.42 points, 95% CI: -0.74 to -0.10). Age-stratified analyses showed the strongest association among participants aged 80 years and older (-1.10 points, 95% CI: -1.81 to -0.37), while in younger age groups the association was attenuated after full adjustment. The associations were consistent across sex and European regions.
Conclusions and clinical implication: Individuals with OA reported lower cognitive scores at follow-up compared to those without OA across all regions and age groups, particularly at age 80 and older. Managing OA and its consequences could be important for maintaining cognitive health in older adults.

Complications in children with acute media otitis managed with watchful waiting versus immediate antibiotic treatment

Infections
Clinical General Practice

Evi Stotijn[1]
Jon Pallon[2, 3], Mia Tyrstrup[2, 4], Olof Cronberg[1, 2], Katarina Hedin[2, 5, 6]
[1] Växjöhälsan Primary Health Care Centre, Region Kronoberg, Sweden
[2] Department of Clinical Sciences in Malmö, Family Medicine, Lund University, Malmö, Sweden
[3] Department of Research and Development, Region Kronoberg, Växjö, Sweden
[4] Lundbergsgatan Primary Health Care centre, Malmö Sweden
[5] Department of Health, Medicine and Caring Sciences, Linköping University, Region Linköping
[6] Futurum, Region Jönköping County, Jönköping, Sweden

Introduction: Acute otitis media (AOM) is one of the most common reasons for antibiotic prescription in children treated in primary care in Sweden. Reviews have only shown marginal effect of antibiotics on the course of disease in children. Swedish guidelines therefore recommended a watchful waiting policy for uncomplicated AOM in children aged 1–12 years.
Aim: We aim to investigate whether children aged 1–12 years with uncomplicated AOM, managed with a watchful waiting policy are at higher risk of complications compared to children who receive immediate antibiotic treatment?
Methods: This retrospective cohort study is based on routine health care data from 2.3 million inhabitants in four regions in southern Sweden from January 2018 to December 2021. We included patients aged 1–12 years who sought care in primary care or outpatient secondary care with AOM. We investigated the risk of complications within 30 days after AOM diagnosis. We also examined the potential influence of patient characteristics such as comorbidity.
Results: Only 20% of the children were managed with watchful waiting. Complications of media otitis are rare. We did not find a higher risk for complications in the watchful waiting group compared with children who received immediate antibiotic treatment. Further analysis I ongoing and will be presented at the congress.
Conclusions and clinical implication: The large portion of the children treated with antibiotics and the possible influence of indication bias with treatment decisions should be considered when interpreting the results. Nonetheless, our study supports current guidelines allowing watchful waiting in healthy children aged 1–12 years.

Older Adults´ Experiences and Perspectives on Health, Ageing, Mental Health and Spirituality: a qualitative study.

Patient centered care
Clinical General Practice

Ann Lindelöf[1]
Åshild Faresjö[2], Hanna Israelsson Larsen[1], Jenny Koppner[1], Peter Johansson[3], Fredrik Iredahl[1]
[1] Department of Health, Medicine and Caring Sciences, Division of General Practice, Linköping University, Linköping, Sweden.
[2] Department of Health, Medicin and Caring Sciences, Division of Society and Health/Public Health, Linköping University, Linköping, Sweden.
[3] Division of Nursing Sciences and Reproductive Health, Department of Health, Medicine and Caring Sciences, Linköping University, Linköping, Sweden.

Introduction: Ageing is closely linked to changes in physical and mental health, as well as existential and spiritual dimensions of life. Understanding how older adults perceive these aspects is essential for promoting well-being and resilience in later life.
Aim: To investigate experiences and perspectives about health, ageing, mental health, and spirituality among older adults in the Southeast of Sweden.
Methods: A qualitative descriptive design with 25 semi-structured individual face-to-face interviews. To analyze the transcribed interviews, Reflexive Thematic Analysis with an inductive and constructivist epistemological approach was used.
Results: 5 main themes and 19 subthemes were identified. 1) “The body as a companion through change”; older adults experience health by normalizing bodily changes, adapting daily, and appreciating what still works. 2) “Everyday life of independence”; independence is both an ideal and a source of security, serving as a buffer against worries and as a foundation for hope, dignity, and vitality in later life. 3) “Life in relation to others”; relationships balance closeness and freedom, continuity and loss, providing meaning and shaping perceived health. 4) “Find peace in what is changing”; health means accepting vulnerability, managing worries, and caring for loved ones. 5) “Living with the passage of time – meaning, reflection and the finitude of life”; an existential theme links health to life´s final stages and death, emphasizing meaning through nature, spirituality, relationships, memories, and life wisdom for inner balance.
Conclusions and clinical implication: The findings of this study emphasize that ageing is a complex process in which physical health, psychological well-being, and spiritual dimensions interact dynamically.

Psychometric properties and diagnostic performance of Geriatric Anxiety Scale 10 (GAS-10) in Swedish Primary Care

Mental health
Clinical General Practice
Björn Wennlöf[1, 2]
Johnny Pellas[1], Elin Byström[1, 2], Lena Lönnberg[1, 2], Mattias Damberg[1, 2]
[1] Department of Public Health and Caring Sciences, Uppsala University, Uppsala, Sweden
[2] Centre for Clinical Research Västmanland, Uppsala University, Västerås, Sweden

Introduction: Anxiety is common among older adults. It is associated with functional decline and reduced overall health. Efficient treatments exist. Despite this, diagnostics in primary care is difficult, with both over- and underdiagnosis. Therefore, there is a need for brief, easily administered screening tools to be used in everyday clinical practice.

GAS-10 is a 10-item screening tool ranging from 0-30 points, designed to assess anxiety symptoms in older adults. Higher values indicating greater symptom severity. It has shown good psychometric properties in different settings but has never been evaluated in a primary care sample.
Aim: To assess reliability, construct validity and diagnostic performance of GAS-10 in Swedish primary care.
Methods: Data from 123 patients, 65 years and older, identified by general practitioners to suffer from depression, were gathered within the DepActive multicentre randomised controlled trial. Reliability was assessed by calculating Cronbach's α and structural validity by confirmatory factor analysis (CFA). Diagnostic accuracy was calculated with area under the curve (AUC), sensitivity and specificity with the Mini International Neuropsychiatric Interview as reference test.
Results: Crohnbach's α was acceptable at .85. The CFA showed acceptable to excellent fit to a single-factor model. Area under curve was acceptable at 0.75. Optimal cut-off was 9 points, with a sensitivity of 70% and a specificity of 70%.
Conclusions and clinical implication: The Swedish version of the GAS-10 shows acceptable reliability and structural validity. The fairly good diagnostic performance of this short scale makes it potentially useful in clinical routine among older adults.

Medical case vignettes for peer learning about low-value prescribing in older people in primary care: a pilot study

Lifelong learning and CPD strategies
Continuous Professional Development (CPD)

Luisa Ocampo[1, 2]
Maria Axelsson[3], Staffan A. Svensson[4, 5], Susana M. Wallerstedt[5, 6], Naldy Parodi Lopez[5, 7]
[1] Praktikertjänst Allekliniken Sleipner Medical Centre, Borås, Sweden
[2] Primary Health Care Research, Development and Education Centre, County Administration of West Sweden
[3] Närhälsan Tjörn Medical Centre, Tjörn, Sweden
[4] Nötkärnan Bergsjön Medical Centre, Gothenburg, Sweden
[5] Department of Pharmacology, Sahlgrenska Academy, University of Gothenburg, Gothenburg, Sweden
[6] Center for Health Technology Assessment, Sahlgrenska University Hospital, Region Västra Götaland, Gothenburg, Sweden
[7] Department of Clinical Pharmacology, Sahlgrenska University Hospital, Gothenburg, Sweden

Introduction: Low-value prescribing can be defined as pharmacotherapy where expected harms exceed expected benefits. Treatment with multiple medications (polypharmacy) contributes to decision-making challenges, making deprescribing is a timely topic.
Aim: To explore the value of medical case vignettes in promoting peer learning about low-value prescribing.
Methods: As part of a project that compares the assessments of medical case vignettes by physicians and artificial intelligence, two family physicians constructed 40 primary care scenarios (≥65 years, 53% women, 5–14 medications). Two other family physicians independently and then in consensus proposed deprescribing actions (withdrawal/dose reduction) related to low-value prescribing. In this study, we describe the independent assessments and their value as a foundation for learning and peer learning.
Results: In all, 141 (50%) out of 281 medications were assessed as suitable for deprescribing by at least one physician—99 by one and 87 by the other. Ten medications were identified in at least four cases: furosemide, omeprazole, acetylsalicylic acid, hydrochlorothiazide, atorvastatin, citalopram, diclofenac, mirtazapine, tramadol, and zopiclone. Percentage agreement was greatest for tramadol (100%) and zopiclone (75%), and lowest for mirtazapine (0%). Feedback from physicians showed that independent assessments were valuable for self-reflection, while consensus discussions with a peer provided opportunities to share experiences and learn from each other.
Conclusions and clinical implication: Assessments of medical case vignettes with focus on low-value prescribing in older people diverge to a substantial extent between physicians. Independent assessments may represent a valuable approach in continuing medical education, serving as a basis for reflection and peer learning.

Young adults' thoughts and experiences without mobile phone 30 minutes before bedtime for 10 nights – an ongoing study

Mental health
Clinical General Practice
Ingmarie Skoglund[1]
Carl Wikberg[1], Sara Thomee[2]
[1] General Practice/Family Medicine, School of Public Health and Community Medicine, Institute of Medicine, Sahlgrenska Academy, University of Gothenburg, Gothenburg, Sweden. Research, Education, Development & Innovation, Primary Health Care, and Boda Primary Health Care Centre, Region Västra Götaland, Sweden.
[2] Department of Psychology, University of Gothenburg, 405 30 Gothenburg, Sweden.

Introduction: Swedish young adults have reported increasing sleeping problems since the late 20th century. Sleep problems relate to depression and anxiety, but also to the use of digital technology, especially in the evening and at night. To test current healthcare advice about restricting screentime before bedtime an RCT intervention study has been started, in which young adults restrict their screentime from 30 minutes before bedtime and during the night for 10 days. As part of the research study, an interview study with a sub-sample of participants in the intervention group is carried out.
Aim: To investigate young adults 'thoughts and experiences after being without mobile phones and other digital devices from 30 minutes before bedtime and during the night.
Methods: Semi-structured interviews with 10-15 participants from the RCT study about how they experienced being without their digital devices before bedtime and during the night. The interview data is analyzed using thematic analysis.
Results: Data-collection and analyses are ongoing, and results will be presented at the conference. The results are expected to fill a knowledge gap about how screentime restriction is experienced by the participants and indicate if the current health care advice is feasible.
Conclusions and clinical implication: The results are expected to be useful when healthcare providers advise on reducing screen use before sleep.

Digital cognitive behavioral therapy to improve quality of life in patients with RLS – design of the JU Sleep Well Study

Multimorbidity and complex care needs
Clinical General Practice

Elzana Odzakovic[1]
Martin Ulander[2], Susanna Jernelöv[3], Kerstin Blom[4], Viktor Kaldo[5], Martin Kraepelien[2], Jonas Lind[6], Fredrik Lundin[7], Amir Pakpour[1], Amanda Hellström[8], Cecilia Fagerström[9], Christina Sandlund[10], Bengt Fridlund[11], Anders Broström[1, 12]
[1] School of Health and Welfare, Jönköping University, Jönköping, Sweden.
[2] Department of Clinical Neurophysiology, Linköping University Hospital, Linköping, Sweden. Department of Biomedical and Clinical Sciences, Division of Neurobiology. Linköping University, Linköping, Sweden
[3] Centre for Psychiatry Research, Department of Clinical Neuroscience, Karolinska Institute & Stockholm Health Care Services, Stockholm, Sweden. Division of Psychology, Department of Clinical Neuroscience, Karolinska Institute, Stockholm, Sweden.
[4] Centre for Psychiatry Research, Department of Clinical Neuroscience, Karolinska Institute & Stockholm Health Care Services, Stockholm, Sweden
[5] Division of Psychology, Department of Clinical Neuroscience, Karolinska Institute, Stockholm, Sweden.Department of Health and Caring Sciences, Faculty of Health and Life Sciences, Linnaeus University, Växjö, Sweden.
[6] Section of Neurology, Department of Internal Medicine, County Hospital Ryhov, Jönköping, Sweden
[7] Department of Neurology, and Department of Biomedical and Clinical Sciences, Linköping University, Linköping, Sweden
[8] Department of Health and Caring Sciences, Faculty of Health and Life Sciences, Linnaeus University, Kalmar, Sweden. Academic Primary Care, Öland, Kalmar County, Sweden. 8Kalmar County Region, Research Section
[9] Kalmar County Region, Research Section.
[10] Department of Neurobiology, Care Sciences and Society, Karolinska Institute, Stockholm, Sweden. Academic Primary Health Care Centre, Region Stockholm, Stockholm, Sweden
[11] Centre for Interprofessional Collaboration within Emergency Care (CICE), Linnaeus University, Växjö, Sweden
[12] Norway University of Applied Sciences, Department of Health and Caring Sciences, Norway.

Introduction: Restless Legs Syndrome (RLS) is often treated in primary care. Several pharmacological options exist, but treatment is difficult to optimize. Self-care is an additional, albeit rarely utilized, option. Cognitive Behavioral Therapy (CBT) can aid coping, but no digital CBT programs exist to complement medication. The ongoing JU Sleep Well Study intends to evaluate the long-term effects of a digital co-created CBT-based intervention for primary care patients with RLS.
Aim: To describe the design and content of the JU Sleep Well Study.
Methods: A four-step multimethod design with a randomized controlled trial (RCT) and long-term follow-up is used (Figure 1). A multiprofessional team, including individuals with RLS, researchers, and healthcare professionals, co-designed the intervention.

Results: *Step 1* (2022–2026) employed qualitative methods to describe RLS-related care needs as experienced by patients, relatives, and practitioners. *Step 2* (2022–2026) validated several outcome measures. In *step 3* (2026), the co-designed digital CBT-based intervention will be pilot-tested at one center. The intervention focuses on insomnia (4 weeks) and RLS (4 weeks) and contains videos, text and patient cases. RLS-adapted CBT exercises are used. In *step 4* (2026–2028), a multicenter RCT conducted at eleven primary care centers will evaluate long-term effects (12-month follow-up).
Conclusions and clinical implication: By systematically mapping the perspectives of patients, relatives, and healthcare professionals, this project provides an evidence-based foundation for a digital CBT-based intervention. If proven effective, it could complement pharmacological treatment, support coping, and improve quality of life for patients with RLS in primary health care settings.

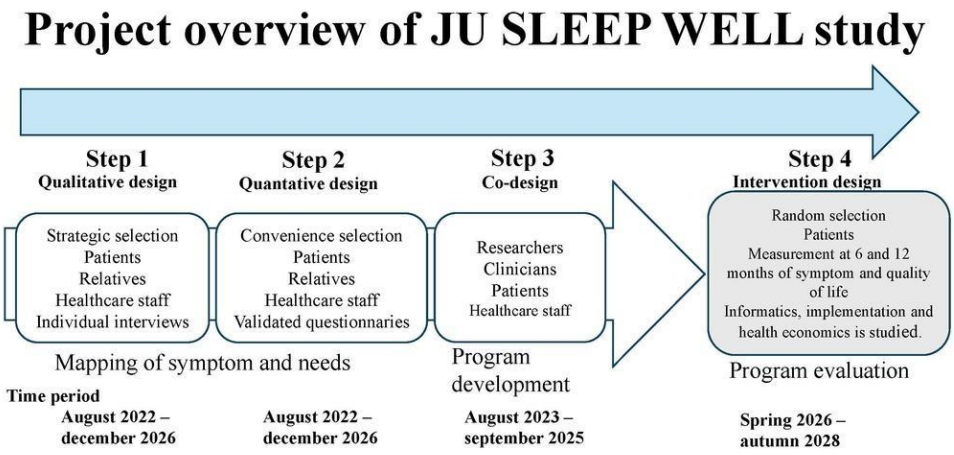


Figure 1. Project overview from step 1-4

Oral

Change of primary health care service provider model in Vantaa: the impact on mortality and causes of death

Quality and safety
Health services

Aina Enckell[1]
Hanna-Maria Roitto[2], Hannu Kautiainen[1], Mika T. Lehto[1], Kaisu Pitkälä[1], Timo Kauppila[2], Merja K. Laine[1]
[1] University of Helsinki, Department of General Practice and Primary Health Care.
[2] Department of Medicine, Clinicum, University of Helsinki, Helsinki, Finland

Introduction: Access to primary health care (PHC) has declined in Finland in recent years. To address this, the city of Vantaa, Finland, transitioned from a named general practitioner (GP) model to a restricted-list GP model in 2011 to increase access to named GPs for the most vulnerable population.
Aim: This study evaluates the impact of this model change on mortality rates and causes of death among older adults.
Methods: This register-based follow-up study was conducted in Vantaa, Finland, using data from the electronic health records. The study included all patient contacts aged 75 and older between 1 September 2004 and 31 August 2018. The primary outcome was the Standardised Mortality Ratio (SMR). We calculated excess deaths and examined cause-specific mortality trends before and after the restricted-list GP model implementation.
Results: During the study period, 32,034 contacts were recorded. SMR remained stable during the named GP model years but began to decrease during the restricted-list GP model, falling below expected levels from 2016 onward. Excess deaths decreased from 615 in 2004 in the named GP model to -29 by 2018, when the restricted-list GP model was operating. Leading causes of death were circulatory diseases (41.1%), cancers (20.4%) and neurological conditions (17.8%), with a decrease in circulatory disease deaths and an increase in cancer and dementia-related deaths over time.
Conclusions and clinical implication: The transition to the restricted-list GP model was associated with a lower SMR and fewer excess deaths in older adults. These findings highlight the importance of assessment of PHC models to ensure they meet evolving healthcare demands.

Patient characteristics and healthcare contacts prior to invasive Group A streptococcal infection –a retrospective study

Infections
Clinical General Practice

Marcus Lagebrant[1, 2]
Olov Aspevall[3], Eva Melander[4, 5], Anna Moberg[1, 6], Barbro Mäkitalo[3], Jon Pallon[7, 8], Magnus Rasmussen[9, 10], Mia Tyrstrup[7, 11], Thomas Tängdén[12, 13], Katarina Hedin[1, 7, 14]
[1] Linköping University, Department of Health, Medicine and Caring Sciences (HMV), Sweden
[2] Wetterhälsan Primary Health Care Centre, Jönköping, Region Jönköping County, Sweden
[3] Public Health Agency of Sweden, Sweden
[4] Lund University, Department of Translational Medicine, Lund, Sweden
[5] Regional Centre of Communicable Disease Control, Region Skåne County, Sweden.
[6] Kärna Primary Health Care Centre, Linköping, Region Östergötland County, Sweden.
[7] Lund University, Department of Clinical Sciences in Malmö, Sweden
[8] Skärvet Primary Health Care Centre, Växjö, Region Kronobergs County, Sweden.
[9] Lund University, Department of Clinical Sciences in Lund, Sweden
[10] Department of Infectious Diseases, Skåne University Hospital, Lund, Region Skåne County, Sweden.
[11] Lundbergsgatan Primary Health Care Centre, Malmö, Region Skåne County, Sweden.
[12] Uppsala University, Department of Medical sciences, Sweden
[13] Department of Infectious Diseases, Uppsala University Hospital, Uppsala, Region Uppsala County, Sweden.
[14] Futurum, the Academy for Health and Care, Region Jönköping County, Sweden.

Introduction: The incidence of invasive Group A streptococcal infections (iGAS) has increased in European countries following the Covid-19 pandemic. The reasons for the surge are not sufficiently understood. The number of patients presenting with infectious symptoms at healthcare facilities as well as the proportion treated with antibiotics prior to hospitalisation due to iGAS is scarcely described.
Aim: To describe infectious symptoms, healthcare contacts, and antibiotic use in children and adults during the two weeks prior to hospital admission due to iGAS.
Methods: This nationwide retrospective cohort includes cases of iGAS, in both children and adults, reported to the Public Health Agency of Sweden during 2023–2024. Clinical data, including comorbidities, immunosuppressive and antibiotic treatments, symptoms, and healthcare contacts prior to iGAS, will be extracted from patient medical records and linked to the reported cases in the cohort.
Results: 2023-2024, 2690 cases of iGAS were reported and 2064 met the case definition. For children (<18) the median age was 5 year and for adults 65 years. Forty-eight percentage was women. Data extraction from the Swedish health care regions is ongoing and preliminary results regarding comorbidities, antibiotic treatment, symptoms etc. will be presented during the NCGP-conference.
Conclusions and clinical implication: The study is crucial for the understanding of symptoms and health care seeking behaviour that precedes iGAS. This national cohort will provide more robust findings than earlier smaller studies. This knowledge may facilitate earlier recognition of iGAS in

primary care settings and contribute to valuable evidence for the development of national clinical guidelines.

Caring for Young Minds: General Practitioners' Self-Assessed Competence in Child and Adolescent Psychiatry

Mental health
Clinical General Practice

Lars Söderström[1, 2, 3]
Sofia Dalemo[2, 3, 4, 5], Rajna Knez[3, 6, 7, 8]
[1] Centrum Healthcare Centre, Praktikertjänst AB, Skövde, Sweden
[2] Research, Education, Development & Innovation, Primary Health Care, Region Västra Götaland, Sweden
[3] The Skaraborg Institute, Skövde, Sweden
[4] Närhälsan Guldvingen Healthcare Centre, Lidköping, Sweden
[5] Public Health and Community Medicine, Institute of Medicine, Sahlgrenska Academy, University of Gothenburg, Gothenburg, Sweden
[6] Gillbergcentrum, Institute of Neuroscience and Physiology, Sahlgrenska Academy, University of Gothenburg, Göteborg, Sweden
[7] Child and Adolescent Medicine, Child and Adolescent Psychiatry and Women's Health, Skaraborg Hospital, Skövde, Sweden
[8] School of Health Sciences, University of Skövde, Sweden

Introduction: Since the 1990s, mental illness among children and adolescents in Sweden has risen steadily, now ranking among the highest in Europe. Despite this, general practitioners' and resident physicians' education in primary healthcare in child and adolescent psychiatry is limited. Nevertheless, these professionals are expected to possess broad competence in managing mental health issues in young patients.
Aim: This study of general practitioners and resident physicians in primary healthcare regarding children and adolescents with mental health problems aimed to map 1) the self-assessed amount of education in child and adolescent psychiatry, 2) self-perceived competence, divided into different types of symptoms, and 3) self-perceived competence when prescribing psychiatric medications.
Methods: A cross-sectional study was conducted using web-based questionnaires completed by 184 GPs and 144 resident physicians in Sweden's second-largest region. Data were analyzed using the Pearson's Chi-squared test, Fisher's exact test, and the Holm-Bonferroni method.
Results: Most participants reported limited education in child and adolescent psychiatry. Further, they reported lower competence in managing mental illness and prescribing drugs for children (6–12 years) compared to adolescents (13–17 years). Particularly low competence was reported in self-harm, eating disorders, and addictive disorders.
Conclusions and clinical implication: The growing prevalence of mental health illnesses among children and adolescents is increasing pressure on primary care, with more young patients seeking help and higher expectations on providers. This study reveals that general practitioners and resident physicians feel underprepared in managing these patients, revealing gaps in medical education and underscoring the need for improved continuing medical education.

Epidemiology of childhood constipation: a national study of Swedish children from 2006 to 2023

Care for children and adolescents
Clinical General Practice
Helena Kornfält Isberg[1, 2]
Kathy Falkenstein-Hagander[3], Mariette Derwig[2], cecilia Lenander[1], Lars Hagander[4]
[1] 1.Department of Clinical Sciences, Family Medicine and Community Medicine, Lund University, Malmö, Sweden
[2] 2.Office for Primary Care, Skåne University Hospital, Lund, Sweden
[3] Unit for Knowledge-based Management, Department of Health Care Management, County of Scania, Sweden.
[4] 3.Pediatric surgery, Department of Clinical Sciences Lund, Lund University. Skane University Hospital Lund, 22184 Lund, Sweden

Introduction: Childhood constipation is increasingly common, yet its prevalence is uncertain. This study examines comprehensive national data for trends in medically treated childhood constipation over a period of 18 years
Aim: To assess the changes of prescription of constipation drugs in Swedish children over time, stratified according to age, gender, and geographic distribution.
Methods: All Swedish children, 0-14 years between 2006 and 2023 and all prescriptions for constipation were included, using the national Swedish Prescribed Drug register. The primary outcome was the number of unique patients prescribed, presented by age, gender, year, county, and ATC-code**.** Univariate and multivariable linear regression with ecological data were assessed for associations with age, gender, and year of prescription
Results: The study population increased from 1.54 to 1.84 million children 0-14 years, while constipation increased more than sixfold, from 1.2% in 2006 to 7.9% in 2023. Children 0-4 years were prescribed the most, with an increase from 1.6% to 9.5%. Female gender was associated with 7.5 higher prescription frequency per 1000 inhabitants when adjusted for age and year (4.6–10.5 95%CI, $p<0.001$). In 2023, girls aged 0-4 years were prescribed 27% more than boys (106.5 vs. 83.7 per 1000), compared with 23% among the 5–9-year-olds (86.8 vs. 70.6 per 1000), and 18% among the 10–14-year-olds (45.0 vs. 38.1 per 1000).
Conclusions and clinical implication: This nationwide study shows a significant increase in medically treated childhood constipation in Sweden during the past 18 years. These trends highlight the need for early prevention, increased awareness, and resource planning to manage the growing burden of pediatric constipation.

Arts on prescription for primary healthcare patients with poor mental health or social isolation: a mixed-method study

Mental health
Clinical General Practice
Anita Jensen[1, 2]
[1] Center for Primary Health Care Research, Department of Clinical Sciences Malmö, Lund University, Malmö, Sweden
[2] University Clinic Primary Care, Skåne University Hospital, Region Skåne, Sweden

Introduction: Primary healthcare providers are increasingly challenged in supporting patients with psychosocial needs. Arts on Prescription (AoP) has been shown to improve primary healthcare patients' mental health wellbeing.

Aim: The aim of the study is to understand the psychosocial effect of participating in an Arts on Prescription programme.
Methods: A total of 112 primary healthcare patients in Scania with mental health diagnoses depression, stress and anxiety or social isolation participated in a 10-week group-based arts programme, twice a week (2 h). Short Warwick Edinburgh Mental Wellbeing Scale (SWEMWBS), Salutogenic Health Indicator Scale (SHIS) (for baseline and follow-up) and 14 sociodemographic and self-rated health covariates were collected as baseline. We also conducted 28 semi-structured interviews. We used paired t-test and a general linear regression model for change in SWEMWBS and SHIS. Qualitative data were analysed using a thematic approach.
Results: Paired t-test showed highly significant results ($p < 0.001$) for increase in both SWEMWBS and SHIS. The general linear regression models show that women and participants with poorer self-rated health (SRH), more contacts with the healthcare system, other referrals from the primary healthcare centre, and no previous arts engagement displayed significantly stronger associations with increase in SWEMWBS but not SHIS. Qualitative results highlight use of other interventions and difficulties navigating the health system.
Conclusions and clinical implication: Findings support a proportionate universalism (scale and intensity proportionate to degree of need) approach indicating that AoP could be valuable additions to healthcare pathways enhancing wellbeing for vulnerable populations. Findings should be interpreted with caution due to small sample size.

Prescription patterns of psychotropic drugs after implementation of the Primary Care Behavioral Health model

Interprofessional collaboration and team-based care
Health services

Victor Feldin[1]
Lise Bergman Nordgren[2, 3], Per Nilsen[4], Johan Sjögerén[5], Kristin Thomas[4], Hanna Israelsson Larsen[4, 6]
[1] Rosenhälsan Primary Care Center, Region Jönköping County, Huskvarna, Sweden
[2] Department of Medicine, Örebro University, Örebro, Sweden
[3] Division of Psychiatry, Region Örebro, Örebro, Sweden
[4] Department of Health, Medicine and Caring Sciences, Linköping University, Linköping, Sweden
[5] Department of Medicine, Hallands sjukhus Varberg, Varberg, Sweden
[6] Cityhälsan Centrum Primary Care Center, Region Östergötland, Linköping, Sweden

Introduction: Mental health problems are highly prevalent, and integrated care models, such as the Primary Care Behavioral Health (PCBH) model, have been proposed as a way to manage them.
Aim: The purpose of this study was to assess whether prescription levels of psychotropic drugs declined after implementation of the PCBH model, analyze differences between medication classes, and compare prescription patterns by sex and age.
Methods: A pragmatic stepped-wedge cluster trial study design was used to assess 20 primary care centers in Region Östergötland, Sweden, between 2019 and 2022. Psychotropic drug prescriptions in adult patients with mental health diagnoses (ICD-10: F00–F99) were analyzed according to changes in the overall number, the different medication classes (antipsychotics, anxiolytics, hypnotics and sedatives, antidepressants), sex, and different age groups.
Results: The study included 28,919 patients. Overall, psychotropic drug prescriptions decreased by 11% between baseline and the first year after implementation ($p<0.001$) and 9% between baseline and the second year after implementation ($p<0.001$). Prescriptions for antipsychotics, anxiolytics, and hypnotics and sedatives decreased ($p<0.001$); antidepressant prescriptions remained stable between baseline and the first year after implementation and increased by 6% between baseline and the second year ($p<0.001$). Reductions in prescriptions of antipsychotics, anxiolytics, and hypnotics and sedatives were consistent across sexes and age groups, whereas antidepressant prescriptions showed greater variability.
Conclusions and clinical implication: This large-scale implementation of the PCBH model was associated with an overall reduction in psychotropic drug prescriptions, particularly for the potentially addictive medications. These findings indicate that integrating PCBH into routine practice may promote more targeted and guideline-aligned treatment strategies.

Does point-of-care ultrasound (POCUS) lead to inappropriate care?

Other
Clinical General Practice
Thomas Løkkegaard[1]
Julie Jepsen Strøm[1], Pernille Gram[1], Janus Laust Thomsen[1], Martin Bach Jensen[1], Camilla Aakjær Andersen[1]
[1] Center for General Practice at Aalborg University

Introduction: While the use of POCUS is increasing in general practice knowledge of the consequences regarding diagnostic precision, appropriateness of subsequent management plans as well as incidental findings and adverse effects is lacking.
Aim: To retrospectively evaluate to what extent 10 selected POCUS examinations contributed to the diagnosis, influenced the patient pathway, resulted in a correct diagnostic conclusion, resulted in an appropriate patient management plan as well as the proportion of incidental findings and adverse events.
Methods: A total of 197 Danish POCUS-using general practitioners (GPs) were asked to retrospectively review medical records of 30 selected patients they had previously examined with POCUS. The patients were identified and randomly selected by the research team. The GPs were asked to complete an online questionnaire for each selected patient based on the information in the electronic medical record from the day of the index consultation, where POCUS was performed, and 3 months onwards. The GPs registered information regarding type of POCUS exam performed, POCUS findings, the diagnostic conclusion and patient management at the index consultations, any repeated imaging and findings, any incidental findings or adverse events. Lastly, a retrospective evaluation of their initial diagnostic conclusion and management plan was made. Data was collected and analyzed by the research team using descriptive statistics.
Results: Registration on more than 4500 patients were received and analyzed. The results will be presented at the congress.
Conclusions and clinical implication: The results will enable decision makers to make informed choices about the feasibility and safety of implementing POCUS in general practice.

General Practitioners and Management Control Through Guidelines: A Qualitative Study of Its Effects on Their Practice

Patient centered care
Clinical General Practice
Jens Lundegård[1]
Åsa Grauman[1], Niklas Juth[1], Linus Johnsson[1]
[1] Uppsala Universitet, Department of Public Health and Caring Sciences, Sweden

Introduction: Over the last decades, there has been an increase in guideline-driven management of general practice. There is a lack of recent studies investigating how this development affects the practice of Swedish general practitioners (GPs).
Aim: The aim is to explore how Swedish GPs relate to management control through guidelines, how it affects their daily practice and work environment, and how they reflect on its consequences.
Methods: We conducted semi-structured interviews with 11 GPs from across Sweden. The interview data were analysed using thematic analysis.
Results: We constructed three themes, each representing a field of tension created by guidelines: (1) Torn between high ambitions and their resulting negative side effects, (2) Guidelines promote measurable over unmeasurable knowledge, and (3) Although autonomy in relation to guidelines is highly valued, there are compelling reasons to submit.

The first theme reflects a broad agreement on the benefits of guidelines, while acknowledging that they increase workload and hinder collaboration in healthcare. The second theme highlights the tension between measurable knowledge promoted by guidelines and the other professional skills that are essential for GPs. The third theme captures how GPs exercise a high degree of autonomy in relation to guidelines, yet occasionally relinquish their clinical discretion.
Conclusions and clinical implication: While management control through guidelines entails many benefits, the participants in this study also reported several adverse effects. Promoting quality by organizing healthcare through increasingly complex guidelines may seem like an obvious approach in a system that focuses strongly on measuring outcomes, but it is also important to recognise its potential side effects.

Penicillin V as first-line treatment of pneumonia in primary care

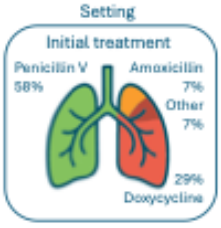
Infections
Clinical General Practice
Olof Cronberg[1, 2]
Mia Tyrstrup[1], Anders Beckman[1], Sara Carlsson[3], Kim Ekblom[4], Anna Moberg[3], Katarina Hedin[3, 5]
[1] Institutionen för kliniska vetenskaper, Malmö, Lunds universitet
[2] Vårdcentralen Växjöhälsan, Växjö
[3] Institutionen för hälsa, medicin och vård, Linköpings universitet
[4] Institutionen för medicinsk biovetenskap - klinisk kemi, Umeå universitet
[5] Futurum, Region Jönköpings län

Introduction: Penicillin V (PcV) is considered the first-line treatment for community-acquired pneumonia in Scandinavian countries, although data supporting this recommendation are scarce.
Aim: The present study aimed to compare PcV and amoxicillin regarding the risk of treatment failure in children aged >5 years and adults with pneumonia in primary care.
Methods: Using data from healthcare registry of four regions in Sweden with 2.3 million inhabitants, we included 34,306 primary care cases of pneumonia from 12 February 2018 to 3 December 2021. Adjusted odds ratios (aORs) and 95% confidence intervals (CIs) for treatment failure days 1–28 (primary composite endpoint: hospitalisation for lower respiratory tract infections [LRTI] or all-cause mortality; secondary endpoint: antibiotic switch) were calculated using logistic regression analysis. A propensity score matched analysis was conducted.
Results: PcV was prescribed in 19,761 cases, amoxicillin in 2363 cases, doxycycline in 9830 cases, and other antibiotics in 2352 cases. Hospitalisation for LRTI or all-cause mortality occurred in 4.9% cases treated with amoxicillin vs. 3.8% cases treated with PcV (aOR 1.07, 95% CI: 0.87–1.32). Antibiotic switch occurred in 8.9% cases treated with amoxicillin vs. 14% cases treated with PcV (aOR 0.58, 95% CI: 0.50-0.67). Similar results were seen in the propensity score matched analyses.
Conclusions and clinical implication: No difference was observed in the risk of hospitalisation for LRTI or all-cause mortality when comparing PcV to amoxicillin as pneumonia treatment. Therefore, PcV can continue to be a first-line treatment option in primary care settings with resistance patterns similar to those in Sweden.

Penicillin V as first-line treatment of pneumonia in primary care

Setting

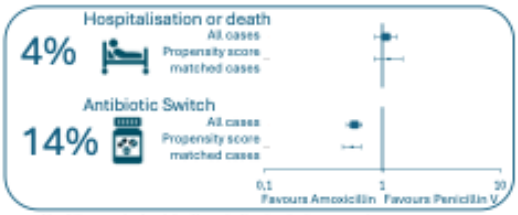
Initial treatment



34,306 pneumonia cases in primary care in South Sweden, 2018-2021

Outcomes

Treatment failures - Penicillin V (ref) compared to Amoxicillin



Conclusions

- No difference in the risk of hospitalisation for lower respiratory tract infection or death when comparing Penicillin V to amoxicillin.
- Antibiotic switches were more common with Penicillin V.
- Other countries with similar resistance pattern may consider adding Penicillin V to their guidelines.

They Never Mentioned This in Medical School! A Qualitative Study of Students' Reflections from General Practice

Undergraduate and postgraduate medical education
Continuous Professional Development (CPD)
Bente Prytz Mjølstad[1]
Linn Okkenhaug Getz[1]
[1] General Practice Research Unit, Department of Public Health and Nursing, Faculty of Medicine and Health Sciences, Norwegian University of Science and Technology, NTNU, Trondheim, Norway

Introduction: Primary care is a key learning arena for medical students, offering exposure to undifferentiated and complex problems that require person-centered approaches. Clinical placements in general practice allow students to engage actively with real-world complexity and develop professional identity. Reflection on challenging encounters is increasingly emphasized to bridge the gap between theory and practice.
Aim: To explore final-year medical students' experiences with thought-provoking and challenging situations during internships in general practice.
Methods: We conducted a qualitative analysis of 90 reflective essays written by one cohort of Norwegian final-year medical students during their general practice internship. Students were asked to reflect on a clinical encounter that had made a strong impression on them. A primary thematic content analysis was performed, followed by a secondary analysis of encounters that stood out as particularly challenging, focusing on clinical scenarios that made students feel professionally 'caught off guard'
Results: Several themes of challenging experiences were identified. One prominent category was "disorienting encounters," where students felt totally unprepared and did not know how to think or act. Five scenarios were identified: (1) patients with highly distracting appearances, (2) ordinary consultations that suddenly took a dramatic turn, (3) unexpectedly confrontational or devaluating patients, (4) scornful rejection of advice, and (5) massive contextual complexity.
Conclusions and clinical implication: Disorienting encounters evoke acute feelings of incapacitation among students in general practice. Curriculum development should include strategies to prepare students for unpredictable situations and support reflective learning to strengthen resilience and professional growth.

Chronic widespread pain and the risk of cardiovascular disease – a systematic review and meta-analysis

Other
Prevention

Ann-Sofie Rönnegård[1, 2]
Tessa Schillemans[3], Björn Äng[1, 2, 4, 5, 6], Katja Boersma[7], Johan Ärnlöv[1, 2, 3], Elena Tseli[1, 4]
[1] Center for Clinical Research Dalarna – Uppsala University, Region Dalarna, Sweden
[2] School of Health and Welfare, Dalarna University, Falun, Sweden
[3] Department of Neurobiology, Care Sciences and Society, Family Medicine and Primary Care Unit, Karolinska Institutet, Huddinge, Sweden
[4] Department of Neurobiology, Care Sciences and Society, Division of physical therapy, Karolinska Institutet, Sweden
[5] Department of Women's and Children's Health; Physiotherapy and behavioral medicine, Uppsala University, Sweden
[6] Department of Physical Education and Sport Science, Biomechanical and Ergonomic Laboratory, University of Thessaly, Trikala, Greece
[7] School of Behavioural, Social and Legal Sciences, Örebro University, Örebro, Sweden

Introduction: Previous research indicates that individuals with chronic widespread pain (CWP) have an excess risk of cardiovascular disease. Given the high global prevalence of CWP, such an association may have substantial public health implications.
Aim: Our objective was to summarise the current evidence on the association between CWP and incident cardiovascular disease in a systematic review and meta-analysis.
Methods: We searched major databases (Medline, Embase, Web of Science and Cochrane) and studies were included after screening against predefined eligibility criteria. We identified 18 studies reporting associations between CWP (n=80 021) and atherosclerotic diseases and/or cardiovascular mortality (n events=33 799). In the meta-analysis we removed studies that analysed identical outcomes in the same population.
Results: Individuals with CWP had an almost doubled risk of atherosclerotic diseases, RR 1.94 (95% CI: 1.56-2.41), and for cardiovascular mortality the RR was 1.61 (95%CI: 1.24 - 2.08) in the minimally adjusted models. In the maximally adjusted models, associations with atherosclerotic disease were attenuated but still significant, whereas for cardiovascular mortality the estimates became unsignificant. The heterogeneity was high and potential publication bias was indicated for the mortality analysis.
Conclusions and clinical implication: This meta-analysis, though based on relatively few studies with high heterogeneity, shows that CWP is consistently associated with incident atherosclerotic disease. Evidence for an association with cardiovascular mortality is less conclusive. Individuals with CWP may represent an underrecognized high-risk group for atherosclerotic diseases that could benefit from more proactive cardiovascular risk assessment and intensified preventive strategies. Further high-quality studies are warranted to confirm the strength and causality of the association.

Artificial Intelligence in Otitis Media Diagnostics: Impact on Accuracy and Practitioner Attitudes

Artificial intelligence and decision support
Digitalization and Technology
Thorbjörn Lundberg[1]
Malin Hedman[1], Fredrik Öhberg[1], Manfred Lindmark[1], Josefin Sandström[1], Jenny Andersson[1], Pär-Daniel Sundvall[2], Karin Rystedt[2], Vezira Kosuta[2]
[1] Umeå Universitet
[2] Göteborgs universitet

Introduction: Otitis media (OM) is a common pediatric condition in primary care, yet diagnostic uncertainty often leads to over-diagnosis and unnecessary antibiotic use. Artificial intelligence (AI) has been proposed to improve diagnostic accuracy, but its clinical impact and acceptance among practitioners remain unclear.
Aim: To assess the effect of AI support on diagnostic accuracy for OM and explore physicians' and medical students' attitudes toward AI in otitis diagnostics.
Methods: Two complementary studies were conducted in Sweden. A diagnostic accuracy study included 259 participants (general practitioners, specialist trainees, and medical students) who classified 21 tympanic membrane images without and with fictitious AI support. Accuracy, confidence, and reliance patterns were analyzed. A qualitative study explored attitudes through four focus group interviews with participants experienced in using the AI tool, analyzed using thematic content analysis.
Results: Overall diagnostic accuracy improved from 64% without AI to 75% with AI ($p < 0.05$), with the largest gains for otitis media with effusion (46% to 66%). Diagnostic confidence also increased. Automation bias was observed among less experienced participants. The qualitative study revealed four themes: clinical decision-making extends beyond eardrum appearance; AI can support decisions but does not replace physician responsibility; trust, reliability, and accessibility are prerequisites; and collaboration with AI will reshape future practice and education. Medical students were generally optimistic, while physicians expressed concerns about professional identity, patient trust, and reduced clinical reasoning.
Conclusions and clinical implication: AI support can enhance diagnostic accuracy and confidence, but successful implementation requires addressing skepticism and providing structured education.

Determinants of Suboptimal Metabolic Risk Factor Control in Type 2 Diabetes: A Comparative Danish Study (2018, 2021)

Obesity and type 2-diabetes
Clinical General Practice

Fereshteh Baygi[1]
Helene Støttrup Andersen[1], Sonja Wehberg[1], Jens Søndergaard[1], Peter Haastrup[1]
[1] Research Unit of General Practice, Department of Public Health, University of Southern Denmark Odense, Denmark

Introduction: Poor control of metabolic risk factors (e.g., glycemia, blood pressure) in patients with T2D significantly increases the risk of disease progression and complications.
Aim: To identify patient factors associated with poorly controlled metabolic risk factors among Danish adults with T2D.
Methods: We used the Danish Adult Diabetes Registry on health indicators linked to national registers. Comorbidities were assessed using the updated Charlson Comorbidity Index (past 10 years diagnoses). Analyses included patients with ≥1-year diabetes duration. Separate logistic regressions examined four outcomes for 2018 and 2021.
Results: We identified 7,524 and 4,445 patients with T2D in 2018 and 2021. Mean age was 67.2 (SD= 10.9) and 62.7 (SD= 11.2) years in 2018 and 2021. At least one poorly controlled measure was observed in 4,069 (54.1%) and 2,237 (50.2%) in 2018 and 2021. Major polypharmacy occurred in 62.9% in 2018 and 51.4% in 2021. Moderate/severe comorbidities were rare (7% in both intervals). In 2018, older patients (≥60) had better control of risk factors than employed middle-aged patients; in 2021, this was significant only among retired individuals. In 2021, 15.4% lacked a blood test in the previous year, strongly linked to at least one poorly controlled risk factor (e.g., HbA1c, systolic BP). Patients ≥60, retired, or with high income had lower odds of poorly controlled HbA1c in 2018, with weaker associations in 2021.
Conclusions and clinical implication: Older and retired patients showed better control of risk factors than employed middle-aged patients. Non-attendance may contribute to poor cardiometabolic control; however, reasons should be further explored.

Management and documentation of pneumonia - a comparison of patients consulting primary care and emergency care

Infections
Clinical General Practice

Louise Arntsberg[1, 2]
Sara Fernberg[3], Ann-Sofie Berger[1], Katarina Hedin[2, 4, 5], Anna Moberg[2, 6]
[1] Hälsan 2 Primary Health Care Centre, Jönköping, Sweden
[2] Department of Health, Medicine and Caring Sciences Linköping University, Linköping, Sweden
[3] Åby Primary Health Care Centre, Åby, Sweden
[4] Futurum, Jönköping, Sweden
[5] Department of Clinical Sciences in Malmö, Family Medicine, Lund University, Malmö, Sweden
[6] Kärna Primary Health Care Centre, Linköping, Sweden

Introduction: Pneumonia is a common infection causing many deaths worldwide. In Sweden, patients can attend both primary care and emergency care without referral. Guidelines recommend a severity assessment to be performed for all patients presenting with pneumonia, which includes assessment of vital signs.
Aim: To compare management and documentation of vital signs, symptoms and infection severity in pneumonia patients seeking primary care and emergency care without referral.
Methods: Retrospective study including 240 medical records of patients with pneumonia in primary care and emergency care. Data including vital signs, examination findings and severity of pneumonia were collected and analysed using Pearson's Chi-squared test and Mann-Whitney U-test.
Results: Respiratory rate, blood pressure, heart rate and oxygen saturation were less often documented in primary care ($p < .001$). Chest X-ray was performed in 5% of primary care patients vs. 88% of emergency care patients ($p < .01$). Primary care patients had longer symptom duration, higher oxygen saturation and lower respiratory rate. In total, the reviewers assessed 63% of all pneumonias as mild and 9% as severe. The traffic light scoring model identified 11 patients (9%) in primary care and 53 patients (44%) in emergency care at high risk of severe infection.
Conclusions and clinical implication: Vital signs were documented less often in primary care than in emergency care. Patients in primary care appear to have a less severe pneumonia, indicating attendance to the correct care level. The traffic light scoring model identified more patients at risk of severe infection than CRB-65, where the parameters were documented to a limited extent.

Exploring adolescent males' consultations with GPs in the context of psychosocial health—Presentation of thesis

Care for children and adolescents
Clinical General Practice
Johanna Haraldsson[1, 2, 3]
Lena Nordgren[2, 4], Ylva Tindberg[2, 5], Ronnie Pingel[6], Per Kristiansson[1]
[1] Dept. of Public Health and Caring Sciences/General practice, Uppsala University, Sweden
[2] Center for Clinical Research Sörmland/Uppsala University, Sweden
[3] Vårdcentralen Strängnäs, Region Sörmland, Sweden
[4] Dept. of Public Health and Caring Sciences/Caring Sciences, Uppsala University, Sweden
[5] Dept. of Women's and Children's Health, Uppsala University, Sweden
[6] Dept. of Statistics, Uppsala University, Sweden

Introduction: Adolescents and general practitioners (GPs) alike report substantial communication challenges during consultations. This is particularly concerning for adolescent males, as they exhibit twice the mortality of their female counterparts. Mortality is primarily associated with poor mental health and health-compromising behaviours—topics that can be hard to discuss, partly due to concerns about parental disclosure.
Aim: The aim of this thesis was to explore adolescent males' encounters with GPs, focusing on their experiences of consultations and their perceptions of confidentiality in relation to poor mental health and health-compromising behaviours.
Methods: A conceptual model illustrating the relationships between poor mental health, somatic symptoms, and health-compromising behaviours was developed. Based on this model, adolescent males' expectations and experiences regarding confidentiality were examined using structural equation modelling.
Nine adolescent males participated in video-recorded consultations, followed by interviews. Interview data were analysed using thematic analysis. Video observations were analysed using a phenomenological-hermeneutic approach.
Results: GPs can improve consultations with adolescent males by offering private time without parents and clearly explaining the meaning of confidentiality. These findings were consistent regardless of poor mental health or health-compromising behaviours. Adolescent males emphasised the need to be listened to, requiring GPs to demonstrate understanding and engagement through words and actions throughout the consultation. The consultations also posed notable cognitive, emotional, and relational challenges for the adolescent males. Their vulnerability, combined with the complexity of the encounter, can be demanding for GPs.
Conclusions and clinical implication: Combining two existing consultation models may better address adolescent males' needs.

As this is a thesis presentation, I kindly request 30 minutes.

Can a Structured Framework for Sick Listing and Rehabilitation Improve Work Environment in Primary Care?

Interprofessional collaboration and team-based care
Health services

Eva-Marie Sundkvist[1, 2]
Julia Mäkitalo[3], Elin Karlsson[2], Inger Jansson[1], Lena Rosenberg[1], Annette Sverker[4], Hanna Israelsson Larsen[2]
[1] School of Health and Welfare, Jönköping University
[2] Department of Health, Medicine, and Caring Sciences, Linköping University
[3] Region Östergötland
[4] Department of Culture and Society, Linköping University

Introduction: The sick listing and rehabilitation process in primary care is complex and stressful for physicians, challenged by time pressure, patients with multifactorial health issues, and administrative demands. Balancing medical care, insurance medicine, and occupational health often leads to role ambiguity and loyalty conflicts. To clarify roles, strengthen rehabilitation coordination, and support return-to-work (RTW), a STructured framework for Assessment of Rehabilitation and Sick listing (STARS) has recently been co-developed by clinicians and researchers in south-east Sweden.
Aim: To explore STARS' impact on healthcare professionals' work environment and practices.
Methods: STARS is a comprehensive framework with seven tools guiding the RTW process. Nine healthcare centers implementing STARS were compared with 25 control centers. Qualitative data were collected via seven focus groups (37 participants), quantitative data via questionnaires (n=108) and healthcare registers. A mixed-methods approach combines quantitative and qualitative analyses.
Results: Preliminary findings suggest STARS may ease sick leave management and foster structured teamwork, with rehabilitation coordinators (RECO) playing a key role. Early indications show RECO experienced increased workload and stress initially, while tendencies point to reduced stress across staff categories over time. Physicians reported signs of relief from administrative burdens, improved focus on clinical tasks, and less role ambiguity. Analyses are ongoing and will be finalized before the conference.
Conclusions and clinical implication: STARS appears to strengthen the organizational, social, and psychosocial work environment by clarifying roles, enhancing interprofessional collaboration, and redistributing tasks. Attention is needed to ensure RECOs' workload and work environment remain sustainable.

Clinical reasoning in sickness certification cases – physicians' perspectives on sustainable assessments in primary care

Other
Clinical General Practice
Cecilia Rosander[1, 2]
Magnus Falk[1, 2], Hanna Israelsson Larsen[1, 3], Elin Karlsson[1]
[1] Department of Health, Medicine and Caring Sciences, Linköping University
[2] Kärna Primary Care Center, Linköping, Sweden
[3] Cityhälsan Centrum Primary Care Center, Norrköping, Sweden

Introduction: Assessing work ability in connection with sickness certification is a complex part of physicians' clinical practice. Previous research has shown substantial variation between physicians, which may influence patients' recovery and contribute to stress and uncertainty among physicians. These challenges raise questions about how general practitioners can be supported and strengthened to perform sustainable and reliable assessments.
Aim: The study aimed to explore physicians' clinical reasoning when assessing reduced work ability and return to work.
Methods: A total of 142 primary care physicians participated in a survey where they assessed six authentic patient cases and described their reasoning for each. In total, 925 responses were analysed using qualitative content analysis.
Results: The analysis resulted in four categories. Assessment of the patient's condition described how medical, functional and social factors were balanced in a complex reasoning process. Sickness certification as a process over time reflected how assessments evolved alongside the patient's recovery. Work demands and conditions illustrated the interaction between individual and work, highlighting the need for workplace adaptations. External resources and support structures emphasised organisational and societal factors and collaboration between healthcare, employers and the Social Insurance Agency.
Conclusions and clinical implication: Physicians' reasoning develops through a complex interaction between medical, social and work-related factors. The results highlight the need for clearer structures, better support resources and shared guidelines that strengthen physicians' confidence and promote a sustainable sickness certification process. The findings are discussed in relation to dual process theory, illustrating how intuitive and analytical processes interact in clinical decision-making.

Adherence to Antibiotic Treatment among Adults in Primary Care – a Cohort Study

Infections
Clinical General Practice
Hanna Utas[1]
Katarina Hedin[2, 3, 4]
[1] Bra Liv Hälsan 1 Primary Health Care Centre, Jönköping, Region Jönköping County, Sweden
[2] Futurum - the Academy for Health and Care, Region Jönköping County, Sweden
[3] Department of Medical and Health Sciences, Linköping University, Linköping, Sweden
[4] Department of Clinical Sciences in Malmö, Lund University, Malmö, Sweden

Introduction: Patient adherence to antibiotic treatment varies widely across countries. Few studies have investigated adherence to prescribed antibiotics in Sweden, and to our knowledge, no previous studies have examined both underuse and overuse.
Aim: To assess adherence to prescribed antibiotic treatment among adults in primary care.
Methods: A prospective cohort study on adults prescribed oral antibiotics for 3–14 days for any infection, at a primary care centre in Sweden. At end of treatment participants responded to a digital questionnaire regarding adherence to the prescribed regimen, reasons for non-adherence and handling of leftover tablets. Adherence was assessed using self-reported data and information extracted from medical records.
Results: Of the 102 completed questionnaires, two participants discontinued treatment due to intolerable adverse effects. Of the remaining 100 participants, 14 were assessed to be non-adherent, of which 8 participants took fewer tablets whereas 6 took more tablets than prescribed. Forgetfulness was the most common reason for underuse. Among participants given an antibiotic packaging containing more tablets than prescribed, almost 16% (n=3) took more tablets than instructed, solely because the packaging included surplus doses. Preliminary data indicate a higher risk of overuse when dosing frequency is reduced.
Conclusions and clinical implication: Adherence to antibiotic treatment was high. However, the findings indicate overuse as a non-negligible cause of non-adherence. Better adopted package sizes may be warranted to minimise the risk of overuse. Continued investigation into non-adherence, especially the underexplored issue of overuse, is essential to guide safe and effective antibiotic use.

Effectiveness of a structured communication tool in patients with medically unexplained physical symptoms i primary care

Musculoskeletal
Clinical General Practice
Cathrine Abrahamsen[1]
Erik Lønnmark Werner[1], Silje Endresen Endresen[2], Knut Reidar Wangen[3], Morten Lindbæk[1]
[1] Faculty of Medicine, Department of General Practice, University of Oslo, Oslo, Norway
[2] Faculty of Social Sciences, Department of Psychology, University of Oslo, Norway
[3] Faculty of Medicine, Department of Health Management and Health Economics, University of Oslo, Oslo, Norway

Introduction: Medically Unexplained Physical Symptoms (MUPS) are common in primary care, often result in reduced functioning, impaired quality of life, substantial healthcare and societal costs. Many patients struggle to maintain work participation, highlighting the need for effective interventions that address function and work ability.
Aim: We aimed to evaluate a work-focused structured cognitive-behavioral communication approach designed for use in primary care.
Methods: We conducted a Norwegian two-arm cluster randomized controlled trial to assess the effectiveness of the Individual Challenge Inventory Tool (ICIT) compared with usual care. Ten clusters consisting of 103 General Practitioners (GPs) were randomized to provide either ICIT or usual care over an 11-week period. All outcomes were assessed at the patient level. The primary outcome was overall self-rated change in function, symptoms, and quality of life using the Patient Global Impression of Change (PGIC). Secondary outcomes included changes in sick leave, work-related self-efficacy (RTW-SE), health-related quality of life (RAND-36), and patient experiences with the consultation (PEQ).
Results: Between March 7 and April 1, 2022, 541 patients with MUPS were enrolled. In the intervention group, 76% (n=223) reported significant overall improvement on PGIC compared with 38% (n=236) in the usual care group (mean difference 0.8 [95% CI 2.7–3.0]; p=0.000). Sick leave decreased by 27 percentage points in the intervention group (52.0–25.2) versus 4 percentage points in usual care (49.7–45.7), giving an intervention effect of −24 percentage points [95% CI −30.2 to −17.0]. No adverse events were reported.
Conclusions and clinical implication: Implementation of ICIT led to improved health and reduced sick leave among individuals with MUPS.

No association between continuity of primary healthcare, asthma control or asthma-related quality of life

Continuity of care
Clinical General Practice

Lovisa Järnberg[1]
Björn Ställberg[2], Hanna Sandelowsky[1], Maaike Giezeman[3], Therese Öfverholm[4], Christer Janson[5], Gabriella Eliason[6], Josefin Sundh[6], Karin Lisspers[2], Marta Kisiel[7], Mikael Karlsson[8], Scott Montgomery[9], Anna Nager[1]
[1] Department of Neurobiology, Care Sciences and Society, Division of Family Medicine and Primary Care, Karolinska Institutet, Stockholm, Sweden
[2] Department of Public Health and Caring Sciences, General Practice, Uppsala University, Uppsala, Sweden
[3] School of Medical Sciences, Faculty of Medicine and Health, Örebro University, Örebro, Sweden; Centre for Clinical research, Region Värmland, Sweden
[4] Department of Neurobiology, Care Sciences and Society, Division of Family Medicine and Primary Care, Karolinska Institutet, Stockholm, Sweden; Academic Primary Care Centre, Region Stockholm, Sweden
[5] Department of Medical Sciences; Respiratory, Allergy and Sleep Research, Uppsala University, Uppsala, Sweden
[6] Department of Respiratory Medicine, Faculty of Medicine and Health, Örebro University, Örebro, Sweden
[7] Department of Medical Sciences; Occupational and Environmental Medicine, Uppsala University, Uppsala, Sweden
[8] Department of Medicine, Lindesberg Hospital, Region Örebro County, Örebro Sweden. Faculty of Medicine and Health, Örebro University, Örebro Sweden
[9] Clinical Epidemiology and Biostatistics, School of Medical Sciences, Faculty of Medicine and Health, Örebro University, Örebro, Sweden

Introduction: Continuity of care (COC) is linked to lower mortality and reduced healthcare costs in patients with chronic diseases. However, evidence on its association with symptom burden or disease-related quality of life in asthma is limited. Increasing asthma rates and decreasing COC in Sweden highlight the importance of studying this association.
Aim: To examine the impact of COC on asthma control and asthma-related quality of life in primary care patients with asthma.
Methods: A cross-sectional study was conducted among randomly selected patients from 54 primary health care centres in Sweden with a doctor's diagnosis of asthma. Two COC parameters were used: (objective) a COC index (COCI), based on visits and telephone calls to general practitioners over four years, and (subjective) patient awareness of the responsible doctor for asthma treatment. Outcomes included levels of asthma control and asthma-related quality of life, both retrieved from patient-reported questionnaires.
Results: In 565 patients with asthma (65.5 % female), no statistically significant associations were found between the COCI and asthma control or asthma-related quality of life. A statistically significant association was observed between patient awareness of the assigned doctor for asthma

treatment and poor asthma control (crude OR = 1.75, 95% CI: 1.23–2.51). This association was not significant after adjustment (OR = 0.68, 95% CI: 0.46–1.01).
Conclusions and clinical implication: No association was observed between COC and asthma control or asthma-related quality of life in primary healthcare. The results may have been affected by the generally low COC and infrequent contact with doctors regarding asthma.

Effectiveness of several short-course antibiotics in women with bacteriological confirmation of urinary tract infection

Infections
Clinical General Practice

Carl Llor[1, 2, 3]
Ana Moragas[2, 3, 4], Alfonso Leiva[5], Jaime Marín-Cañada[6], María Antonia Sánchez-Calavera[7], Dan Ouchi[2], Ana García-Sangenís[2, 3], Rosa Morros[2, 3], Ramon Monfà[2]
[1] Research Unit for General Practice, Department of Public Health, University of Southern Denmark
[2] Fundació Institut Universitari per a la Recerca a l'Atenció Primària de Salut Jordi Gol
[3] CIBER de Enfermedades Infecciosas, Instituto de Salud Carlos III
[4] Jaume I Health Centre, University Rovira i Virgili
[5] Research Network on Chronicity Primary Care, and Health Promotion (RICAPPS) - Balearic Islands Health Research Institute (IdISBa)
[6] Villarejo de Salvanés Health Centre, Network for Research on Chronicity, Primary Care, and Health Promotion (RICAPPS) - Research Unit, Primary Care Management, Madrid Health Service
[7] Aragonese Health Service, University of Zaragoza

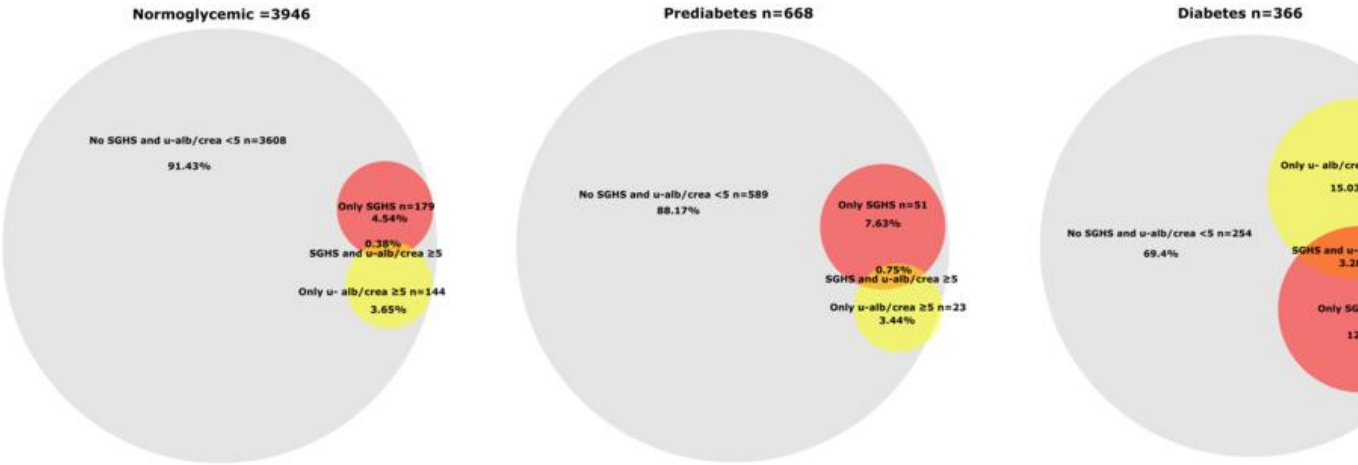
Introduction: Most clinical guidelines consider pivmecillinam, nitrofurantoin, and fosfomycin as first-line treatments for uncomplicated urinary tract infections (UTIs), yet direct comparisons between these agents remain limited.
Aim: We conducted a randomised clinical trial assessing four short-course antibiotic regimens in women with symptoms of uncomplicated UTI. Full results will be presented at the conference; this abstract reports outcomes among participants with a confirmed positive urine culture.
Methods: A phase IV, pragmatic, multicentre, parallel-group, open-label randomised clinical trial was conducted in Spanish primary care centres from 2022 to 2024. Women aged ≥18 years with typical UTI symptoms—dysuria, urgency, frequency, or suprapubic pain—and a positive urine dipstick (nitrites or leukocyte esterase) were randomised to one of four treatments: a single 3-g dose of fosfomycin, two 3-g doses of fosfomycin, nitrofurantoin 100 mg three times daily for 5 days, or pivmecillinam 400 mg three times daily for 3 days. The primary endpoint was clinical cure at day seven.
Results: Among 768 women, 57% had a uropathogen. Culture positivity was 58.3% with single-dose fosfomycin, 55.1% with two-dose, 49.7% with nitrofurantoin, and 65% with pivmecillinam. By day seven, all short-course regimens outperformed single-dose fosfomycin in clinical cure: nitrofurantoin by 34.9%, pivmecillinam by 22%, and two-dose fosfomycin by 13.7%.
Conclusions and clinical implication: Mainly nitrofurantoin, and to a lesser extent pivmecillinam, showed the greatest effectiveness, while fosfomycin was the least effective. These findings suggest that fosfomycin, primarily given as single-dose, should no longer be considered as first-line treatment. Future studies should evaluate the benefit of shorter treatment durations with nitrofurantoin.

Kidney disease, arterial stiffness and coronary atherosclerosis in the general population

Cardiovascular
Clinical General Practice
Susanna Strömberg[1]
John Cederqvist[1], Maria Weiner[1, 2], Andreas Stomby[1, 3], Carl Johan Östgren[1, 4]
[1] Department of Health, Medicine and Caring Sciences, Linköping University, Linköping, Sweden.
[2] Department of Clinical Nephrology, Region Östergötland, Linköping, Sweden
[3] Råslätts vårdcentral, Region Jönköping County, Jönköping, Sweden
[4] Centre of Medical Image Science and Visualization (CMIV), Linköping University, Linköping, Sweden

Introduction: Kidney disease, characterised by loss of kidney function and albuminuria, is an established independent cardiovascular risk factor. Selective glomerular hypofiltration syndrome (SGHS) has recently been identified as an additional risk factor for cardiovascular disease and mortality.
Aim: To study the relationship between microalbuminuria and SGHS across different stages of dysglycaemia and their respective associations with vascular damage in two vascular beds, coronary atherosclerosis and aortic arterial stiffness.
Methods: This cross-sectional study used data from the Swedish CardioPulmonary bioImage Study (SCAPIS), including 5,056 participants aged 50–64 years. Microalbuminuria was defined as urine albumin-creatinine ratio ≥5 g/mol, and SGHS as $eGFR_{cystatine}$ /$eGFR_{creatinine}$ ratio <0.7. Aortic stiffness was assessed by pulse wave velocity (PWV >10 m/s). Coronary computed tomography angiography (CCTA) was used to determine atherosclerosis, with Segment Involvement Score (SIS >4) and Coronary Artery Calcium Score (CACS >100) as markers.
Results: In normoglycaemic individuals, SGHS and microalbuminuria were uncommon (4.9% and 4.0%, respectively), with minimal overlap (0.4%). Prevalence increased with dysglycaemia but overlap remained low. SGHS was associated with CACS >100 (OR 1.66, p<0.001) and PWV >10 (OR 1.75, p<0.002), while microalbuminuria was associated with CACS >100 (OR 1.84, p<0.001), SIS >4 (OR 2.4, p<0.001), and PWV >10 (OR 2.3, p<0.001). All models were adjusted for age and sex.
Conclusions and clinical implication: SGHS and microalbuminuria show minimal overlap across glycaemic strata, indicating potentially distinct pathways of kidney injury. Both markers demonstrate independent associations with vascular damage, highlighting their complementary roles as indicators of cardiovascular risk in the general population.

Prevalence of SGHS and u-albumine/creatinine ≥5g/mol



Respiratory Infections in Preschool Children: Factors Influencing Parents' Decisions on When to Seek Medical Attention.

Infections
Clinical General Practice
Therese Renaa[1, 2]
Bent Håkan Lindberg[2, 3], Guro Haugen Fossum[1, 2]
[1] Department of General Practice, University of Oslo, Norway
[2] The Antibiotic Center for Primary Care, University of Oslo, Norway
[3] NKLM/NORCE: National Centre for Emergency Primary Health Care, NORCE Norwegian Research Centre AS, Bergen, Norway

Introduction: There was a significant reduction in antibiotic prescriptions in Norway from 2012 to 2019. Preschool children with respiratory tract infection (RTI) are still frequently prescribed antibiotics. In a registry study we found that the reduction in antibiotic prescriptions corresponds with a reduction in primary healthcare visits, indicating a change in health care seeking behavior among the parents of preschool children with RTI. A better understanding of the reasons for this change will provide important insight and help target campaigns to increase health literacy and antibiotic stewardship.
Aim: To understand parents' decisions to seek a doctor when their child is ill with a respiratory infection, their expectations to the consultation and treatment and the parents´ thoughts of and attitudes to antibiotics.
Methods: Ongoing qualitative study based on individual interviews with parents of preschool children with RTI. We recruit parents who recently brought their child with an RTI to their list-holding GP. We perform semi-structured interviews following an interview guide that covers three main themes:

1. Factors that influence the decision to contact a doctor.
2. The parents' expectations to the consultation and treatment.
3. Beliefs and attitudes relating to possible antibiotic prescriptions.

The interviews are analyzed thematically ad modum Braun and Clarke.
Results: Results are pending and preliminary results will be presented at the conference.
Conclusions and clinical implication: We hope to gain knowledge on factors that impacts parents' health care seeking behavior. This will give insight on how to improve health literacy among parents and increase public awareness on antibiotic consumption.

Sustainable hypertension management in primary health care

Sustainable healthcare practices
Environmental Health and Sustainability
Miriam Pikkemaat[1, 2]
Louise Axelsson[1, 2], Peter Nymberg[1, 2], Peter Nilsson[3], Ulrika Andersson[1, 2], Patrik Midlöv[1, 2]
[1] Center for Primary Health Care Research, Department of Clinical Sciences Malmö, Lund University, Malmö, Sweden
[2] Center for Primary Health Care Research, Department of Clinical Sciences Malmö, Lund University, Malmö, Sweden
[3] Department of Clinical Sciences Malmö, Lund University, Malmö, Sweden

Introduction: Hypertension represents a major challenge in Swedish primary care, with increasing patient numbers, limited resources, and relatively poor blood pressure (BP) control. Sustainable, patient-centred, and team-based care models are needed to improve health outcomes and resource efficiency.
Aim: The SHIP-CARE (*Sustainable Hypertension Management in Primary Health Care*) project evaluates a new model for hypertension management in primary care.
Methods: Building on an ongoing pilot at two primary health care centres (PHCCs), the project will expand into a cluster-randomised trial across Sweden. Adults with hypertension will be followed for two years. The intervention includes targeted education and a structured treatment protocol for professionals. Patients receive group-based education, a home BP monitor, and maintain digital contact with a nurse for medication adjustments and follow-up. Nurses consult physicians as needed, with annual physician visits reserved for high-risk patients. Control PHCCs provide usual care. Outcomes include BP control, changes in BP and risk markers, patient and staff satisfaction, and healthcare costs. A qualitative evaluation will explore feasibility, barriers, and facilitators.
Results: In the pilot, 106 patients (mean age 68; 48% women) are followed for six months and 57% classified as high cardiovascular risk. Among the 80 patients who until now completed the intervention, mean BP declined from 137/82 to 129/78 mmHg ($p < 0.001$), and the proportion achieving BP <140/90 mmHg increased from 49% to 76% ($p = 0.001$).
Conclusions and clinical implication: The intervention appears to lower BP and improve target attainment, suggesting potential benefits for cardiovascular risk management and healthcare workflow.

Do Child Health Service Visits Reflect Sociodemographic Needs? An Analysis of the Care Need Index

Access to care and service delivery
Health Equity

Mattias Wennergren[1, 2, 3]
Anna Fäldt[4], Anna Grimby Ekman[5], Rajna Knez[6, 7, 8], Sofia Dalemo[1, 2]
[1] General Practice / Family Medicine, School of Public Health and Community Medicine, Institute of Medicine, Sahlgrenska Academy, University of Gothenburg, Gothenburg, Sweden
[2] Research, Education, Development & Innovation, Primary Health Care, Region Västra Götaland, Sweden
[3] Department of Child Health Services, Region Västra Götaland, Göteborg, Sweden
[4] Child Health and Parenting (CHAP), Department of Public Health and Caring Sciences, Uppsala University, Uppsala, Sweden
[5] School of Public Health and Community Medicine, Institute of Medicine, Sahlgrenska Academy, University of Gothenburg, Gothenburg, Sweden
[6] Gillbergcentrum, Institute of Neuroscience and Physiology, Sahlgrenska Academy, University of Gothenburg, Göteborg, Sweden
[7] Child and Adolescent Medicine, Child and Adolescent Psychiatry and Women's Health, Skaraborg Hospital, Skövde, Sweden
[8] School of Health Sciences, University of Skövde, Sweden

Introduction: Child Health Services provide universal preventive healthcare to all children under six, regardless of the family's sociodemographic background. In line with the principle of proportionate universalism services should be adjusted to family needs and circumstances, and resources are partly allocated using a sociodemographic deprivation index called the Child Adjusted Care Need Index. However, it remains unclear whether primary care centres with higher proportions of children with sociodemographic deprivation deliver more services.
Aim: This study investigates whether number of visits within Child Health Services are associated with sociodemographic health-related risk factors.
Methods: In this cross-sectional study, data from 458,981 children were included from the Swedish Child Health Services Register. Data on sociodemographic background, Child Adjusted Care Need Index and number of visits in 2022 were extracted. All variables were grouped by centre and robust linear regression was used to investigate the relationship between sociodemographic risk factors and visits.
Results: The Child Adjusted Care Need Index was not significantly associated with the average number of visits ($p = 0.701$, $R^2 < 0.01$). None of the variables that the index includes were significantly associated either. Categorizing the index into quartiles did not enhance this association ($p = 0.754$, $R^2 < 0.01$).
Conclusions and clinical implication: Findings indicate that there is no association between Child Adjusted Care Need Index and the average number of visits in the Child Health Services, suggesting that healthcare utilization does not vary by sociodemographic context. Whether this reflects resource allocation or not remains unclear. Future research should include data on resource allocation to enable such analyses.

Awaking from the moral anaesthetic of quantification: An ethnography of building AI applications for general practice

Ethical and practical challenges of digitalization
Digitalization and Technology
Duncan Reynolds[1]
Megan Clinch[1], **Deborah Swinglehurst**[1]
[1] Queen Mary, University of London

Introduction: In general practice, complex moral considerations, such as how to prioritise care for patients with multiple competing needs, can become easily obscured when decision-making is inscribed into bureaucratic, technical, or algorithmic processes. This is a phenomenon Robinson (2022) calls "quantification as a moral anaesthetic". We examine how this process unfolded during the development of AI-enabled applications for care of people with multiple long-term conditions.
Aim: To analyse how an interdisciplinary team recognised, negotiated, and tempered their reliance on quantitative thresholds when developing AI-enabled applications for general practice.
Methods: We conducted an ethnographic study of an interdisciplinary group including GPs, computer scientists, patients, and others working on developing AI applications and methodologies. Data comprised over 225 hours of observations, documents, and interviews, analysed reflexively with attention to how moral questions were recast as technical problems.
Results: Prevalence thresholds were initially used to decide which conditions to include in the dataset used to train and validate the algorithm. Concerns that these cut-offs could deepen existing social, and racial inequalities led the team to question their commitment to quantification. Over time, prevalence thresholds were abandoned in favour of interdisciplinary discussions that explicitly weighed ethical, clinical, and experiential considerations.
Conclusions and clinical implication: Our findings show how quantification can silence ethical questions in AI design, but also how teams can 'awaken' from this moral anaesthetic by 'care-fully' reconfiguring decision-making processes. Consensus-based deliberation may support more equitable AI tools in general practice, while making visible the difficult moral choices that numerical thresholds can obscure.

Adherence to sore throat guidelines by locum vs permanent physicians - a retrospective chart review in primary care

Multimorbidity and complex care needs
Clinical General Practice

David Tell[1, 2, 3]
Anna Moberg[2, 3, 4], Jon Pallon[5, 6, 7], Katarina Hedin[1, 2, 3, 8]
[1] Region Jönköping
[2] Linköping University
[3] Department of Health, Medicine and Caring Sciences
[4] Region Östergötland
[5] Region Kronoberg
[6] Lund University
[7] Department of Clinical Sciences, Malmö, Family Medicine and Community Medicine
[8] Futurum, Region Jönköping County, Jönköping, Sweden

Introduction: Register-based studies have demonstrated that locum physicians exhibit lower adherence to respiratory tract infection guidelines compared to permanent physicians. These studies lack medical record-based information that could provide important insights into clinical management and guideline adherence.
Aim: To investigate adherence to guidelines and the role of employment type on the management of sore throat in primary care.
Methods: Between January and December 2022, publicly run primary care centres in Region Jönköping County employing both permanent and locum physicians were included. Each month, the first three visits by patients aged ≥6 years diagnosed with sore throat were reviewed. Data collected included Centor Score (CS), use of Rapid Antigen Detection Test (RADT) for group A streptococci, C-reactive protein (CRP), antibiotic prescription, and physician employment.
Results: Among the 385 reviewed visits, locums prescribed antibiotics without prior RADT in 17% of cases, compared with 7% among permanent physicians ($p<0.001$). In patients with 0–2 CS, locums used RADT in 65% of cases vs 45% by permanent physicians ($p = 0.002$). When negative RADT ($n = 161$), locums prescribed antibiotics more often (35% vs 14%, $p=0.003$). Locums used CRP more frequently (39%) than permanent physicians (24%) ($p=0.001$).
Conclusions and clinical implication: Management of sore throat in primary care often deviate from guidelines, resulting in unnecessary testing and antibiotic overuse. Locums deviate more than permanent physicians. Clear guidelines for sore throat management already exist, but greater efforts in antibiotic stewardship are needed.

Physician-related factors influencing single-item patient enablement results in Finnish primary care

Lifelong learning and CPD strategies
Continuous Professional Development (CPD)

Ida Tiihonen[1, 2, 3]
Tuomas Koskela[1, 3], Aapo Tahkola[2, 4], Elina Tolvanen[1, 3]
[1] Tampere Universities, Faculty of medicine and Health technology, Tampere, Finland
[2] Wellbeing Services County of Central Finland, Finland
[3] Wellbeing Services County of Pirkanmaa, Finland
[4] Finnish Institute for Health and Welfare, Finland

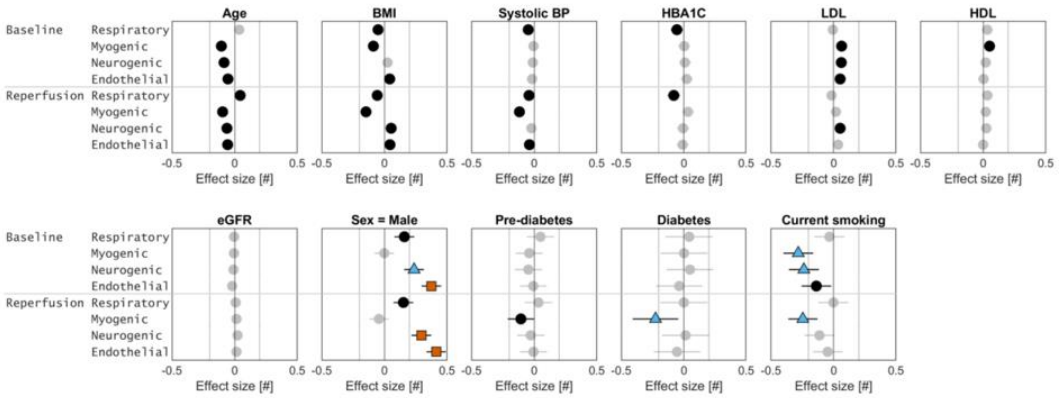
Introduction: In Finland, the collection of patient feedback with patient reported outcome measures (PROMs), such as single-item Patient Enablement Instrument (PEI-Q2), is recommended as means of evaluating the quality of care. However, data collected through these instruments tends to remain at the administrative level. At the same time, Finnish GPs usually do not receive systematic feedback on their work. There is a recognized need in healthcare for practical measures that professionals can both comprehend and influence.
Aim: To study GP-related, influenceable factors associating with PEI-Q2 outcome.
Methods: Anonymous patient surveys were administered following non-urgent consultations with 20 physicians in Central Finland between March 2023 and June 2023.
Results: 534 patient surveys were collected. Higher patient enablement with PEI-Q2 was observed when the consultation began on time ($p = 0.025$), when the physician actively listened ($p = 0.005$), when patients were able to express their concerns and fears ($p < 0.001$), when they had an opportunity to participate in treatment decisions ($p < 0.001$), and when the follow-up plan was understandable ($p < 0.001$). Higher enablement was also associated with physicians' longer professional experience and with higher patient satisfaction with the consultation.
Conclusions and clinical implication: This was the first study to examine the outcomes of the single-item PEI-Q2. The results are in line with the factors associating with the full PEI measure. The findings support the potential use of PEI-Q2 as a tool for providing feedback to individual practitioners.

Cardiovascular risk factors are associated with microvascular flowmotion in a large Swedish cohort study

Cardiovascular
Clinical General Practice

Freya Richter[1]
Martin Hultman[2, 3], Bertil Wegmann[4], Marcus Larsson[2], Carl-Johan Östgren[1, 5], Sara Bergstrand[1], Ingemar Fredriksson[2, 3], Tomas Strömberg[2], Fredrik Iredahl[1]
[1] Department of Health, Medicine and Caring Sciences, Linköping University, Sweden
[2] Department of Biomedical Engineering, Linköping University, Sweden
[3] Perimed AB, Datavägen 9A, Järfälla, Stockholm, Sweden
[4] Department of Computer and Information Science, Linköping University, Sweden
[5] Centre of Medical Image Science and Visualization (CMIV), Linköping University, Sweden

Introduction: Microcirculation is the blood flow in the smallest blood vessels. Oscillations in vessel diameter cause variations in microcirculation, called flowmotion. Through frequency analysis flowmotion can be divided into different intervals representing myogenic, endothelial and neurogenic activity.
Aim: To investigate the association between cardiovascular risk factors (CVRFs) and cutaneous flowmotion.
Methods: This was a local add-on study of the Swedish CArdioPulmonary bioImage Study (SCAPIS), a cohort study of individuals age 50-64 years old. Microcirculation was measured on the forearm of 3809 individuals during a 5-minute baseline period, a 5-minute occlusion and 10 minutes reperfusion period using a fiber optic probe integrating laser Doppler flowmetry and diffuse reflectance spectroscopy. Flowmotion was analysed using wavelets. Bayesian multivariate multiple linear regression was used to investigate associations between CVRFs and flowmotion.
Results: Data from 3050 individuals were included. CVRFs were age, BMI, systolic blood pressure, HbA1C, LDL, HDL, eGFR, sex, pre-diabetes, diabetes, and current smoking. The largest associations (mean standardized effect size) were seen for sex, diabetes and smoking. Male sex was associated with increased neurogenic and endothelial flowmotion during baseline ($\beta_{Neuro} = 0.24$, $\beta_{Endo} = 0.37$) and reperfusion ($\beta_{Neuro} = 0.29$, $\beta_{Endo} = 0.41$). Diabetes was associated with decreased myogenic flowmotion during reperfusion ($\beta_{Myo} = -0.23$). Current smoking was associated with decreased myogenic and neurogenic flowmotion during baseline ($\beta_{Myo} = -0.28$, $\beta_{Neuro} = -0.24$) and decreased myogenic flowmotion during reperfusion ($\beta_{Myo} = -0.25$).
Conclusions and clinical implication: CVRFs are associated with microvascular flowmotion. Understanding how microcirculation is affected by CVRFs is important as microvascular dysfunction contributes to the development of cardiovascular disease of which microvascular complications are common consequences.



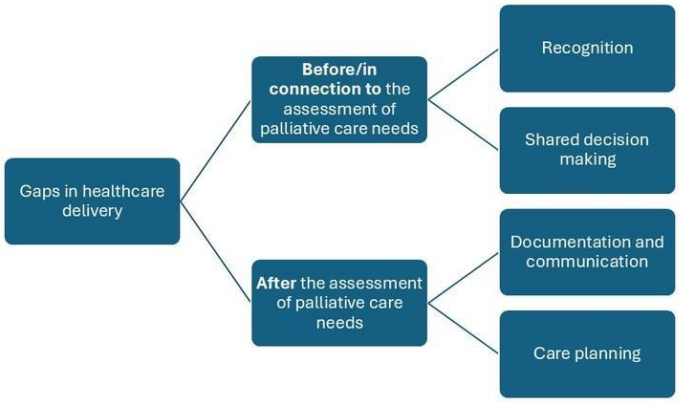
Results from the multivariate regression model. Marker = most likely value. Bars – 95% credible interval (CI). Grey bar and marker – CI contains 0, Black bar – CI does not contain zero. Black circle – effect size most likely <0.2, blue triangle – effect size most likely >0.2, red square – smallest value in CI >0.2. BP – blood pressure.

Primary care's role in reducing emergency department use among frail older adults with palliative needs – a survey

Other
Health services
Hanna Bring[1, 2]
Monica Bergqvist[2, 3], Karin Modig[4], Pia Bastholm-Rahmner[1, 2], **Katharina Schmidt-Mende**[1, 2]
[1] Karolinska Institutet, Department of Neurobiology, Care Sciences and Society, Division of Family Medicine and Primary Care, Sweden
[2] Academic Primary Health Care Center, Stockholm, Sweden
[3] Karolinska Institutet, Department of Neurobiology, Care Sciences and Society, Division of Nursing, Sweden
[4] Karolinska Institutet, Institute of Environmental Medicine, Unit of epidemiology, Sweden

Introduction: Most frail older adults with palliative care needs prefer to spend their final days at home. Nevertheless, emergency department (ED) visits remain common, despite rarely meeting patient needs or supporting a dignified death. As ageing in place is a key policy goal and primary care (PC) is envisioned as a central provider, it is essential to understand how palliative care delivery at home can be strengthened.
Aim: To examine gaps in healthcare delivery that drive ED use among frail older adults with palliative care needs, with particular focus on shortcomings within PC.
Methods: A survey with open-ended questions on reasons for ED visits among older adults with multiple long-term conditions was completed by 100 healthcare professionals from six healthcare providers in Region Stockholm: PC, ED, geriatrics, ambulance services, home healthcare (office/on-call), and advanced home healthcare. Data were analyzed using qualitative content analysis.
Results: Two themes described gaps either before/in connection to, or after, the assessment of palliative care needs: (1) delayed recognition of palliative needs and insufficient shared decision-making, and (2) shortcomings in documenting treatment decisions, communicating them across providers, and conducting adequate care planning.
Conclusions and clinical implication: PC plays a crucial role in supporting frail older adults to die comfortably at home. However, staff need to strengthen their ability to identify palliative care needs earlier. Additional education - potentially in collaboration with palliative medicine - may support this. Moreover, shared decision-making with patients and family members should be prioritized to reduce avoidable ED visits and improve end-of-life care.

***Figure 1**: Gaps in healthcare delivery driving ED use among frail older adults with palliative care needs*

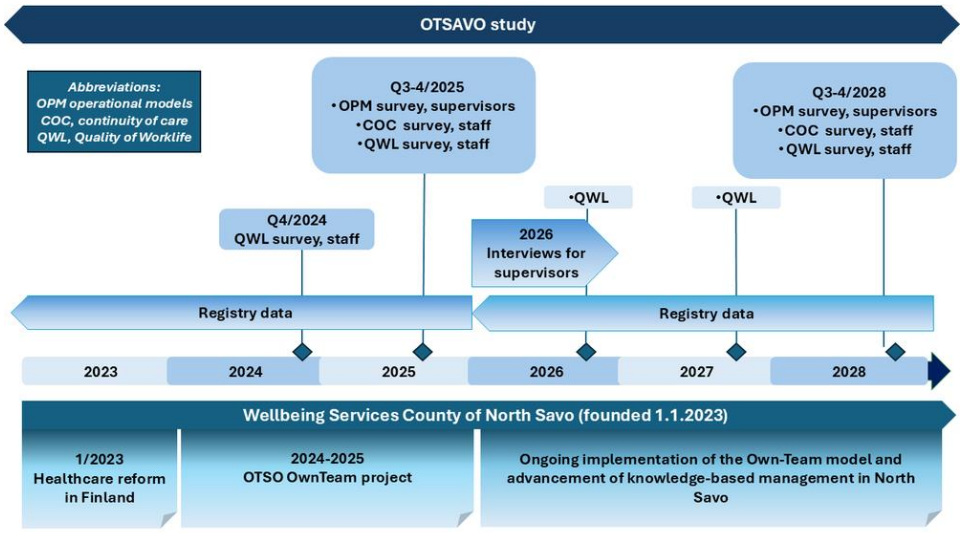


Evaluating Own-Team Model in North Savo: Continuity of Care, Accessibility, and Outcomes in Finnish Primary Health Care

Continuity of care
Clinical General Practice

Hanna Välitalo[1, 2]
Sanna Ranta-Pere[1, 2], Henna Saari[1, 3], Pekka Mäntyselkä[1, 3], Sonja Soininen[1, 3]
[1] Institute of Public Health and Clinical Nutrition, University of Eastern Finland, Kuopio, Finland
[2] Physician and Nursing Services, Health and Social Services Centre, Wellbeing Services County of North Savo, Kuopio, Finland
[3] Teaching Clinic Osmo, Wellbeing Services County of North Savo, Kuopio, Finland.

Introduction: Better continuity of care improves health outcomes and efficiency, but despite strong evidence, it has decreased in Finland. Following the 2023 healthcare reform, national objectives emphasize strengthening basic services and improving accessibility and continuity. The Ministry of Social Affairs and Health introduced the Personal Doctor Model 2.0, focusing on long-term patient-doctor relationships supported by a personal nurse and a multidisciplinary team, and the Personal Doctor Program was launched in 2024. Wellbeing services counties have developed various models to meet these goals with limited resources, making research on operational models essential. From 2025, the Wellbeing Services County of North Savo (PSHVA) implements the Own-Team model, which supports care through a personal doctor or Own-Team doctor, a personal nurse, and a multidisciplinary team.
Aim: To evaluate whether the Own-Team model improves continuity of care, and its association with patient outcomes, accessibility, and professionals' work-life quality, and links to effectiveness of primary health care in PSHVA.
Methods: A mixed-methods design includes staff and supervisor surveys, interviews, client feedback, and registry data from electronic health records, the data lake, and other PSHVA databases, with baseline in 2025 and follow-up in 2028 (Figure).
Results: Baseline data collection is ongoing (December 2025). Questionnaires and part of the registry data will be analyzed in Q1–Q2/2026, and preliminary findings presented at NCGP in May 2026.
Conclusions and clinical implication: This study will provide evidence on the effectiveness of team-based continuity models in primary care. Findings may inform scalable strategies to improve patient-centered care, accessibility, and workforce sustainability.


OTSAVO study
Abbreviations:
OPM operational models
COC, continuity of care
QWL, Quality of Worklife
Q3-4/2025
•OPM survey, supervisors
•COC survey, staff
•QWL survey, staff
Q3-4/2028
•OPM survey, supervisors
•COC survey, staff
•QWL survey, staff
•QWL
•QWL
Q4/2024
QWL survey, staff
2026
Interviews for
supervisors
Registry data
Registry data
2023
2024
2025
2026
2027
2028
Wellbeing Services County of North Savo (founded 1.1.2023)
1/2023
Healthcare reform
in Finland
2024-2025
OTSO OwnTeam project
Ongoing implementation of the Own-Team model and
advancement of knowledge-based management in North
Savo

Health Literacy and Healthcare Seeking with Colorectal Cancer Symptoms – A Cross Sectional Study

Social and structural determinants of health
Health Equity

Camilla Jøhnk[1]
Dorte Ejg Jarbøl[1], Lisa Maria Sele Sætre[1], Rasmus Krøijer[2, 3], Maria Munch Storsveen[1], Sonja Wehberg[1], Peter Haastrup[1]
[1] Research Unit of General Practice, Department of Public Health, University of Southern Denmark, Odense, Denmark
[2] Faculty of Health Sciences, University of Southern Denmark, Denmark
[3] Department of Surgical Gastroenterology, Hospital Southwest Jutland, Region of Southern Denmark, Denmark

Introduction: Timely healthcare seeking with colorectal cancer (CRC) symptoms is crucial for optimal treatment. Health literacy (HL) challenges are linked to adverse outcomes, and variations in HL may explain differences in healthcare-seeking behavior in individuals with CRC symptoms.
Aim: We examined HL distribution across sociodemographic groups among individuals reporting CRC symptoms and explored whether different HL-domains were associated with contacting the general practitioner (GP).
Methods: A nationwide survey from 2022 comprising 100,000 randomly selected adults. Four CRC symptom categories, GP contact, and four HL-domains were analyzed by descriptive statistics and logistic regression. The HL-domains included 'feeling understood and supported by healthcare providers', 'having sufficient information about health', 'having social support for health', and 'being able to actively engage with healthcare providers'.
Results: Individuals who felt understood and supported were more likely to contact their GP with any of the CRC symptoms, while individuals who had sufficient information about health were less likely to do so. Social support and ability to actively engage increased the likelihood of contacting the GP with rectal bleeding and weight loss but decreased the likelihood for abdominal pain and changed bowel habits. Further results from ongoing analyses will be presented at NCGP2026.
Conclusions and clinical implication: Identifying populations with HL challenges is important for developing strategies that promote timely healthcare-seeking behavior. These findings can support GPs and other healthcare providers in tailoring health information to patients' abilities and ensure effective communication. Moreover, organizations can adapt to the diversity of HL-levels, making healthcare more accessible for all.

Provider continuity in Danish general practice during the cancer diagnostic pathway and one-year mortality risk

Continuity of care
Clinical General Practice

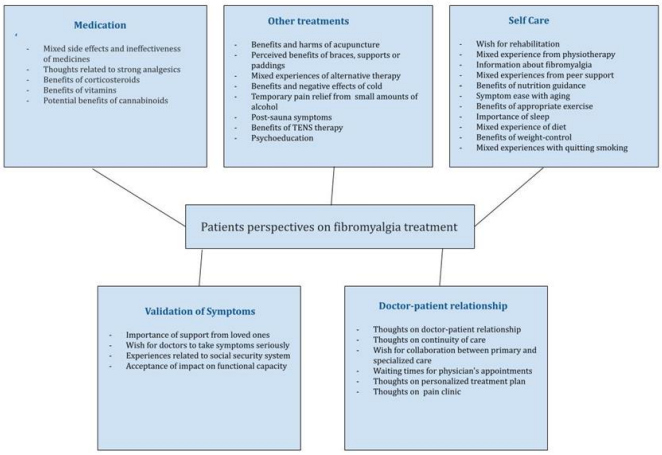
Linda Juel Ahrenfeldt[1]
Helene Støttrup Andersen[1], Sonja Wehberg[1], Jonas Kanstrup Olsen[1], Kirubakaran Balasubramaniam[1], Peter Hastrup[1], Dorte Ejg Jarbøl[1], Jesper Lykkegaard[1]
[1] University of Southern Denmark, Department of Public Health, Research Unit of General Practice

Introduction: Timely cancer diagnosis is critical for survival. For most patients the diagnostic process starts when presenting symptoms in general practice. Their continuity of care (CoC) is considered a key quality indicator.
Aim: To examine whether provider CoC in general practice during cancer diagnostic processes is associated with one-year mortality after diagnosis and whether this association varies by multimorbidity, social status, and symptom presentation.
Methods: We included 4,106 patients (mean age: 67.2 years) with incident cancer diagnosed in 2019-2021 who first presented with symptoms in general practice. Two CoC measures were applied: 1) number of general practitioners (GPs), staff members, and total providers involved during the diagnostic process; 2) average number of involved providers for other cancer patients with the same practice, thereby mitigating confounding by indication. Cox proportional hazards models estimated hazard ratios (HRs), adjusting for sociodemographic, socioeconomic, and clinical factors. The analyses were stratified by sex, multimorbidity, education and symptom presentation.
Results: Within one year, 25.9% of patients died. Mortality risk increased with the number of GPs seen, showing a dose–response pattern: two GPs (HR 1.39, 95% CI 1.20–1.61) and ≥three GPs (HR 1.59, 95% CI 1.33–1.90) compared with one GP. Similar associations were observed for total number of providers. Analysis using the second CoC measure indicated a similar tendency: 2nd quartile (HR 1.01), 3rd quartile (HR 1.04), and 4th quartile (HR 1.08), though non-significant. No clear patterns emerged in the stratified analyses.
Conclusions and clinical implication: Higher numbers of GPs involved in the diagnostic process may negatively impact cancer prognosis.

Patients' perspectives on fibromyalgia treatment- a qualitative study from a Finnish health center

Musculoskeletal
Clinical General Practice
Hertta Ramirez[1]
Tuomas Koskela[1, 2], **Aleksi Varinen**[1]
[1] Tampere University, Finland
[2] Tampere University Hospital, Finland

Introduction: Fibromyalgia is a functional syndrome. Symptoms include widespread pain and a variety of somatic symptoms. Physicians see treating fibromyalgia as a challenge and patients often find medications and other treatment methods inadequate.
Aim: Aim of this qualitative study is to explore Finnish fibromyalgia patients' experiences on the treatment and self-management.
Methods: This study is based on data from patients with fibromyalgia in primary healthcare study conducted in Nokia, Finland. Focus-group participants were selected using a purposive sampling method to achieve a maximum variation sample. Qualitative thematic analysis was used for the coded data from four focus-group discussions.
Results: Altogether five main themes were identified (Figure 1). Patients expressed overall dissatisfaction with the treatment of fibromyalgia. Medications were perceived with limited benefits. Self-care strategies had mixed experiences. Patients emphasized the importance of a patient-centered long-term doctor-patient relationship
Conclusions and clinical implication: Prioritizing patient-centered interaction such as shared decision making is important in the treatment of fibromyalgia. In addition, the continuity of care should be emphasized.



Rare diseases - a common problem in the general practitioner's office.

Multimorbidity and complex care needs
Clinical General Practice
Kristine Maria Hjulstad[1]
Torunn Bjerve Eide[1]
[1] Department og general medicine, University of Oslo.

Introduction: Rare diseases (RD) occur in 1:2000 patients, or less. About 7000 RDs are registered. Globally, RDs are a growing health priority, affecting an estimated 400 million people. The GP serves a vital role in caring for patients with RDs. Patients with RDs show complex care needs and a need for continuity of care across health services. There is, however, a lack of studies exploring illness experiences across rare diseases.
Aim: To acquire insights into the lived experiences of young patients with rare diseases (RD) in order to improve their follow-up in primary care.
Methods: Individual interviews with 14 young adults (18-30 years) with RDs will be performed and analyzed qualitatively using a narrative approach**.** Their self-stories are explored by focusing on both the themes and the structures of these stories
Results: After completing 10 interviews the preliminary results show that young adult patients with RDs express a sense of hopelessness in being "rare" and having few health care professionals to turn to for help. They often feel marginalized whilst seeking help across different health service levels. Delayed access to health services and the experience of being both under and over diagnosed by the GPs are also emerging themes.
Conclusions and clinical implication: To empower GPs in the follow-up care of patients with RDs, we need to understand the patients´ lived experiences and take them into account in order to provide a more sustainable and patient centered care in general practice.

Fulfilling goals, securing survival: General practitioners' roles and strategies in everyday moral decisions

Sustainable healthcare practices
Environmental Health and Sustainability
Linus Johnsson[1, 2]
Lena Nordgren[2, 3]
[1] Uppsala University, Centre for Research Ethics & Bioethics, Sweden
[2] Uppsala University, Centre for Clinical Research Sörmland, Sweden
[3] Uppsala University, Department of Public Health and Caring Sciences, Sweden

Introduction: The important work of general practitioners (GPs) takes place in the crossfire between biomedical and biopsychosocial paradigms, and is further complicated by consumerism, standardisation, and bureaucratisation. In previous studies we have found that the everyday moral decisionmaking of GPs can be thought of as balancing demands imposed by four voices: the situation, profession, system, and self.
Aim: To explore how GPs' balancing of demands translates into (1) choosing between social roles with diverging working logics and goals, and (2) selecting strategies to realise those goals while securing their survival in the workplace.
Methods: The current study is part of a grounded theory project involving 36 GPs and GP residents in six Swedish regions. Data were obtained through observations, individual interviews and focus group interviews, and analysed through continuous comparisons.
Results: The GP's response to the voices of the situation, profession, and system casts them into one of eight prototypical social roles, each with its distinct working logic and set of goals. GPs tend to oscillate between roles throughout a single encounter and employ several strategies for realising their goals. Since those strategies are more or less suitable for eliminating different threats to the self, the GP's behaviour may appear as self-preserving or self-effacing depending on the circumstances.
Conclusions and clinical implication: The model that we propose explains some factors that influence the moral choices that GPs make throughout an encounter. It is comprehensive enough to be useful in teaching or applied deductively in qualitative or quantitative research.

Medical certification as a moral practice - A qualitative study of general practitioners doing medical certificates

Other
Clinical General Practice
Christian Jauernik[1, 2]
Mads Aage Toft Kristensen[2], Frans Boch Waldorff[2], Poul Frost[1], Jan Renneberg[1], Mette Bech Risør[2]
[1] Department of Social Medicine, Copenhagen University Hospitals, Frederiksberg and Bispebjerg Hospital, Denmark
[2] Center for General Practice, Department of Public Health, University of Copenhagen, Denmark

Introduction: General practitioners often find issuing medical certifications for patients on long-term sickness absence a difficult and complex task. However, little is known about why this task is so challenging or how general practitioners navigate this complexity in their everyday practice.
Aim: To better support practitioners in managing medical certifications, we sought to gain a deeper understanding of the task by exploring their current practices.
Methods: The practice of medical certificates was explored through participant observation and interviews. 14 general practitioners participated, 11 through observations and interviews, and three through interviews only. Data was collected through field notes and audio recordings. Data was analyzed through the method of abductive analysis, informed by theory from the field of moral anthropology.
Results: We find that the practice of medical certificates is a moral practice — one in which general practitioners must navigate a complex situation involving many factors beyond medical information alone. In this practice, general practitioners act in ways that reflect multiple considerations: understanding the patient holistically and sharing this understanding, trying to help the patient, trying to follow the formal rules and expectations, considering what is fair from a societal perspective, and making the task 'disturb' everyday practice as little as possible.
Conclusions and clinical implication: The task of medical certificates is a practice in which both the situation and general practitioners' navigation of it involve moral dimensions. This novel understanding raises new difficult questions concerning medical certificates – of both practical and moral nature and for both professionals and for society.

Improving care for patients with complex multimorbidity through extended consultations in general practice

Innovation in primary care systems
Health services
Anne Holm[1]
Susanne Reventlow[1]
[1] Center for general practice, University of Copenhagen

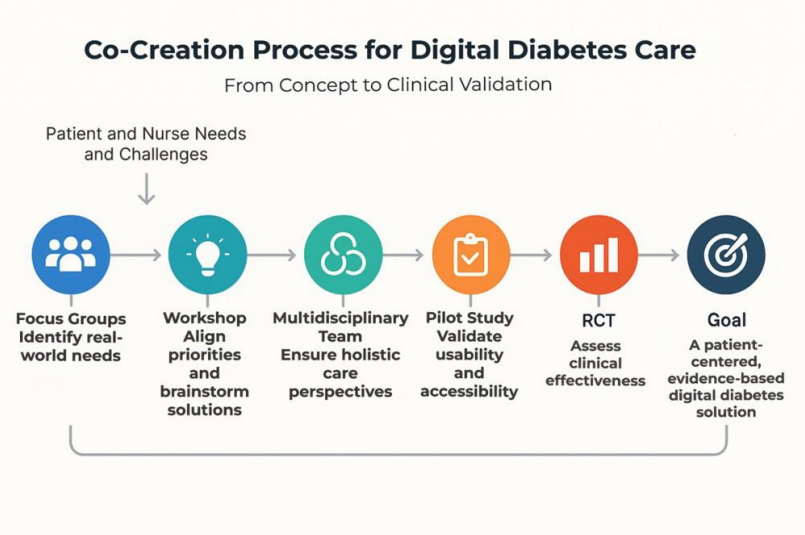
Introduction: Patients with complex multimorbidity often face high treatment burden and fragmented care. General practice provides continuity and is well positioned to offer structured, patient-centred coordination-of-care.
Aim: To evaluate the effectiveness of a yearly, extended consultation in general practice on need-based quality of life, health and health-care usage in patients with complex multimorbidity .
Methods: The MM600 trial was a pragmatic cluster-randomised controlled trial including 250 general practices allocated 1:1 to intervention or care-as-usual. Eligible patients had multiple chronic conditions, polypharmacy, recent secondary care contact, and significant problems due to their multimorbidity. Intervention practices received financial support and guidance on delivering a yearly extended consultation in 2023–2024; control practices continued usual care. The primary outcome was need-based quality of life, analyzed by intention-to-treat, with a pre-planned per-protocol analysis based on implementation degree.
Results: 141 practices were allocated to intervention and 109 to control. During the study, 13 intervention and 5 control practices withdrew. Around 2800 consultations were conducted in the two-year intervention period with a wide variation in degree of implementation. Patient-level data were received in November 2025 and are yet to be analyzed. Results will be presented at the conference.
Conclusions and clinical implication: The MM600 trial evaluated the impact of extended consultations for patients with complex multimorbidity in general practice. The presentation will report intention-to-treat results as well as further analysis regarding potential mechanisms behind a possible effect.

Designing Digital Diabetes Care Together: Insights from Patient and Provider Co-Creation

E-health and telemedicine
Digitalization and Technology

Frida Jarl[1, 2]
Anna Davelid[1], Katarina Hedin[2, 3], Andreas Stomby[2, 4], Christina Petersson[5, 6]
[1] Rosenhälsans vårdcentral, Region Jönköping County, Jönköpingsvägen 19, Huskvarna, SE-551 85, Sweden
[2] Department of Health, Medicine and Caring Sciences, Linköping University, Linköping, Sweden
[3] Futurum, Region Jönköping County, Jönköping, Sweden
[4] Råslätts vårdcentral, Region Jönköping County, Jönköping, Sweden
[5] Center for Learning and Innovation, Region Jönköping County, Huskvarna, Sweden
[6] Jönköping Academy for Improvement of Health and Welfare, Jönköping University, Jönköping, Sweden

Introduction: Self-management is essential for individuals with type 2 diabetes. Digital programs must be practical in primary care and accepted by both patients and healthcare professionals. Co-production is considered a promising approach to ensure relevance and usability.
Aim: To co-create a digital diabetes program with patients and healthcare providers.
Methods: In three focus groups, patients and nurses explored needs and challenges in type 2 diabetes. Results were discussed in a joint workshop with patients and nurses. After the workshop, a multidisciplinary team including dietitian, physiotherapists, psychologists, general practitioners, and a health literacy expert joined the project to contribute their expertise. These insights guided an iterative development process to build a prototype. Patients and providers participated in a pilot study, testing early versions and providing feedback on functionality and accessibility, which was used to refine the program.
Results: Co-production identified priorities related to education, motivation, and usability. Workshops generated design ideas that shaped the prototype. Involvement of the multidisciplinary team ensured comprehensive content. Iterative testing aligned the tool with patient needs and clinical requirements. Pilot testing confirmed improved accessibility and engagement.
Conclusions and clinical implication: Co-production enabled the creation of a digital diabetes program tailored to real-world needs. This approach may strengthen patient engagement, improve adherence to self-care, and support integrated care in primary settings. An ongoing randomized controlled trial (RCT) is evaluating its effectiveness in primary care settings.


Co-Creation Process for Digital Diabetes Care
From Concept to Clinical Validation
Patient and Nurse Needs and Challenges
Focus Groups
Identify real-world needs
Workshop
Align priorities and brainstorm solutions
Multidisciplinary Team
Ensure holistic care perspectives
Pilot Study
Validate usability and accessibility
RCT
Assess clinical effectiveness
Goal
A patient-centered, evidence-based digital diabetes solution

Patient experiences with group consultations when treated with semaglutide for obesity

Obesity and type 2-diabetes
Clinical General Practice
Rasmus Dahl-Larsen[1]
[1] University of southern Denmark

Introduction: This study evaluates a new consultation method in Danish general practice by exploring patient experiences with group consultations integrated into a structured obesity treatment program.
Aim: This qualitative case study explores patient experiences with group consultations (GCs) as part of a structured obesity treatment program in a Danish general practice. Patients receiving semaglutide were required to participate in GCs focused on lifestyle changes.
Methods: Design
A qualitative study design using semi-structured individual interviews. Thematic analysis was applied to identify key experiences and concerns.
Setting
A general practice in a larger city in the Region of Southern Denmark. Twelve patients (8 women, 4 men) with obesity, aged 27–69 years, fulfilling Danish treatment criteria for semaglutide (BMI >30 or >27 with comorbidities). Data was collected from November 1, 2023, to January 31, 2024.
Results: Prior to participation, patients expressed concerns about sharing personal information, confidentiality, and potential judgment from peers, likely influenced by prior experiences of weight-related stigma. However, post-participation, they reported positive experiences, valuing peer support and shared learning. Concerns about confidentiality diminished, and patients found the GC format beneficial. Most preferred GCs over traditional one-on-one consultations for ongoing treatment.
Conclusions and clinical implication: Despite initial reservations, patients found GCs to be a supportive and valuable component of their obesity treatment. Factors such as structured facilitation and a hybrid consultation model may enhance patient engagement and optimize the benefits of peer support. These findings suggest that GCs could be a viable and effective approach in general practice obesity management.

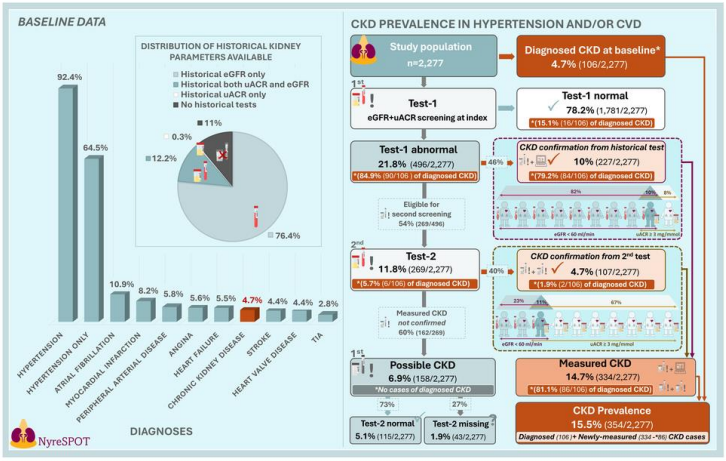
Targeted screening triples detected chronic kidney disease among patients with hypertension or cardiovascular disease

Cardiovascular
Clinical General Practice

Kristian Jong Høines[1]
Silje Madeleine Kalstø[2], Atle Berger Egeland[2], Zoya Hansen[2], Humaira Rasheed[3], Elin Ngo[3], Christian Jonasson[3], Trond Jenssen[4, 5], Bård Endre Waldum-Grevbo[5, 6], Marit Dahl Solbu[7, 8]
[1] Helsehuset Tananger, Tananger, Norway
[2] Medical Affairs, AstraZeneca, Løren, Norway
[3] NordicRWE AS, Oslo, Norway
[4] Department of Transplantation Medicine, Oslo University Hospital, Oslo, Norway
[5] Institute of Clinical Medicine, Faculty of Medicine, University of Oslo, Oslo, Norway
[6] Department of Nephrology, Oslo University Hospital, Oslo, Norway
[7] Section of Nephrology, University Hospital of North Norway, Tromsø, Norway
[8] Metabolic and Renal Research Group, UiT The Arctic University of Norway, Tromsø, Norway

Introduction: Chronic kidney disease (CKD) represents a largely underdiagnosed health burden. Without systematic screening of patients at risk, opportunities for early detection and organ protection are missed.
Aim: NyreSPOT assessed the CKD prevalence in Norwegian primary care patients at risk, from targeted screening with estimated Glomerular Filtration Rate (eGFR) and urine Albumin-Creatinine Ratio (uACR) combined.
Methods: Study design: National multicentre, non-interventional primary-care cohort (18-85y), with hypertension and/or established cardiovascular disease. Exclusions: diabetes, pregnancy, recent hospitalisation, limited life-expectancy.
Kidney-parameters (eGFR+uACR): Test-1 (Index-sampling); Historical tests *(*eGFR≤36 months, uACR≤12 months): Test−2 *(*repeated test ≥90 days from index).
CKD categories: *Diagnosed CKD (*pre-existing by record); *Measured CKD* (identified with ≥2 measurements of eGFR<60mL/min/1.73 m^2 and/or uACR≥3mg/mmol, ≥90 days apart);
Newly-measured CKD (no pre-existing diagnosis); *Possible CKD* (abnormal finding only for Test-1).
Results: Study population: 2,277 (45% women, mean age 65±11 years), hypertension (93%), and/or cardiovascular disease (35%), diagnosed CKD: 4.7% (106/2,277). Abnormal Test-1 occurred in 21.8% (496/2,277). Measured CKD was confirmed by historical tests in 10% (227/2,277); among diagnosed CKD 79.2% (84/106) had historical confirmation. Test-2 confirmed measured CKD in 4.7% (107/2,277); 98.1% (105/107) were newly-measured. Normal/missing Test-2 constituted 6.9%, indicating possible CKD. Overall, measured CKD was confirmed in 14.7% (334/2,277) participants, including 248 newly-measured CKD cases. Total CKD prevalence was 15.5% (354/2,277).
Conclusions and clinical implication: Combined screening with eGFR and uACR revealed a chronic kidney disease prevalence of 15.5% in patients with hypertension or cardiovascular disease,

with most new cases detectable by uACR alone. Screening aligned with national guidance is feasible in primary care and enables earlier intervention.



Life experiences, health, and disease: Building an essential knowledge platform for general practice

Multimorbidity and complex care needs
Clinical General Practice
Linn Okkenhaug Getz[1]
Bente Prytz Mjølstad[1]
[1] General Practice Research Unit, Department of Public Health and Nursing, NTNU, Trondheim, Norway

Introduction: Since Engel's call for a biopsychosocial model in Science in 1977, extensive research has demonstrated the interconnectedness between life experiences, health, and disease - down to a deep biological level. While this may seem like common sense to laypeople, there is considerable variation in how medical doctors, particularly GPs, understand and apply this evidence in clinical practice. Recognizing and addressing the interplay between biography and biology enhances diagnostic accuracy, therapeutic relationships, and long-term health outcomes. This approach requires structured knowledge, practical tools, and professional commitment.
Aim: To present a newly developed knowledge platform for GPs on the relationship between life experiences, health, and disease.
Methods: Drawing on extensive review of scientific literature and supported by local research projects, we have authored a new chapter on this topic in the major Norwegian textbook *Allmennmedisin* (Hunskår, 2023). Building on this, we will launch a comprehensive digital CME course for general practice in 2026.
Results: The book chapter and forthcoming digital course synthesize current evidence and clinical perspectives, offering practical tools for integrating life experiences into patient care. This initiative aligns with the 2020 Core Values and Principles for General Practice, emphasizing continuity and person-centered care with space for dialogue about life experiences and existential circumstances. Preliminary feedback from peer review and pilot discussions indicates strong relevance and applicability.
Conclusions and clinical implication: Integrating life experiences into patient care is essential for sustainable, person-centered general practice. We hope to inspire colleagues across the Nordic countries and beyond to engage in collaborative learning, professional development, and research to advance this important field.

Implementing specialty meetings to strengthen collaboration between general practice and hospitals. A feasibility study

Leadership and organizational development
Health services

Mette Platz[1]
Flemming Hald Steffensen[2], Anne Friesgaard Christensen[3], Thomas Houmann Petersen[4], Ejler Ejlersen[5], Claus Noringriis[6], Lene Søndergaard[7], Elisabeth Assing Hvidt[1], Merethe Kirstine Andersen[1], Jens Søndergaard[1]
[1] Research Unit of General Practice, Department of Public Health, University of Southern Denmark
[2] Department of Cardiologi, Lillebaelt Hospital, Department of Regional Health Research, University of Southern Denmark
[3] Department of Internal Medicine (Kolding), Lillebaelt Hospital, Department of Regional Health Research, University of Southern Denmark
[4] Department of Pediatrics and Adolescent Medicine, Lillebaelt Hospital, University Hospital of Southern Denmark, Kolding
[5] Department of internal Medicine (Vejle), Lillebaelt Hospital, Department of Regional Health Research, University of Southern Denmark
[6] General practitioner, Lægerne i Viuf, Storgade 67, 6052 Viuf
[7] General practitioner, Fænøsundlægerne, Teglgårdsparken 116, 1. sal, 5500 Middelfart

Introduction: Joint consultations between general practitioners and hospital consultants may enhance expertise, reduce unnecessary referrals, and foster mutual learning across the primary and secondary sector. The present study evaluated the implementation of specialty meetings where general practitioners and hospital consultants meet to discuss complex patient cases.
Aim: The main objective was to test whether specialty meetings are feasible, acceptable and implementable in Danish healthcare.
Methods: 23 general practitioners and 6 hospital departments with a total of 35 hospital consultants participated from January 2024 to December 2025. Every general practitioner had three specialty meetings with a hospital consultant from each specialty where they discussed patient cases, collaboration practices and general topics. Quantitative data was collected as self-reported surveys after each case discussion and analyzed in STATA. Qualitative data was collected as 30 qualitative interviews with participants and analyzed using reflexive thematic analysis by Braun and Clarke.
Results: A total of 303 meetings were conducted and 1600 cases discussed. Results indicate that the implementation of specialty meetings are feasible and acceptable in Danish general practice, but minor adjustments should be made to the organizational structure prior to implementation. The physicians were overall positive about specialty meetings and their possibilities.
Conclusions and clinical implication: Specialty meetings is a promising method to strengthen cross sector collaboration between general practice and hospitals and should be considered when implementing new collaborative procedures.

Financial Ties to Industry of Primary Studies Included in Systematic Reviews on Common Diagnoses are Underreported

Quality and safety
Health services

Marek Czajkowski[1, 2]
Louise Olsson[1, 3]
[1] School of Medical Sciences, Örebro University, Örebro, Sweden
[2] Avesta Health Centre, Avesta, Sweden
[3] Centre for Assessment of Medical Technology in Örebro (Camtö), Örebro, Sweden

Introduction: Systematic reviews (SRs) are essential to evidence-based decision-making, and an accurate assessment of methodological risk of bias in included primary studies is a hallmark of their validity. However, concerns persist regarding additional sources of bias, including those related to financial ties to industry. This is important not the least in SRs on common diagnoses with a substantial public health impact.
Aim: To compare how SRs report financial ties to industry for included primary studies with the disclosures reported within those primary studies themselves.
Methods: Seventeen SRs published in 2019, assessed at low risk of bias using ROBIS tool, and focused on interventions for COPD, type 2 diabetes, osteoarthritis, hypertension, depression, and dementia, were included. Basic characteristics, disclosures on financial conflicts of interest (fCOI), industry funding, and author–industry affiliations were manually extracted from each included primary studies. These disclosures were then compared with the information reported in the SRs.
Results: The SRs included a total of 302 primary studies. Across these, authors of 130 (43%) declared fCOI, industry funding was reported in 182 (60%), and author-industry affiliations in 141 (47%). None of the fCOI declared in primary studies were reported in the SRs (Table 1). Industry funding was reported for 113 (62%) of 182 primary studies, and author-industry affiliations in 2 (1%) of 141 primary studies with such disclosures.
Conclusions and clinical implication: Approximately half of the primary studies included in SRs on common diagnoses declared financial ties to industry; however, these disclosures were frequently underreported in the SRs, particularly fCOI.

Table 1. Comparison of financial conflict of interest disclosures in 302 primary studies and their reporting in seventeen systematic reviews on common diagnoses.
Numbers in parentheses represent row percentages of all included primary studies.

	Primary studies included in systematic reviews	Primary studies declaring fCOI	Primary studies reported as declaring fCOI in systematic reviews
Systematic reviews with authors declaring own financial ties to industry			
Avgerinos	55	53 (96)	0
Leopoldino	10	2 (20)	0
Gates	8	1 (12)	0
McShane	31	18 (58)	0
Madsen	31	18 (58)	0
Gordon	10	1 (10)	0
Toupin	22	0	0
Langham	6	6 (100)	0
Subtotal	**173**	**99 (57)**	**0**
Systematic reviews with authors denying own financial ties to industry			
Thompson	12	0	0
Pollok	13	0	0
Strozyk	4	0	0
Chaddha	13	1 (14)	0
Snelson	22	5 (33)	0
Dai	8	8 (100)	0
Witt	15	11 (78)	0
Lai	8	2 (50)	0
Wang	34	4 (18)	0
Subtotal	**129**	**31 (24)**	**0**
Total	**302**	**130 (43)**	**0**

fCOI - financial conflicts of interests

Predictors of subjective health complaints and musculoskeletal pain in middle- aged women of different migrant status

Migrant and refugee health
Health Equity
Nilam Shakeel[1]
Anne Karen Jenum[2], Christin Wiegels Waage[1, 3], Ibrahimu Mdala[2], Erik Werner[1], Bård Natvig[1], Anja Brænd[1, 2]
[1] Department of General Practice, Institute of Health and Society, University of Oslo, Oslo, Norway
[2] General Practice Research Unit (AFE), Department of General Practice, Institute of Health and Society, University of Oslo, Oslo, Norway
[3] Department of Rehabilitation Science and Health Technology, Oslo Metropolitan University, Oslo, Akershus, Oslo, Norway

Introduction: Subjective health complaints (SHCs) are common in general practice. Few longitudinal studies have explored the role of migration status or integration.
Aim: To identify factors that predicted SHCs 11 years after participating in a pregnancy cohort.
Methods: We used data from the population-based STORK Groruddalen cohort of healthy pregnant women (2008-2010) as baseline. At the 11-years follow up, 379 (52 % of eligible) women provided data on SHCs using the validated Subjective Health Complaint Inventory.

Lasso regression analysis selected important predictors for total SHC score and subscore for musculoskeletal pain (MSCP).
Results: Women's mean age was 42 years (SD:4.75) and 43% were born abroad.

Being born abroad, low education and parity were strong predictors for SHC 11 years later, while good self-reported health and a high socioeconomic position during pregnancy reduced the risk.

Regarding MSCP, low education, parity, depressive symptoms, hyperemesis and gestational diabetes were important predictors, while high level of integration and good self-reported health reduced the risk.
Conclusions and clinical implication: Low education and parity increased the risk for both SHCs and MSCP, while good self-reported health reduced the risk. Being born abroad predicted SHC, while not migration status per ce, but being more integrated, protected against MSCP.

Risk factors that may evolve during pregnancy were more strongly linked to MSCP than to SHC. This new knowledge may help general practitioners to identify women during pregnancy at risk of later SHCs and MSCp and offer preventive strategies, not least for MSCP in vulnerable women.

The Ordinary in the Extraordinary: Stories, Relationships, and the Role of General Practitioners in Times of Crisis

Continuity of care
Clinical General Practice

Marianne Rønneberg[1]
Bente Prytz Mjølstad[1], Lotte Hvas[2], Linn Getz[1]
[1] General Practice Research Unit, Department of Public Health and Nursing, Norwegian University of Science and Technology (NTNU), Trondheim, Norway
[2] The Research Unit for General Practice and Section of General Practice, Department of Public Health, University of Copenhagen, Copenhagen, Denmark

Introduction: International research on disaster response highlights general practitioners' (GPs') practical contributions in the aftermath of crises. They act as first-line responders, providing continuity of care, emotional support, and medical triage. However, the relational and narrative dimensions of this work have received less attention.
Aim: This study explores GPs' perspectives on providing patient care after a local disaster, with a particular focus on narratives and relational dynamics in doctor–patient encounters.
Methods: We conducted in-depth interviews with GPs and a focus group with medical secretaries working at the sole healthcare centre serving a Norwegian community affected by a quick-clay landslide in 2020. Data was analysed using Reflexive Thematic Analysis.
Results: Drawing on generalist skills, GPs adapted rapidly to new circumstances while maintaining continuity of care in the aftermath of the disaster. They described a moral duty to support the wider community. Their care was shaped by the need to maintain continuity while balancing ordinary routine work with extraordinary crisis-related demands. A key finding was that GPs expressed confidence that their everyday skills, strategies, and attitudes were well-suited for addressing patients' experiences related to the disaster. An existential dimension of care emerged as patients sought deeper connection through narratives, which GPs validated as shared lived experiences with unquestioned credibility.
Conclusions and clinical implication: The findings highlight the critical role of generalist competencies in safeguarding continuity and relational care during crises, reinforcing their importance in future disaster planning.

Measuring the carbon footprint for a primary healthcare clinic using the Greenhouse Gas Protocol. A pilot study

Sustainable healthcare practices
Environmental Health and Sustainability
Andreas Vilhelmsson[1]
Bengt Stavenow[2], **Per Geijer**[3], Eva Bolinder[3], Martin Kvist[3], Susanna Calling[3]
[1] Lund University
[2] Innovation Skåne
[3] Region Skåne

Introduction: The healthcare sector is a significant contributor to greenhouse gas emissions and Sweden is no exception, contributing about 20% of the public sector's total greenhouse gas emissions. Most emissions in the healthcare sector come from indirect emissions, mainly from procurement of goods and services and staff and patient travel, where primary care is a large contributor being the first point of contact for most people with healthcare in Sweden. In Region Skåne, the most southern county of Sweden, half of all care visits take place in primary care, which is the largest user of consumables in relation to care production. Despite this, not much is known of the actual greenhouse emissions that primary care is responsible for.
Aim: The aim of this pilot study was therefore to map and calculate the climate impact of primary care in Scania using a climate calculation tool based on the Greenhouse Gas Protocol (GHG) developed for national level to map areas suitable for measurement and follow-up within primary care.
Methods: This was done by comparing environmental spending analysis with on-site data collection at a primary care clinic. Collected data included invoices, medical inventories, pharmaceuticals, staff and patient transport, laundry service, and waste quantities.
Results: This pilot study found that the GHG is a good measurement and tool that can be used to measure carbon footprint at an individual primary healthcare clinic that hopefully can be generalised to primary care in general.
Conclusions and clinical implication: The result of this pilot study shows potential for better clinical practice and a sustainable healthcare.

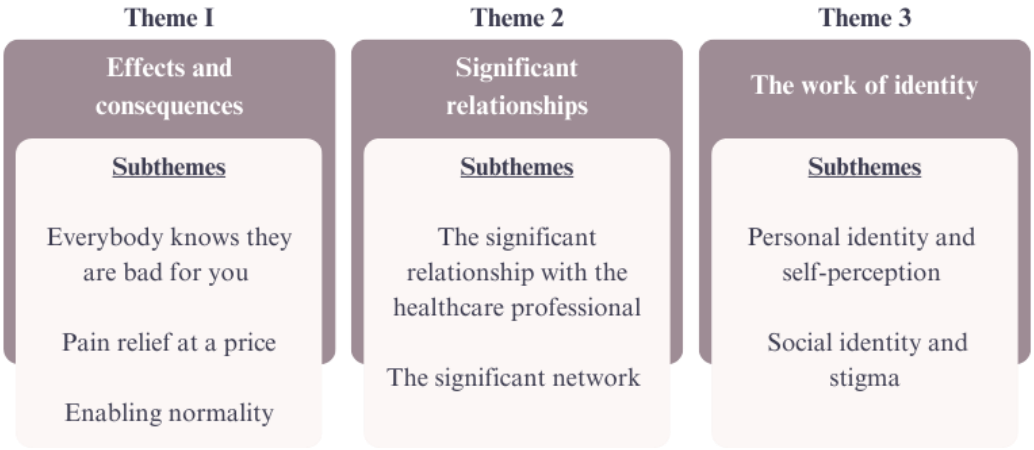
Barriers and motivators for deprescribing long-term short-acting opioid treatment in Danish adults in primary care

Patient centered care
Clinical General Practice

Sabrina Hoffensitz Nielsen[1]
Line Bjørnskov Pedersen[1, 2], Dorte Ejg Jarbøl[1], Merethe Kirstine Kousgaard Andersen[1], Jens Søndergaard[1], Carina Lundby[3, 4]
[1] The Research Unit for General Practice, Department of Public Health, University of Southern Denmark, Campusvej 55, 5230 Odense M, Denmark.
[2] DaCHE – Danish Centre for Health Economics, Department of Public Health, University of Southern Denmark, Campusvej 55, 5230 Odense M, Denmark.
[3] Hospital Pharmacy Funen, Odense University Hospital, Odense, Denmark.
[4] Clinical Pharmacology, Pharmacy and Environmental Medicine, Department of Public Health, University of Southern Denmark, Odense, Denmark.

Introduction: Long-term opioid treatment for chronic non-cancer pain provides limited benefits and carries substantial risk of harm. Despite Danish national recommendations discouraging long-term use of short-acting opioids, these prescriptions persist.
Aim: To investigate barriers and motivators towards opioid deprescribing among adults with chronic non-cancer pain, receiving long-term treatment with short-acting opioids in primary care.
Methods: This study involved semi-structured, face-to-face interviews with adults experiencing chronic non-cancer pain, who were receiving long-term treatment with short-acting opioids, recruited through Danish primary care. Data were analyzed abductively, starting with inductive coding and theme generation using reflexive thematic analysis, followed by interpretation informed by Self-Determination Theory.
Results: 11 participants were interviewed (mean age of 62 years; eight women). Three themes emerged from patient narratives: 1) Effects and consequences, 2) Significant relationships, and 3) The work of identity. Participants perceived as-needed dosing of short-acting opioids as psychological reassurance, enabling engagement in tapering. In line with Self-Determination Theory, motivation for medication change depended on the fulfillment of autonomy, competence, and relatedness. Supportive and respectful interactions encouraged identified or integrated regulation, while distrust led to controlled motivation or amotivation. Ambivalence made tapering simultaneously desirable and untenable.
Conclusions and clinical implication: Deprescribing opioids among adults with chronic non-cancer pain using short-acting opioids is not entirely a technical process; it requires relational sensitivity and attention to identity. Clinical practice should explicitly address ambivalence rather than interpret it as resistance, leverage the flexibility of short-acting opioids as reassurance, and promote autonomy, competence, and relatedness to enhance engagement and strengthen motivation.

Figure 1 | Overview of Main Themes and Subthemes



Interventions for multimorbidity involving depression or anxiety: A systematic review with meta-analysis

Multimorbidity and complex care needs
Clinical General Practice
Kieran Sweeney[1]
Stewart Mercer[1], Atul Anand[1], Bruce Guthrie[1], Lucy Stirland[1]
[1] University of Edinburgh

Introduction: Multimorbidity involving depression or anxiety is associated with reduced quality of life, poor physical health outcomes, and high health service use.
Aim: To identify, characterise and compare interventions targeting multimorbidity involving depression or anxiety.
Methods: Six major databases were searched up to November 2024. Included studies were randomised-controlled trials (RCTs) of primary care or community-based interventions targeting adults with depression or anxiety disorders and 1 long-term physical condition. Interventions components were systematically categorised and effects on mental health and quality of life outcomes were meta-analysed in groups defined by intervention type and assessment timepoint. Physical health outcomes were synthesised without meta-analysis using Fisher's method for combining p-values.
Results: Twenty-nine RCTs with of 9487 participants were included. There was high quality evidence that organisational interventions (n=10, including collaborative care, stepped care and post-discharge interventions) led to small improvements in depressive symptoms (SMD -0.25) and quality of life (SMD 0.21) at end-intervention. At late follow-up, these effects were non-significant. There was low-to-moderate quality evidence that patient-oriented interventions (n=19, including exercise, psychotherapy, and psychoeducation) led to small improvements in depressive symptoms (SMD -0.46) and quality of life (SMD 0.22) at end-intervention. These effects were diminished at late follow-up. There was limited evidence, from both organisational and patient-oriented interventions, for effects on physical health outcomes.
Conclusions and clinical implication: Improving key outcomes among people with multimorbidity involving depression or anxiety is possible, but the effects are small and, for patient-oriented interventions in particular, fade over time. Future research is needed to improve and sustain outcomes in this high-need high-cost group.

Predicting Long-Term Short-Acting Opioid Use: The Role of General Practice Consultations and Sociodemographic Factors

Screening programs and risk communication
Prevention

Sabrina Hoffensitz Nielsen[1]
Merethe Kirstine Kousgaard Andersen[1], Jens Søndergaard[1], Line Bjørnskov Pedersen[1, 2]
[1] The Research Unit for General Practice, Department of Public Health, University of Southern Denmark, Campusvej 55, 5230 Odense M, Denmark.
[2] DaCHE – Danish Centre for Health Economics, Department of Public Health, University of Southern Denmark, Campusvej 55, 5230 Odense M, Denmark.

Introduction: Long-term treatment with short-acting opioids should be avoided in chronic non-malignant pain. General practitioners play a crucial role in prevention by evaluating patient-individual risk prior to treatment initiation.
Aim: To determine predictors of long-term opioid use among adults with non-malignant pain initiating short-acting opioid therapy, with a specific focus on general practice consultation patterns and key sociodemographic characteristics
Methods: We applied a national register-based, repeated cross-sectional design using a linear probability regression model to estimate patients' risk of developing long-term use of short-acting opioids. The study included adults with non-malignant pain initiating short-acting opioids during the first half of 2019, continuously residing in Denmark throughout the study period, and surviving six months post-index date (N = 133,291).
Results: The risk of developing long-term treatment of short-acting opioids increased with patients' prior use of remote consultations (e-mail and telephone consultations), being middle aged (40-59) or elderly (80+), residing in the Capital or Zealand region, having low income or education, being unemployed or retired, and living alone.
Conclusions and clinical implication: Patients' previous general practice consultation patterns and their sociodemographic factors are associated with an increased risk of developing long-term treatment with short-acting opioids. These associations should inform prescribing practices when initiating treatment with short-acting opioids in adults with chronic non-malignant pain.

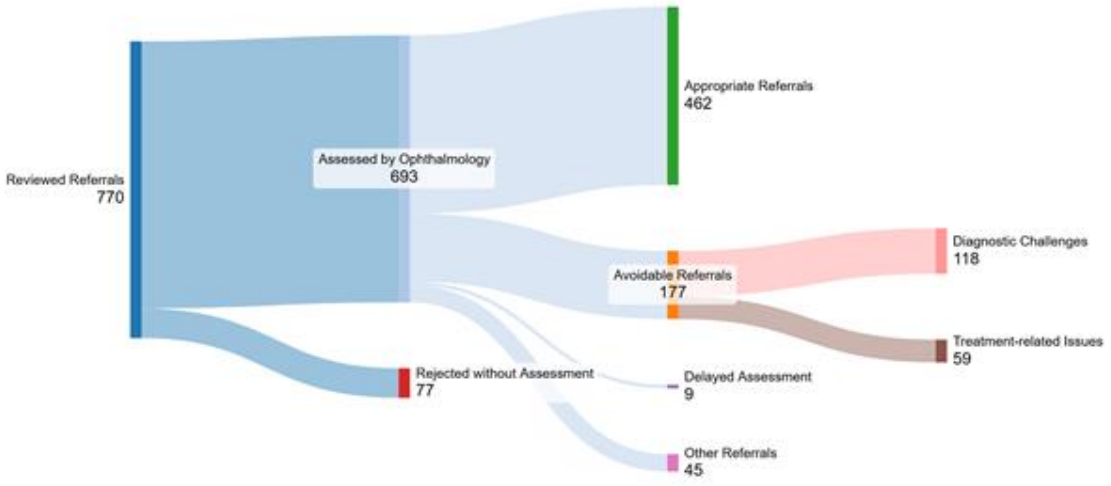

Adjusted Coefficients for the Explanatory Variables
Repeated Cross-Sectional Linear Probability Model
Scheduled specific preventive care consultations
Face-to-face consultations
E-mail consultations
Telephone consultations
Number of general practice consultations
Female
Male
Gender
10–19 years (teenagers)
20–29 years (young adults)
30–39 years (older adults)
40–49 years (established adults)
50–59 years (early older adults)
60+ years (elderly)
40–49 years (early middle age)
50–59 years (late middle age)
Age groups
Long higher education
Medium long education
Upper secondary level and vocational education
Primary school and preparatory education
Educational level
Education
Employed
Other
Retired
Unemployed
Occupation
Upper tertile
Middel tertile
Lower tertile
Family equivalent disposable income
North Denmark Region
Central Denmark Region
Region of Southern Denmark
Region Zealand
Capital Region of Denmark
Region
Not living alone
Living alone
Civil status
Living in nursing home
Not living in nursing home
Nursing home
Children living at home
Children at home
-0.08
-0.04
0.00
0.04
0.08
Adjusted Coefficient

Diagnostic support at the GP–ophthalmology interface: referral intensity and avoidability

Innovation in primary care systems
Health services

Karl Oskar Björkman[1, 2]
Eva Arvidsson[2, 3], Martin Rejler[1, 2, 4], Sofi Fristedt[1, 3], Tomas Bro[3, 5]
[1] School of Health and Welfare, Jönköping University, Jönköping, Sweden
[2] Region Jönköpings Län, Jönköping, Sweden
[3] Faculty of Medicine, Department of Health Sciences, Lund University, Lund, Sweden
[4] Department of Medical Sciences, Örebro University, Örebro, Sweden
[5] Bergman Clinics A6, Jönköping, Sweden

Introduction: Eye problems are a small share of general practice but generate high specialist demand. To optimize the primary care–ophthalmology interface, it is vital to distinguish whether referrals stem from inevitable clinical complexity or from modifiable process gaps, such as unutilized diagnostic tools.
Aim: To quantify the proportion of referrals driven by potentially resolvable diagnostic uncertainty (conditions manageable in primary care) and identify process factors to guide system optimization using the Quintuple Aim framework.
Methods: We conducted a retrospective observational study in Region Jönköping, Sweden (March–December 2019). We calculated system-level referral intensity using administrative data and performed a detailed chart review of 770 consecutive referrals to the regional ophthalmology clinic. Referrals were adjudicated as potentially avoidable based on adherence to regional guidelines.
Results: Eye-related encounters accounted for 1.77% of primary care physician volume. Despite this modest share, referral intensity was high: 78% of physician eye contacts resulted in specialist referral. In the chart review, 23% (95% CI, 20–26%) of referrals were potentially avoidable. Avoidability was strongly associated with examination gaps: the absence of slit-lamp documentation increased the odds of an avoidable referral by 3.2 times (95% CI, 2.1–4.8). Importantly, delayed specialist assessment occurred in only 1.2% of cases.
Conclusions and clinical implication: The system functions safely (few delays) but inefficiently, with nearly one-quarter of referrals driven by diagnostic uncertainty that is resolvable through basic anterior segment assessment. Re-engineering the interface—specifically by supporting GP slit-lamp use and enabling direct access for minor trauma—aligns with the Quintuple Aim, reducing unnecessary steps for patients while preserving specialist capacity.


Reviewed Referrals
770
Assessed by Ophthalmology
693
Rejected without Assessment
77
Appropriate Referrals
462
Avoidable Referrals
177
Delayed Assessment
9
Other Referrals
45
Diagnostic Challenges
118
Treatment-related Issues
59

Long-term clinical and health-economic outcomes of a primary care–based fracture-prevention programme in Sweden

Preventive programs
Prevention

Daniel Albertsson[1, 2]
Lisa Alvunger[3, 4], Robert Eggertsen[2], Anna Lindgren[5], Ulrica Mölstad[1], Ferdinando Petrazzuoli[5], Anna Segernäs[3, 6], Moses Sjölander[3], Hans Thulesius[1, 4, 5, 7], Pär Wanby[1, 7], Sandra Stern[1, 7]
[1] Region Kronoberg
[2] Gothenburg University
[3] Linköping University
[4] Region Kalmar
[5] Lund University
[6] Region Östergötland
[7] Linnaeus University,

Introduction: Fragility fractures cause significant disability, mortality and healthcare costs in ageing populations. Community-based prevention may contribute to maintaining mobility and preventing fractures in older adults.
Aim: To evaluate long-term fracture outcomes and cost-effectiveness of a population based fracture prevention programme in primary care in Sweden.
Methods: In 2002, 1,233 women aged 70–100 years, mean baseline average age 79, were followed until 2021: 1/3 to intervention group and 2/3 as controls. The intervention included: lifestyle advice, home-based nurse visits, tailored exercise to high-risk group (n=65), physiotherapist-led group training and bone-strengthening medication after bone mineral density assessment (n=285). Fragility fractures were documented in radiology reports 2002–2021. Based on intention to treat we performed an activity-based costing of staff time, materials and medication compared with published estimates of fragility fracture costs to derive preliminary cost-effectiveness estimates.
Results: Over 20 years, recurrent fragility fractures occurred in 14.1% of women (n=61) in the intervention group compared with 18.6% (n=148) in controls ($p<0.05$). Intervention costs were estimated at 1.0 MSEK. Among women with recurrent fragility fractures, the programme was associated with the prevention of 4 hip fractures, 1 pelvic fracture and 10 vertebral fractures—corresponding to approximately 1.28 MSEK in conservative cost savings (800 KSEK + 80 KSEK + 500 KSEK). Overall net savings were modest, still QALY gains were not included in the analysis.
Conclusions and clinical implication: A population-based fracture prevention in primary care focused on physical exercise and bone strengthening therapy for women appeared modestly cost-effective. Such programmes may empower GPs to deliver function-preserving prevention in ageing populations.

Developing a primary care intervention for Greater Trochanteric Pain Syndrome: Results from three pilot studies

Musculoskeletal
Clinical General Practice

Malene Kjær Bruun[1]
Sabina Vistrup[1], Henrik Riel[2, 3], Melanie Plinsinga[4], Sinead Holden[5], Michael Skovdal Rathleff[1, 3], Bill Vicenzino[6], Jens Lykkegaard Olesen[1]
[1] Center for General Practice at Aalborg University, Denmark
[2] Department of Physiotherapy, University College of Northern Denmark, Denmark
[3] Department of Health Science and Technology at Aalborg University, Denmark
[4] Australian Centre for Precision Health and Technology (PRECISE), Griffith University, Australia
[5] University College Dublin, School of Public Health Physiotherapy and Sports Science, Ireland
[6] School of Health and Rehabilitation Sciences, The University of Queensland, Brisbane, Australia

Introduction: Greater Trochanteric Pain Syndrome (GTPS) is a common cause of lateral hip pain, associated with substantial functional limitations and persistent symptoms.
Aim: To develop and test a clinically relevant and feasible treatment approach for GTPS patients to be used in general practice.
Methods: Three pilot studies were conducted: (1) adaption of a GTPS patient information leaflet, (2) development of a progressive home-based exercise program, and (3) feasibility of the combined intervention. The GTPS leaflet, originally developed in Australia, was adapted to the Danish primary care context and field-tested in general practice among 20 patients with GTPS and 9 general practitioners (GPs). The exercise program was developed through a two-round Delphi process involving 29 international GTPS specialists. The combined intervention, incorporating the leaflet, one ultrasound-guided corticosteroid injection and an eight-week home-based exercise programme, was piloted in a feasibility study including 17 GTPS patients.
Results: Eighty-one % of patients rated the leaflet satisfactory or very satisfactory, and 82% reported understanding of the content. Five patients and three GPs noted that simple exercises could further support patient care. Two-thirds of GPs deemed the leaflet feasible within a standard GP consultation. The Delphi process resulted in consensus on a short, progressive home-based exercise programme with three exercises. In the feasibility study, 15 participants completed the programme, and all rated both the exercise programme and post-injection exercise as acceptable.
Conclusions and clinical implication: The primary care treatment approach indicated acceptable patient responses and practical deliverability within routine general practice, providing the necessary basis for progressing to a controlled trial evaluating clinical effectiveness.

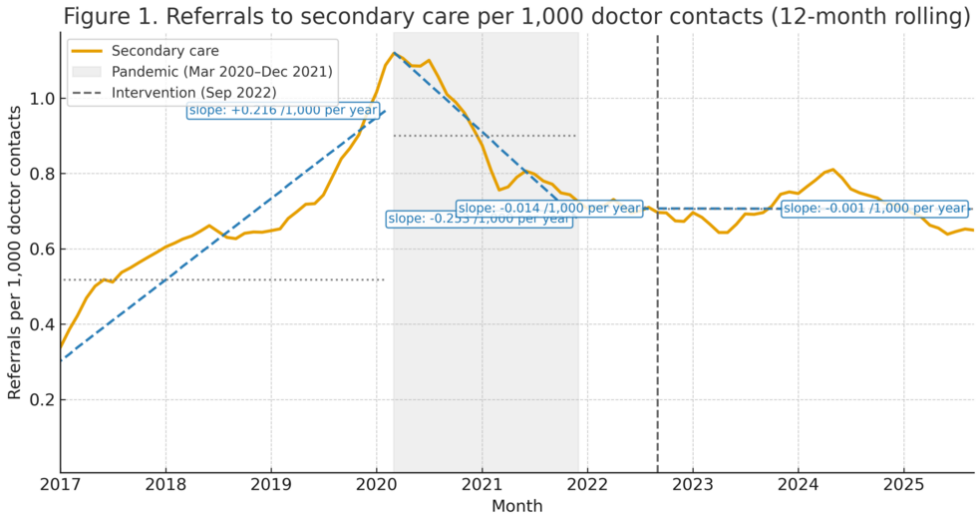
Urgency-based four-track referral pathway: a system-level redesign in primary care

Interprofessional collaboration and team-based care
Health services

Karl Oskar Björkman[1, 2]
Martin Rejler[1, 2, 3], Eva Arvidsson[2, 4], Sofi Fristedt[1, 4]
[1] School of Health and Welfare, Jönköping University, Jönköping, Sweden
[2] Region Jönköpings Län, Jönköping, Sweden
[3] Department of Medical Sciences, Örebro University, Örebro, Sweden
[4] Faculty of Medicine, Department of Health Sciences, Lund University, Lund, Sweden

Introduction: Referral inefficiency burdens clinicians and delays access. In a regional system (>300,000 residents), an urgency-based "four-track" pathway (direct admission, on-demand specialist advice, MDT conference, reverse referral) was launched to streamline primary–secondary collaboration.
Aim: Estimate the association between launch and referral intensity; assess denial rates and e-consult use; explore variation by specialty and clinic.
Methods: Interrupted time series of monthly primary-care–originated referrals (Jan 2015–Sep 2024). Segmented regression with seasonality and a pandemic segment; HAC-robust errors. Primary outcome: referrals per 1,000 primary-care visits; counts supportive. Robustness: alternative anchors and first-difference models; descriptive subgroup analyses.
Results: No immediate level change at launch (Sep 2022), but a negative post-intervention slope in activity-adjusted referrals, concentrated in medical/surgical specialties; psychiatry was unchanged to slightly higher. Denial rates showed no consistent change. E-consult use rose around implementation then stabilised. Effects varied across clinics; findings were directionally similar under alternative anchors/differencing. (Analyses to date are preliminary.)
Conclusions and clinical implication: A large, urgency-based pathway can reduce low-value referral propensity without raising denials, plausibly via substitution to on-demand advice/MDT and clearer triage rules. Clinical takeaway: maintain training, keep pathway materials easy to access, and monitor activity-adjusted rates routinely.

Figure 1. Referrals to secondary care per 1,000 doctor contacts (12-month rolling)



General practitioners' certainty in diagnosis and requests when referring to outpatient care

Policy, governance, and healthcare reform
Health services

Jesper Lykkegaard[1]
Linda Juel Ahrenfeldt[1], Kjeld Møller Pedersen[2], Anders Peter Munck[1], Peder Ahnfeldt-mollerup[3], Jonas Olsen[1]
[1] University of Southern Denmark, Department of Public Health, Research Unit of General Practice
[2] University of Southern Denmark
[3] Lægehuset Vejle

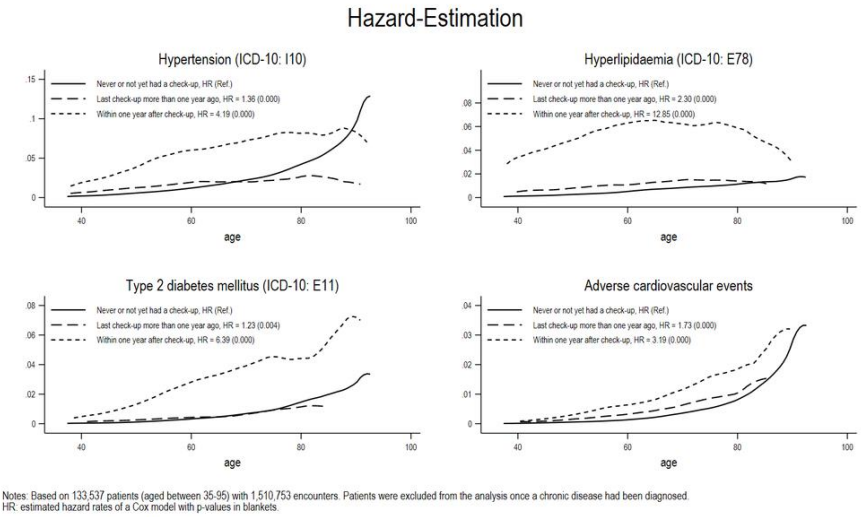
Introduction: In specialized healthcare systems where general practitioners act as gatekeepers, referral diagnoses and requests are increasingly used to determine the patients' secondary care pathways and services offered.
Aim: To investigate general practitioners' certainty in diagnosis and requests as well as motivation when referring to outpatient care.
Methods: For two weeks, each time they referred a patient to outpatient care, general practitioners in Southern Denmark consecutively registered their motivation for referring as well as certainty in the diagnosis and requests to the receiving department. Associations between certainty and general practitioners' age, gender, practice size, and consultation frequency were analysed using logistic regression.
Results: A total 73 GPs registered 835 referrals: most frequently about musculoskeletal (23%), internal medicine (19%), general surgery (14%), or cancer (11%). In 39% of them, the diagnosis was uncertain and the request unspecified, highest for internal medicine and lowest for musculoskeletal. Uncertainty decreased with increasing age of the GP. Common requests in the referrals were for a specific treatment (19%), for a specific examination (10%), and for ruling in- or out a specific diagnosis (11%). Common motivations for referring were lack of competence (86%), lack of equipment (34%), patient request (14%), and to comply with guidelines (12%).
Conclusions and clinical implication: General practitioners' uncertainty about diagnosis and what specifically to requests when referring patients to outpatient care highlights the need to reconsider rigid transition procedures that depend on referral content to direct patients into hospital pathways.

Impact of preventive health check-ups on diagnoses and outcomes: A retrospective cohort study in Germany

Preventive programs
Prevention

Christoph Strumann[1]
Johannes Rieken[1], Jost Steinhäuser[1]
[1] Institute of Family Medicine, University Medical Centre Schleswig-Holstein, Germany

Introduction: Although routine exams for asymptomatic adults are often seen as low-value care, Germany offers a triennial health check to all individuals aged 35 and older in primary care. To date, the impact of this prevention programme on population health has not been systematically evaluated.
Aim: This analysis examines whether participation in the preventive health check-up leads to more diagnoses among asymptomatic individuals compared with non-participants, and whether it provides protection against clinically relevant health events.
Methods: The retrospective cohort study used routine data of 17 primary care practices from 2001 to 2025 from the Supraregional Health Service Research Network (SHRN). A survival analysis compares patients who have undergone the preventive health check-up with those who have not, accounting for the time since their last check-up, to estimate the age-dependent probability of receiving new diagnoses of hypertension, hyperlipidemia and diabetes, as well as the risk of clinically relevant events.
Results: A total of 133,537 patients with 1,510,753 encounters were analyzed, of whom 27,621 participated in a preventive health check-up. Estimated hazard ratios indicate that within one year of the examination, participants had up to a 13-fold higher probability of being diagnosed with one of the considered conditions. Attendance at the health check-up was not associated with a reduced risk of clinically relevant events.
Conclusions and clinical implication: While preventive health check-ups increase disease detection, their impact on preventing adverse health outcomes remains unclear, highlighting the need for further evaluation to optimize their value and targeting.



Notes: Based on 133,537 patients (aged between 35-95) with 1,510,753 encounters. Patients were excluded from the analysis once a chronic disease had been diagnosed.
HR: estimated hazard rates of a Cox model with p-values in blankets.

Personal GP continuity improves healthcare outcomes in primary care populations: a systematic review

Continuity of care
Clinical General Practice

Sven Engström[1]
Malin André[2], Eva Arvidsson[1, 3], Carl Johan Östgren Östgren[3], Margareta Troein[4], Lars Borgquist[3]
[1] Futurum Academy of Health and Care, Region Jönköping County,
[2] Department of Public Health and Caring Sciences, Family Medicine and Preventive Medicine, Uppsala University, Uppsala,
[3] Department of Health, Medicine and Caring Sciences, Linköping University, Linköping,
[4] Department of Clinical Sciences, Faculty of Medicine, Lund University, Malmö

Introduction: Personal continuity is fundamental for GPs but there is insufficient evidence to support its benefits in ordinary primary care populations.
Aim: To investigate the effects of GP personal continuity on the healthcare outcomes of primary care populations.
Methods: Systematic review of quantitative studies investigating associations between personal continuity of care and outcomes such as mortality and healthcare utilisation. Embase, PubMed, Scopus, and Web of Science were searched for studies published between 1 January 2000 and 31 October 2023. Owing to study heterogeneity the synthesis was conducted narratively; study results were summarised and expressed as having higher (compared with lower) continuity of care. Certainty of each summarised result was assessed using the GRADE framework.
Results: Out of 5792 unique references, 18 studies were included in the final analyses. The outcomes were grouped into three categories. Higher (when compared with lower) personal continuity with a GP/ family physician probably prevents premature mortality (moderate certainty: four studies, 5 638 305 participants), probably reduces the risk of admission to hospital (moderate certainty: 11 studies, 13 642 684 participants), and probably lowers risk of emergency Department visits (moderate certainty: seven studies, 3 855 487 participants).
Conclusions and clinical implication: Higher, compared with lower, continuity in the relationship between GP and patients in primary care populations is associated with reduced mortality, admissions to hospital, and emergency department visits. Relatively small improvements in personal continuity, which may be achieved in most practices, significantly reduce healthcare consumption.

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Exploring factors linked to optimal diabetes follow-up frequency in general practice in the Region of Southern Denmark.

Obesity and type 2-diabetes
Clinical General Practice
Gitte Stentebjerg Petersen[1]
Julie Dyrgaard[1], Linda Juel Ahrenfeldt[2], Jesper Lykkegaard[2]
[1] Steno Diabetes Center Odense, Region of Southern Denmark
[2] Research Unit of General Practice, University of Southern Denmark

Introduction: The increasing pressure on healthcare systems calls for a more differentiated approach to managing type 2-diabetes (T2D) in general practice. International guidelines on consultation frequency for T2D vary considerably and are largely based on expert consensus rather than empirical evidence.
Aim: To examine treatment and follow-up patterns for patients with T2D in general practice and identify factors influencing clinicians' assessment of follow-up intervals.
Methods: We conducted a retrospective audit in 26 general practices, who reviewed between 30-150 T2D patient trajectories within a one-year period counting from their first diabetes consultation in 2023. Patients were included in the analysis if they had at least one 'diabetes consultation' defined as a consultation where HbA1c was measured.
Results: Of 1.754 reviewed patients 1.398 were included. During the study year the patients had a mean of 2.6 T2D consultations. Clinicians assessed the consultation frequency as '*appropriate'* in 73% of cases, '*could be less frequent'* in 13% of cases and '*could be more frequent'* in 9%. Patients suitable for less frequent follow-up were older, had lower HbA1c levels, fewer medication adjustments, and more often achieved clinical targets. Patients requiring more frequent follow-up were younger, had higher HbA1c, less often reached clinical targets, more frequently had cardiovascular disease, and were assessed as vulnerable.
Conclusions and clinical implication: Consultation frequency varied and largely reflected clinical complexity and disease control.
Findings support a potential for a more differentiated follow-up strategy, where stable patients who had no recent treatment modifications could be seen less often, allowing resources to be prioritized for complex or vulnerable patients.

Post-bariatric surgery 5-year follow-up in primary care: a prospective cohort study

Obesity and type 2-diabetes
Clinical General Practice
Martin Thorslund[1, 2]
Jesper Celander[1, 2], Cecilia Björkelund[1, 2], Minna Johansson[1, 2], Liisa Tolvanen[3, 4], My Engström[5, 6, 7], Karin Mossberg[1, 2]
[1] Primary Care/Department of Public Health and Community Medicine, Institute of Medicine Sahlgrenska Academy, University of Gothenburg, Sweden
[2] Research, Education, Development & Innovation, Primary Health Care, Region Västra Götaland, Sweden
[3] Department of Medicine, H7, Karolinska Institutet, Stockholm, Sweden
[4] Department of Psychiatry and Psychology, Mayo Clinic, Rochester, USA
[5] Department of Surgery, Sahlgrenska University hospital, Gothenburg, Sweden
[6] Institute of Health and Care Sciences, Sahlgrenska Academy, University of Gothenburg, Gothenburg, Sweden
[7] Region Västra Götaland, Sahlgrenska University Hospital, Department of Surgery, Gothenburg, Sweden

Introduction: Long-term follow-up after bariatric surgery is strongly recommended, yet adherence declines over time.
Aim: To examine the frequency, predictors, and components of primary care follow-up 5 years after Roux-en-Y gastric bypass (RYGB) and sleeve gastrectomy (SG).
Methods: A Swedish longitudinal cohort of 589 adult patients completed structured surveys at 3- and 5-years post-surgery. Participants reported whether they had bariatric follow-up in primary care and which components were included. Multivariable logistic regression identified predictors of 5-year follow-up. A post-hoc analysis assessed the association between supplement adherence the first 2 years and supplement use at 5 years.
Results: At 3 years, 62% reported primary care follow-up; at 5 years, 52%, of whom 70% had blood tests and recieved prescriptions, about half had consulted a physician. SG and RYGB did not differ. Male sex was associated with lower odds of 5-year follow-up (OR 0.43), whereas 5-year supplement use was positively associated (OR 2.61). Early adherence to supplements increased the odds of continued use more than fivefold, whereas any early lapse tripled the odds of non-use at 5 years.
Conclusions and clinical implication: Half of patients reported primary care follow-up at 5 years, mirroring other follow-up studies in primary care and in surgical clinics. Male sex and insufficient supplement adherence were associated with a reduced likelihood of attending. Early adherence patterns strongly predicted later behaviour. Early risk stratification may support a needs-based model in which some patients may benefit from surgical-clinic follow-up, while most can be monitored in primary care, optimising resources in alignment with Choosing Wisely principles.

Patient preferences in primary healthcare providers – doctors' continuity and competence is Key!

Quality and safety
Health services

Louise Emilsson[1, 2, 3]
Torunn Bjerve Eide[1], Lise M. Helsingen[4]
[1] Department of General Practice and General Practice Research Unit (AFE), Institute of Health and Society, University of Oslo, Oslo, Norway
[2] Vårdcentralen Nysäter and Centre for Clinical Research, County Council of Värmland, Sweden.
[3] Department of Medical Epidemiology and Biostatistics, Karolinska Institutet, Solna, Sweden.
[4] Clinical Effectiveness Research Group, Institute of Health and Society, University of Oslo, Oslo, Norway.

Introduction: On February 1, 2025, 5,897 residents in Säffle, Sweden, were relisted with a new primary healthcare provider according to geographical address, as their private provider closed. Simultaneously, the existing public provider split into two new units: a smaller country-side unit staffed with permanent doctors and a bigger unit mainly staffed with locum doctors. Providers often struggle with limited resources, both economical and availability of personnel, necessitating prioritizations to maintain sustainable service.
Aim: To assess patient-reported priorities through questionnaires using instrument variable analyses according to geographical provider relocation.
Methods: All, N=12,165, adults residing in Säffle were invited to answer electronic questionnaires distributed via postal invitation to online surveys (including questions about importance of continuity, availability, location and other patients' preferences) around the time of provider relisting and 6 months later.
Results: In total, 927 individuals (8%) answered the first and 620 (5%) the second questionnaire. The factors showing highest importance for patients' provider preference were access to a regular doctor (54.6%) and the perceived competence of the personnel (55.2%). Of patients relisted to the small unit, 61% found the new provider better and 9% worse. Among those relisted to the bigger unit, 13% found it better and 34% worse, mainly explained by lack of doctor continuity. Only 22% mentioned the presence of electronic chat as being of highest importance.
Conclusions and clinical implication: The study highlights the significance of doctor continuity and competence among the personnel. When reorganizing sustainable services, continuity seems to be more important to patients than short waiting time or geographical proximity.

	Patients previous Health Care Provider		
	Public	Private	Total
Access to permanent / non-locum doctor			
Highest importance	327 (52.3%)	179 (55.3%)	506 (54.6%)
Very important	100 (16.0%)	40 (13.2%)	140 (15.1%)
Important	40 (7.8%)	16 (5.3%)	65 (7.0%)
Access to permanent nurse			
Highest importance	230 (36.8%)	107 (35.4%)	337 (36.4%)
Very important	127 (20.3%)	64 (21.2%)	191 (20.6%)
Important	98 (15.7%)	34 (11.3%)	132 (14.2%)
Availability to call the provider throughout the day (8 AM- 5 PM)			
Highest importance	290 (46.4%)	149 (49.3%)	439 (47.4%)
Very important	72 (11.5%)	22 (7.3%)	94 (10.1%)
Important	63 (10.4%)	34 (11.3%)	99 (10.7%)
Availability - provider answering ≥90% of calls each day			
Highest importance	306 (49.0%)	170 (56.3%)	476 (51.3%)
Very important	70 (11.2%)	35 (11.6%)	105 (11.3%)
Important	53 (8.3%)	13 (4.3%)	66 (7.1%)
Availability to contact my provider via Chat function			
Highest importance	164 (26.2%)	42 (13.9%)	206 (22.2%)
Very important	89 (14.2%)	54 (17.9%)	143 (15.4%)
Important	119 (19.3%)	54 (17.9%)	172 (18.6%)
Geographic proximity of the provider			
Highest importance	235 (37.6%)	115 (38.1%)	350 (37.8%)
Very important	93 (14.9%)	49 (16.2%)	142 (15.3%)
Important	85 (13.6%)	37 (12.3%)	122 (13.2%)
The perceived competence of the personnel			
Highest importance	326 (52.2%)	186 (61.6%)	512 (55.2%)
Very important	58 (9.3%)	25 (8.3%)	83 (9.0%)
Important	46 (7.0%)	13 (4.3%)	57 (6.1%)
Availability of doctors appointments			
Highest importance	276 (44.2%)	143 (47.4%)	419 (45.2%)
Very important	82 (13.1%)	53 (17.5%)	135 (14.6%)
Important	67 (10.7%)	12 (4.0%)	79 (8.5%)
Availability of nurse appointments			
Highest importance	201 (32.3%)	126 (41.7%)	327 (35.3%)
Very important	112 (17.9%)	50 (16.6%)	162 (17.5%)
Important	95 (15.2%)	18 (6.0%)	113 (12.2%)
Functioning waitlist system for yearly check-up			
Highest importance	248 (39.7%)	124 (41.1%)	372 (40.1%)
Very important	76 (12.2%)	37 (12.3%)	113 (12.2%)
Important	71 (11.4%)	29 (9.6%)	100 (10.8%)

Patient experiences with student consultations in Norwegian general practice: a questionnaire study

Undergraduate and postgraduate medical education
Continuous Professional Development (CPD)

Anja Brænd[1, 2]
Guro Haugen Fossum[2], Maria Romøren[1], Knut Eirik Eliassen[3], Erik Lønnmark Werner[1], Trygve Skonnord[1]
[1] Department of General Practice, Institute of Health and Society, University of Oslo, Norway
[2] General Practice Research Unit, Institute of Health and Society, University of Oslo, Norway.
[3] Department of Global Public Health and Primary Care, University of Bergen, Norway

Introduction: Clinical teaching in general practice is an essential part of medical education, increasingly important as more patients receive their treatment in primary care. Patient involvement is essential, but skills vary among students. Uncertainty in students might affect patients in the consultation.
Aim: The aim of this study was to explore patients' experiences with medical students' independent consultations, focusing on satisfaction, outcomes of the consultation, and patient involvement.
Methods: We conducted a cross-sectional study with fifth-year medical students in general practice placements in Norway during 2024. Students were instructed to invite 20 patients to answer an anonymous questionnaire directly after a consultation with the student. The questionnaires included demographics and reasons for the visit. Patients rated satisfaction, acceptance of the student, and whether they received the needed help. Further questions addressed actions taken, follow-up plans, and shared decision-making. Descriptive analyses were performed.
Results: Of 232 medical students, 94 (41%) participated. We received 1306 patient answers (response rate 77%). Almost all patients (98%) were satisfied with the consultation. Patients reported a high degree of satisfaction with the information they received regarding their health condition and treatment, as well as involvement in decisions made. They reported large variation in the outcomes of the consultations and the further plans. Almost all patients reported that they received the help they came for.
Conclusions and clinical implication: Almost all patients received the help they came for in consultations with medical students. This may ensure clinical teachers that student consultations are acceptable for patients.

Excessive treatment burden for patients with multiple chronic conditions who fall under several guidelines

Multimorbidity and complex care needs
Clinical General Practice
Mathea Eriksrød[1]
Trygve Skonnord[2]
[1] Faculty of Medicine, University of Oslo, Norway
[2] Department of General Practice, University of Oslo, Norway

Introduction: As multimorbidity increases and evidence-based, disease-specific guidelines expand, the cumulative treatment burden for patients with multiple conditions is believed to be substantially greater than for single-disease patients. The field is still developing and currently has limited research.
Aim: To map existing research on treatment burden among multimorbid patients subject to multiple disease-specific guidelines and to identify strategies to prevent unreasonable burden.
Methods: We conducted a scoping review of English and Scandinavian-language empirical and review articles indexed in PubMed through December 2024; comments and editorials were excluded. Titles/abstracts and full texts were screened by the authors; data were charted and synthesised thematically.
Results: Of 159 screened papers, 13 papers were included in the study. The papers covered varied aspects relevant to this study. Results showed that treatment burden spans economic, social and lifestyle factors, plus health literacy, time costs, medication regimens, and side effects. A central finding was the importance of alignment between patient workload and capacity to maintain quality of life. These issues were shaped by both patients and the healthcare system. Existing national guidelines in the studied settings did not sufficiently account for multimorbidity. Suggested remedies included the biopsychosocial model, shared decision-making, stronger patient-centeredness, health literacy initiatives, and clinician education on treatment burden.
Conclusions and clinical implication: To reduce unreasonable treatment burden for multimorbid patients, guideline developers should account for multimorbidity, and clinicians should use shared decision-making and capacity-focused assessments. Interventions to improve health literacy and clinician education may mitigate burden.

Rate of otitis complications with lower antibiotic prescribing to preschool children in general practice.

Infections
Clinical General Practice

Therese Renaa[1, 2]
Guro Haugen Fossum[1, 2], Sigurd Høye[1, 2], Marius Skow[1, 2], Louise Emilsson[1, 3, 4, 5]
[1] Department of General Practice, University of Oslo, Norway
[2] The Antibiotic Center for Primary Care, University of Oslo, Norway
[3] Vårdcentralen Värmlands Nysäter and Centre for Clinical Research, County Council of Värmland, Värmlands Nysäter 661 95 Karlstad, Sweden
[4] Department of Medical Epidemiology and Biostatistics, Karolinska Institutet, Stockholm, Sweden
[5] School of Medical Science, University of Örebro, Örebro, Sweden

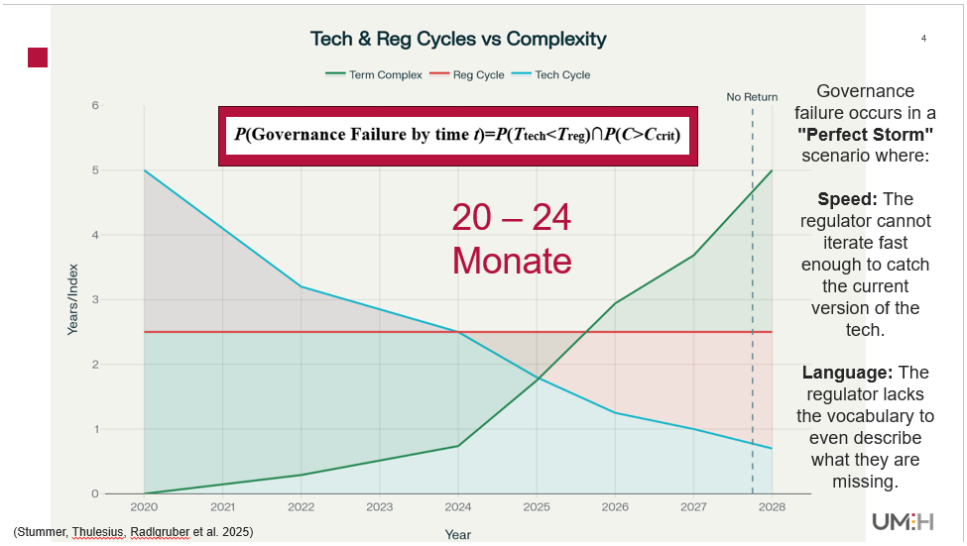
Introduction: Antibiotic prescribing for otitis decreased in Norway from 2012 to 2019. Diagnosing otitis in young children is challenging, and the consistently high antibiotic prescription rate indicates a low threshold for antibiotic treatment in general practice, likely driven by diagnostic uncertainty and concern for complications.
Aim: To investigate if the rate of severe complications increases when fewer children with otitis are treated with antibiotics.
Methods: Registry study based on population data combined from four different health registries: KUHR (The Norwegian control and reimbursement registry), SSB (Norwegian statistics), NPR (The National Patient Registry), and NorPD (the Norwegian prescription registry). Multivariate logistic regressions tested associations of antibiotic treatment for otitis with hospitalization and severe complications, adjusted for demographic factors, underlying illness, health care access and the general practitioners (GP's) prescription patterns. Severe complications included sinus venous thrombosis, mastoiditis, pneumonia, meningitis and sepsis.
Results: Preliminary results indicated that of 269,003 otitis episodes, only 300 resulted in a severe complication, 0.1%. Pneumonia and mastoiditis were the most common severe complications.
The rate of severe complications changed minimally from 2012 (9/10 000 episodes) to 2019 (11/10 000 episodes), while the antibiotic prescription rate decreased by 21%. Asthma (OR 2.05 CI 1.54 – 2.75) and Down syndrome/craniofacial anomaly (OR 2,63 CI 1.08 – 6.40) gave the highest OR for severe complications among pre-existing conditions. The risk of complications was the same for children treated by low-prescribing GPs as high-prescribing GP's.
Conclusions and clinical implication: Severe complications of otitis are rare. There was observed no increase in the rate of complications with lower antibiotic prescription.

Escalating terminology complexity threatens safe digital transformation in family medicine

Artificial intelligence and decision support
Digitalization and Technology

Odi Stummer[1, 2, 3]
Hans Thulesius[2, 3, 4], Ilja Radlgruber[5], Michael Alexander Riegler[6], Thomas Frese[1, 2, 3]
[1] Martin-Luther-University Halle-Wittenberg, Germany
[2] WONCA Europe
[3] EGPRN
[4] Linnéuniversitetet, Kalmar, Sweden
[5] Siegmund Freud University, Vienna, Austria
[6] OsloMet, Oslo, Norway

Introduction: Digitalization in family medicine is accelerating faster than regulatory and terminology frameworks can safely manage. Rapid uptake of telemedicine and artificial intelligence has created an explosion of partly undefined terms for tools, workflows and decision support in primary care, already undermining meta-analyses, guideline development and cross-country comparison.
Aim: The study aimed to quantify when and under which conditions terminology complexity in digital primary care outpaces regulatory capacity for harmonized, evidence-based governance, and to identify a probabilistic "point of no return" for safe guideline development and implementation.
Methods: A mixed-methods design combined cycle analytics, Bayesian scenario modelling and cross-jurisdictional validation. Technology adoption cycles for telemedicine, AI and emerging digital twin applications were reconstructed from international data and compared with 17 historical terminology harmonization cycles. A hierarchical Bayesian model estimated the probability that future technology cycles become shorter than regulatory cycles while semantic complexity, measured by unmappable and drifting terms, exceeds empirical thresholds.
Results: Technology cycles in primary care are projected to fall to about 1.25 years by 2027, while terminology cycles remain around 2.5–3 years. The model yields a median collapse probability of about 75% by Q3/Q4 2027 once several hundred terms lack stable mappings, with high-risk trajectories concentrated in AI-intensive, guideline-driven general practice settings.
Conclusions and clinical implication: Without immediate reform, semantic fragmentation around digital tools will increasingly compromise evidence synthesis, decision support and patient safety in general practice. Real-time registries, pre-market mapping and continuous construct-drift monitoring, tied to approval and reimbursement, are needed to preserve safe digital care.



(Stummer, Thulesius, Radlgruber et al. 2025)

Predicting coronary artery disease using pre-test probability and other risk factors – a cross-sectional cohort study

Cardiovascular
Clinical General Practice

Erik Stertman[1, 2]
Madeleine Asklöf[3], Oleg Systoev[4], Mårten Sandstedt[1, 5, 6], Anna Moberg[1, 7], Lisa Kastbom[1, 8], Carl-Johan Östgren[1, 5, 8], Sofia Sederholm Lawesson[1, 9], Jan Engvall[1, 5, 10], Staffan Nilsson[1], Fredrik Iredahl[1, 2, 11]
[1] Department of Health, Medicine and Caring Sciences, Linköping University, Linköping, Sweden
[2] Primary Healthcare Center Åby, Region Östergötland, Norrköping, Sweden
[3] Primary Healthcare Center Hierta Vilbergen, Hierta, Norrköping, Sweden
[4] Department of Computer and Information Science, Linköping University, Linköping, Sweden
[5] Center for Medical Image Science and Visualization (CMIV), Linköping University, Linköping, Sweden
[6] Department of Radiology, Region Östergötland, Linköping, Sweden
[7] Primary Healthcare Center Kärna, Region Östergötland, Linköping, Sweden
[8] Primary Healthcare Center Ekholmen, Region Östergötland, Linköping, Sweden
[9] Department of Cardiology, Region Östergötland, Linköping, Sweden
[10] Department of Clinical Physiology, Region Östergötland, Linköping, Sweden
[11] Wallenberg Centre for Molecular Medicine, Linköping University, Linköping, Sweden

Introduction: Clinical risk scores for coronary artery disease in patients with chest pain and dyspnea are insufficiently studied in primary care. The pre-test probability of significant coronary stenosis can be estimated from age, sex and main symptom typicality. Adding cardiovascular risk factors in scoring can improve prediction in patients selected at a secondary care level.
Aim: To evaluate the pre-test probability score and additional cardiovascular risk factors for predicting coronary artery disease in primary care.
Methods: We conducted a retrospective cross-sectional study of patients who underwent coronary computed tomography angiography after referral from primary care physicians including pre-test probability from all 44 primary healthcare centres in Region Östergötland, Sweden. Referral data were complemented with patient risk factors from a national care registry. The outcome was >50% coronary artery stenosis. Discrimination was compared using likelihood ratio test.
Results: Significant stenosis was found in 57 (18%) of 315 patients. Compared with pre-test probability alone (test area-under-the-curve 0.738), the best performing combination of predictors (test area-under-the-curve 0.789) resulted in significantly improved discrimination. Age and dyspnea (vs. chest pain) were strong predictors. Adding only cardiovascular risk factors to pre-test probability significantly improved discrimination (test area-under-the-curve 0.742).
Conclusions and clinical implication: The study shows that pre-test probability estimates in primary care effectively predicts significant stenosis on coronary computed tomography angiography. We observed a minor improvement in discriminative performance from adding cardiovascular risk factors, suggesting it may not be clinically meaningful in primary care.

Model predictors	Method	Area-under-the-curve (AUC), mean	Significant difference in mean AUC indicated by #
Pre-test probability (PTP)	Entered in the referral for coronary computed tomography angiography according to European Society of Cardiology 2013. Based on sex, age, and chest pain characteristic or dyspnea. Excluding patients with PTP figures unavailable for sex and age.	0.74	Reference model
PTP, BMI, smoking, hypertension, diabetes mellitus, no lipid-lowering drugs	Manual variable selection full	0.74	#
PTP, smoking, hypertension, diabetes mellitus, no lipid-lowering drugs	Manual variable selection focused	0.74	#
PTP, age, BMI, diabetes mellitus, no lipid-lowering drugs, dyspnoea (vs. chest pain)	Stepwise regression variable selection	0.79	#
PTP, age and sex	Manual variable selection	0.76	#
PTP, age, sex, dyspnoea (vs. chest pain)	Manual variable selection	0.77	#
Age and sex	Manual variable selection	0.72	Non-nested to reference
Age, sex, no lipid-lowering drugs, dyspnoea (vs. chest pain)	Stepwise regression variable selection and a priori omitting PTP and retaining age and sex	0.75	Non-nested to reference

Socioeconomic Status and Mortality after Acute Hip Fracture Surgery in Sweden: A Registry-Based Epidemiological Study.

Social and structural determinants of health
Health Equity

Rasmus Åhman[1, 2]
Måns Thulin[3], Tom EF Abbott[4], Alexander J Fowler[4], Anna Oscarsson Tibblin[2], Karin Björnström Karlsson[2], Michelle S Chew[2, 5]
[1] Råslätt Primary Health Care Centre, Jönköping, Region Jönköping County, Sweden
[2] Department of Anaesthesia and Intensive Care, Biomedical and Clinical Sciences, Linköping University, Linköping, Sweden
[3] Department of Mathematics, Uppsala University, Uppsala, Sweden
[4] Translational Medicine and Therapeutics, William Harvey Research Institute, Queen Mary University of London, London, UK
[5] Department of Perioperative Medicine and Intensive Care, Division of Anesthesiology and Intensive Care, CLINTEC, Karolinska Institutet, Sweden

Introduction: The impact of socioeconomic status (SES) on outcomes after hip fracture surgery remains unclear. As the population ages and hip fracture incidence rises, potential outcome disparities become increasingly important.

Aim: To assess the association of various indicators of SES and mortality after acute hip fracture surgery.

Methods: Cross-linked, registry-based epidemiological cohort study of patients undergoing acute hip fracture surgeries in Sweden 2015–2020. Co-primary outcomes were all-cause 30-day and two-year mortality. SES was defined using four indicators: level of education, income, residential area and use of social services. Attributable fractions (AF) were calculated to quantify the contribution of SES factors to mortality differences.

Results: 58 641 patients were included (median age 83 [IQR 75–89], 66.1% women). Crude 30-day and two-year mortality rates were 7.9% (95% CI 7.7–8.1) and 35.3% (95% CI 34.9–35.7). Level of education showed the strongest association with mortality, exerting a stepwise increase most pronounced for two-year mortality: adjusted odds ratio 1.16 (95% CI 1.08–1.24) for 10–12 yr, 1.18 (95% CI 1.07–1.30) for 9 yr, and 1.24 (95% CI 1.15–1.33) for <9 yr vs. >12 yr (all $p<0.001$). The AF of level of education for two-year mortality was 13.8% (SE 0.023). Other SES factors, except residential area, were also associated with mortality, although their associations were less substantial.

Conclusions and clinical implication: Individual SES contributes significantly to short- and long-term death after acute hip fracture surgery in Sweden, with level of education being the most

important contributor. This highlights a need to consider individual-level socioeconomic factors throughout hip fracture care, including out-of-hospital care and long-term follow-up.

Task Shifting and Professional Boundaries: Reflections on Generalist Competencies and Musculoskeletal Disorders

Task shifting
Health services

Kenneth Chance-Larsen[1]
[1] Western Norway University of Applied Sciences

Introduction: This presentation offers a reflective discussion informed by a doctoral thesis examining task shifting for musculoskeletal disorders between GPs and physiotherapists. With aging populations and increasing multimorbidity, traditional primary care models face sustainability challenges. However, questions persist about competency requirements, continuity of care, and professional boundaries.
Aim: To stimulate critical reflection on tensions inherent in task shifting, particularly regarding generalist versus specialist competencies, and implications for managing patients with musculoskeletal disorders as part of complex multimorbidity.
Methods: Drawing on a qualitative interview study with Norwegian GPs and physiotherapists, relevant literature, and the broader thesis examining framework development and workforce training in England, this presentation explores financial and structural barriers to collaboration, perceptions of professional competency, the continuity of care discourse, and generalist competency requirements for physiotherapists in undifferentiated primary care presentations.
Results: The empirical material reveals professionals navigating competing demands as patient advocates, gatekeepers, and economic actors. Both competition and cooperation coexist between professions. Critical questions emerge: To what extent must physiotherapists develop generalist competencies to become safe first contact practitioners for undifferentiated presentations? Can team-based continuity models serve complex multimorbid patients better than single-provider models? How do we balance evidence-based practice with system constraints and professional interests?
Conclusions and clinical implication: Successful task shifting requires moving beyond simplistic competency comparisons toward systemic thinking about team-based care, mandatory professional development, and organizational structures that enable rather than hinder collaboration. The question "Should we all become generalists?" opens necessary dialogue about how primary care must evolve to meet contemporary challenges.

Transparency in Science Reporting: Bridging the Gap between Evidence and Patient Care

Patient centered care
Clinical General Practice
Joachim Sturmberg[1]
Thomas Kühlein[2]
[1] University of Newcastle, Australia
[2] Erlangen University, Germany

Introduction: Science should aim to methodologically address and integrate complexity as much as possible and ensure that the gap between the simplification of knowledge and the complexity of reality is made visible and transparent in its reporting. General practitioners require transparent research evidence to supports real-world, patient-centred decision-making. However, medical publications frequently prioritise statistical significance, surrogate endpoints, and relative rather than absolute risks, failing to communicate outcomes that are meaningful and relevant for individual patients.
Aim: To develop a transparency framework for reporting research findings that help general pracitioners to guide shared decision-making.
Methods: A detailed review and critical analysis of reporting in randomised controlled trials, clinical guidelines, and medical publications covering 7 different domains of healthcare interventions.
Results: Key findings include: large sample sizes are often used to demonstrate statistically significant but clinically marginal differences, while composite endpoints can obscure true relevance for patients. Based on these findings, a transparency framework was developed to ensure clear communication of study outcomes – including patient context, absolute benefits and harms, and explicit reporting of uncertainties – to better inform clinicians and patients.
Conclusions and clinical implication: Bridging the gap between research and everyday care demands that researchers, editors and publishers embrace uncertainty and prioritise transparency. The framework offers actionable steps, though successful adoption will depend on broader cultural and institutional change.

Transparent reporting of research evidence is essential for ethical, well-informed patient care that honours our profession's first commitment – do no harm. Adoption of this framework can restore trust, improve clinical relevance, and advance informed, shared decision-making in clinical care.

Continuity in a fragmented health care system – organizational and individual determinants

Social and structural determinants of health
Health Equity

Emil Johansson[1]
Hálfdán Pétursson[1, 2], Jörgen Månsson[1], Lina Maria Ellegård[3, 4], Gustav Kjellsson[1]
[1] Public Health and Community Medicine, University of Gothenburg, Sweden
[2] Dept. of Family Medicine, University of Iceland, Iceland
[3] Department of Economics, Lund University
[4] Department of Economics and Business Law, Kristianstad University

Introduction: Continuity of care is a core attribute of primary care, associated with health outcomes, mortality, and use of healthcare resources. In contexts like the Swedish, with extensive provider choice and fragmented care-seeking, achieving continuity is challenging. Identifying organisational and individual determinants of continuity is crucial to guide reforms.
Aim: To examine how individual characteristics and primary care center (PCC) features are associated with relational continuity measured by the Continuity of Care Index (CoCI), and to compare continuity within PCC with total continuity across the primary care system.
Methods: Retrospective cohort study using linked administrative register data covering in-person physician visits in primary care among residents in Region Skåne, Sweden. CoCI was based on all primary care physician visits 2017-2019. Associations between individual- and PCC-level charachteristics and continuity were estimated with linear regression models.
Results: 349,661 individuals and 172 PCCs were included. Mean CoCI was 0.24 for total continuity and 0.28 within PCCs. Physician turnover was the strongest determinant of continuity, with CoCI difference of 0.11 between the lowest and highest quartile, followed by patient age, having chronic conditions, PCC size, and private ownership. Individuals with higher socioeconomic status and non-Western background had lower total continuity, largely explained by more fragmented care-seeking. PCC features was more strongly associated with continuity than patient characteristics.
Conclusions and clinical implication: Relational continuity is mainly shaped by organizational factors. Fragmented care-seeking among certain patient groups reduces total continuity but does not indicate weaker within-PCC relationships. Policies that strengthen workforce stability and support PCCs serving disadvantaged populations are needed to improve continuity.

Clinical Presentation and Management of Lower UTI in Men in Primary Health Care. An analysis of medical records

Infections
Clinical General Practice

Helena Kornfält Isberg[1, 2]
Mia Tyrstrup[1, 2], Katarina Hedin[1, 3, 4], Anna Moberg[4]
[1] Department of Clinical Sciences, Family Medicine and Community Medicine, Lund University, Malmö, Sweden
[2] Office for Primary Care, Skåne University Hospital, Lund, Sweden
[3] Futurum, Region Jönköping County, Jönköping, Sweden
[4] Department of Health, Medicine and Caring Sciences, Linköping University, Linköping, Sweden

Introduction: Urinary tract infection (UTI) is a common indication for antibiotic prescribing in primary health care (PHC), and approximately 20% of UTIs occur in men, with incidence increasing with age. Despite Swedish guidelines recommending narrow-spectrum antibiotics as first-line treatment for lower UTI (LUTI) in men, broad-spectrum agents are still frequently prescribed. Evidence on guideline adherence and resistance patterns in men treated in PHC is limited.
Aim: To describe the clinical presentation and management of men with lower urinary tract infection in primary health care, assess adherence to guidelines for empirical antibiotic therapy, and characterize microbiological findings in urine cultures.
Methods: This retrospective chart review included men aged 18 years or older diagnosed with LUTI at publicly operated PHC centres in Region Skåne, Sweden.
Results: A total of 141 men (median age 71 years) were included. Antibiotics were prescribed in 93% of cases; 61% received first-line narrow-spectrum antibiotics and 39% broad-spectrum agents. Urine cultures were obtained in 73%, with bacterial growth in 44%. *Escherichia coli* was the most common pathogen, and one third of isolates showed resistance to at least one antibiotic. Overall guideline adherence was 47%. Reconsultations occurred in 29%, most often due to persistent symptoms.
Conclusions and clinical implication: Guideline adherence for LUTI in men in PHC was suboptimal, with frequent use of broad-spectrum antibiotics and inconsistent urine culture sampling. Increased use of narrow-spectrum antibiotics, supported by routine urine cultures and improved guideline implementation, may reduce antibiotic pressure and antibiotic resistance. Further PHC-based studies are needed to support safe and effective management of LUTI in men.

Couple relationship problems in general practice: A multiple methods study of prevalence and consultation experiences.

Patient centered care
Clinical General Practice

Siri Dalsmo Berge[1]
Mette Brekke[2], Eivind Meland[3], Thomas Mildestvedt[3]
[1] General Practice Research Unit, NORCE Research
[2] Department of General Practice, University of Oslo
[3] Department of Global Public Health and Primary Care, University of Bergen

Introduction: Couple relationship quality is linked to physical and mental health, yet the role of general practitioners (GPs) in addressing couple relationship problems remains underexplored.
Aim: To investigate the prevalence of couple relationship issues in general practice, identify patient characteristics associated with these discussions, and explore the consultation experiences of both patients and GPs.
Methods: The study applied a multiple methods design, including (1) a cross-sectional survey among 2178 patients in Norwegian general practice clinics, (2) focus group interviews with 18 GPs, and (3) individual interviews with 18 patients who had discussed their relationship with their GP. Quantitative data were analysed using descriptive statistics and regression models, and qualitative data were analysed thematically using systematic text condensation.
Results: One in four patients had discussed couple relationship problems with their GP, and one in three expressed a desire to do so. Patients with a history of divorce, poor self-rated health, low relationship satisfaction, and a perceived health impact of their relationship more often brought up these issues. GPs described addressing relationship issues through pragmatic case-finding, often navigating conceptual and role confusion. Despite this, they relied on their clinical judgement and continuity of care to address concerns meaningfully. Patients valued a biopsychosocial approach, especially when GPs acknowledged the relevance of relational issues and encouraged self-reflection and responsibility.
Conclusions and clinical implication: The findings suggest that GPs play an important, if informal, role in addressing relational health. Improved training and support may enhance early intervention and the therapeutic potential of GP-patient conversations about relationships.

Tinkering with weight-loss medication in general practice: Navigating clinical, social and sustainable care

Obesity and type 2-diabetes
Clinical General Practice

Sissel Due Jensen[1, 2]
Annelli Sandbæk[1, 2, 3, 4], Jens Meldgaard Bruun[2, 4, 5], Pernille Andreassen[5]
[1] Department of Public Health, Aarhus University, Aarhus, Denmark
[2] Steno Diabetes Center Aarhus, Aarhus University Hospital, Aarhus, Denmark
[3] Research Unit of General Practice, Aarhus, Denmark
[4] Department of Clinical Medicine, Aarhus University, Aarhus, Denmark
[5] Danish National Center for Obesity, Aarhus, Denmark

Introduction: The rapid introduction of semaglutide, a GLP-1 receptor agonist promising significant weight loss, has generated intense public interest and growing demand in primary care. Its fast uptake illustrates how pharmaceutical innovation, public health ambitions, and cultural body ideals converge in clinical encounters, raising questions about how general practitioners (GPs) can navigate new therapeutic possibilities while supporting sustainable and patient-centred care.
Aim: To examine how patients and healthcare professionals navigate semaglutide treatment in everyday general practice, and how "tinkering" practices shape clinical, ethical, and communicative aspects of care.
Methods: The study draws on three months of ethnographic fieldwork in three Danish general practices (spring 2023), including participant observation of consultations, informal interactions, and prescribing practices. Field notes were analysed to conceptualize semaglutide encounters as ongoing tinkering care practices, where dosage, timing, and continuation are continuously adjusted in response to side effects, financial constraints, and patients' lived circumstances.
Results: Patients frequently expressed strong commitment to continuing semaglutide, even when treatment disrupted daily routines. GPs neither simply endorsed nor discouraged use; instead, they engaged in careful balancing work, managing patient expectations, negotiating moral concerns related to weight loss motivations, and evaluating acceptable discomfort or risk. Tinkering extended beyond pharmacological adjustment to include communication about stigma, conflicting understandings of overweight (biological, behavioural, sociocultural), and maintaining trust in the consultation.
Conclusions and clinical implication: Prescribing semaglutide in general practice involves complex clinical and social negotiations. Sustainable integration of weight-loss medication requires support for clinical decision-making and communication strategies that address stigma and diverse patient experiences, enabling context-sensitive, ethically grounded, and resource-conscious care.

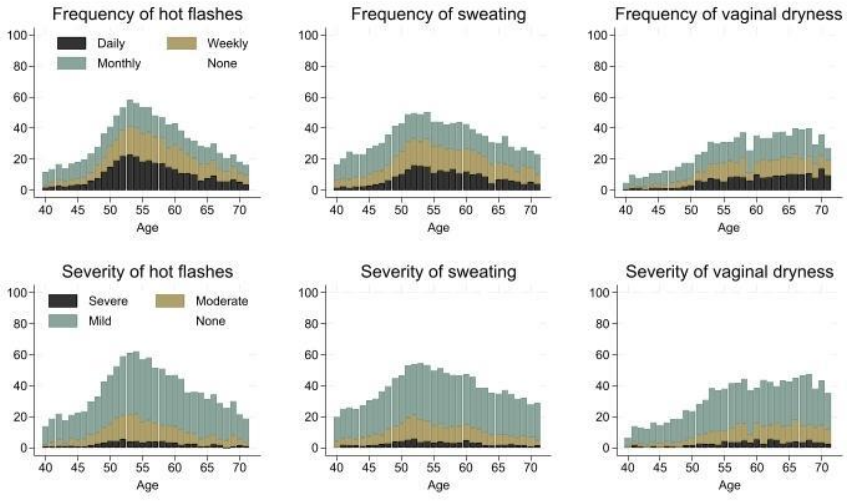
28 years follow-up of menopausal symptoms – The Hordaland Women's cohort

Women's health
Clinical General Practice
Thomas Omdal[1]
Steinar Hunskår[1], Elisabeth Strømme[1]
[1] Department of Global Public Health and Primary Care, University of Bergen

Introduction: Hot flashes, increased sweating (including night sweats) and vaginal dryness are the common and typical symptoms during menopause. Recent studies have suggested that typical symptoms persist 10-15 years after menopause.
Aim: To investigate self-reported frequency and severity of hot flashes, sweating, and vaginal dryness in women from their 40s to their late 60s and early 70s.
Methods: The Hordaland Women's Cohort recruited 2230 women in 1997 - 1999 and is a long lasting observational study of women's health issues based on biennial questionnaires, including menopausal symptoms.

The retention rate has been high (70-90 % in each wave) and in 2025, 1334 women replied. Self-reported assessment of the frequency and severity of the three menopausal symptoms was reported on a four-point Likert scale (None to Daily and None to Severe).
Results: We observed a peak for hot flashes and sweating around age 53 with a gradual decline thereafter, approximately 30 % were still experiencing symptoms at 65 years of age. The frequency of vaginal dryness had a later peak at around age 60 and seemed to reach a plateau (figure 1).

The severity of the symptoms showed the same distribution, but the symptoms were predominately reported as mild, with a peak around 53 years of age in intensity and severity. Use of menopausal hormone therapy (local or systemic) is not adjusted for.
Conclusions and clinical implication: Self-reported menopausal symptoms were found to persist into the 60s and even 70s in about one in five women, and their severity is generally considered mild. The trajectories of vasomotor and genitourinary symptoms differ.



Aligning Digital Convenience: A Grounded Theory of Telehealth, AI, and Clinical Craft in Primary Care

E-health and telemedicine
Digitalization and Technology

Hans Thulesius[1, 2, 3, 4]
Eva Arvidsson[5], Ulrika Sandén[1], Odi Stummer[6], Jens Wilkens[1], Björn Ekman[1]
[1] Lund University, Sweden
[2] Region Kronoberg, Sweden
[3] Linnaeus University, Sweden
[4] Riga Stradins University, Latvia
[5] Region Jönköping, Sweden
[6] University of Halle, Germany

Introduction: Telehealth has expanded rapidly in primary care, accelerated by the COVID-19 pandemic and amplified by AI-supported documentation and decision support. While patients value accessibility and convenience, many general practitioners express ambivalence.
Aim: To develop a grounded theory explaining how GPs manage the tension between the value of telehealth including AI support and the preservation of medicine as an art based on science.
Methods: Classic grounded theory methodology using constant comparison, theoretical memoing and sorting.
Data were sampled across multiple sources, including 24 interviews with key stakeholders in Swedish health care, informal interviews, professional talks, and extensive documentary material - scientific literature, policy documents, professional texts, newspaper articles etc.
Results: The main concern for GPs is to maintain clinical judgement and professional meaning while responding to escalating demands for speed, accessibility, and digital convenience. This may be partly resolved by Aligning Digital Convenience with clinical craft by embedding digital tools within existing care structures, blending remote and physical consultations, and recalibrating power symmetry with patients. Telehealth reduces traditional elsewhereism—the unavailability of expertise in time and place—but introduces new tensions related to over-medicalisation, loss of embodied cues, and a mismatch between patient enthusiasm for telehealth and clinicians' conditional acceptance.
Conclusions and clinical implication: Telehealth and AI do not challenge primary care through technology itself, but through the power of convenience. Sustainable primary care depends on clinicians' ability to align convenience with professional judgement, relational care, and embodied knowledge. Telehealth is not a replacement for clinical craft but a tool that should be aligned into blended care models.

A seldom-heard voice: Insights from the infrequent CME-user

Lifelong learning and CPD strategies
Continuous Professional Development (CPD)

Helle Ibsen[1]
Linda Juel Ahrenfeldt[1], Jens Søndergaard[1], Niels Kristian kjær[1]
[1] Research Unit of General Practice, Department of Public Health, University of Southern Denmark, Odense-Esbjerg

Introduction: General practitioners (GPs) are obligated to engage in Continuous Medical Education (CME) to deliver high-quality, evidence-based care. CME is essential for patient care, GP wellbeing, and healthcare expenditures. However, 13% of Danish GPs did not use their CME reimbursement in 2024.
Aim: Our aim is to uncover barriers to and motivations for CME, and to reveal attitudes towards CME formats, with a specific focus on infrequent users.
Methods: The study included all 3,257 GPs in Denmark. An electronic questionnaire was developed based on interviews with 10 Danish GPs who had not used CME reimbursement in two years. Barriers and motivational factors were quantified. Latent Class Analysis (LCA) was used to stratify GPs by perceived barrier patterns. Descriptive statistics described differences in motivational factors and attitudes towards CME formats. Interviews and free-text comments were analyzed using systematic text condensation.
Results: The response rate was 40% including 176 infrequent CME users. Singled-handed and male GPs were slightly overrepresented among infrequent users. Based on the LCA, we identified underlying patterns in barriers that tended to co-occur. The analysis revealed three distinct groups of GPs who did not use all their reimbursement for CME: GPs from clinics with no tradition for CME (17%); GPs who used time on professional work outside clinic (43%); and GPs who were personally or professionally affected (40%).
Conclusions and clinical implication: Differences in perceived barriers, motivational factors, and attitudes towards CME formats are used to describe the infrequent user. These insights will guide the targeting of future CME initiatives to better address infrequent users.

ADVERSE CHILDHOOD EXPERIENCES ARE LINKED TO METABOLIC DISTURBANCES IN CHILDREN WITH OBESITY

Care for children and adolescents
Clinical General Practice

Tiina Pajuvirta[1]
Pia Keiski[2, 3], Eija Paavilainen[4, 5], Kalle Kurppa[1, 6, 7], **Linnea Aitokari**[1, 6, 8]
[1] Tampere Center for Child, Adolescent and Maternal Health Research, Tampere University and Tampere University Hospital, Tampere, Finland
[2] Tampere University, School of Social Sciences, Tampere, Finland
[3] Tampere University of Applied Sciences, Applied Research Center, Tampere, Finland
[4] Faculty of Social Sciences, Health Sciences Unit, Nursing Science, Tampere University
[5] Etelä-Pohjanmaa Wellbeing Services County, Finland
[6] Celiac Disease Research Center, Tampere University, Tampere, Finland
[7] University Consortium of Seinäjoki, Seinäjoki, Finland
[8] Valkeakoski Social and Healthcare Center, Wellbeing Services County of Pirkanmaa, Valkeakoski, Finland

Introduction: Adverse childhood experiences (ACEs) have been linked to childhood obesity, but their association with metabolic comorbidities remains unknown.
Aim: We examined the relationship between ACEs and metabolic dysfunction in a large cohort of children seeking healthcare for obesity.
Methods: Data from 856 children (median 11, range 2-16 years, 43% girls) were obtained from patient records at Tampere University Hospital and primary care units of Tampere. Metabolic dysfunction-associated steatotic liver disease (MASLD) was diagnosed by the clinician in charge and dyslipidemia and prediabetes were defined retrospectively. Logistic regression model, adjusted for child's age, sex and BMI Z-score, was applied to assess associations between metabolic abnormalities and ACEs.
Results: Overall, 48% of the children had no ACEs, while 33% had 1-2, 11% 3-4 and 8% 5 or more concurrent ACEs. The most frequent ACEs were parental divorce (32%), family mental health issues (21%) and low income (13%). Higher number of simultaneous ACEs were significantly associated with MASLD (OR 1.35, 95% CI 1.06-1.71, p=0.014) and increased low-density-lipoprotein (LDL) cholesterol (1.29, 1.07-1.57, p=0.009) and there was tendency for prediabetes (1.18, 1.00-1.40, p=0.053) in a regression model considering child's age, sex and BMI-Z. There was no association between ACEs and hypertension or other lipids. Specific ACEs associated with MASLD, and elevated LDL cholesterol are presented in Figure.
Conclusions and clinical implication: ACEs were significantly associated with MASLD and elevated LDL cholesterol in children with obesity. Although prospective studies are needed to confirm causality, these findings emphasize the role of family psychosocial and socioeconomic factors in treatment and prevention of obesity-related metabolic comorbidities.

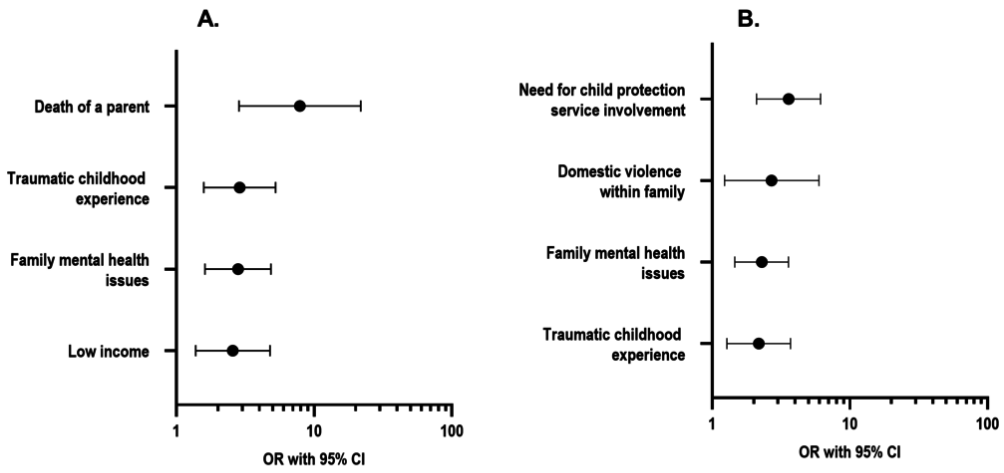


Figure. Associated factors for MASLD (A) and increased LDL cholesterol (B) in 856 children with obesity, adjusted with child's age, sex and BMI Z-score.

Balanced responsiveness - how patients diagnosed with cancer navigate uncertainty, systems, and emotions

Cancer
Clinical General Practice
Ghassan Guorgis[1, 2]
Serap Cifcili[1, 3], Jelena Danilenko[1, 4], Seyma Handan Akyon[1, 5], Michael Harris[1, 4, 6], Lars Harrysson[1, 7], Robert Hoffman[1, 8], Didem Kafadar[1, 9], Marcello Mangione[1, 10], Aikaterini Metochianaki[1, 11], Bernardino Oliva Fanlo[1, 12], Andris Pūce[1, 4], Dimitra Iosifina Papageorgiou[1, 11], Liina Pilv[1], Stella Ploukou[1, 11], Vija Silina[1, 4], Emmanouil Smyrnakis[1, 11], Hans Thulesius[1, 4, 7, 13, 14], Marija Zafirovska[1, 15], Ulrika Sandén[1, 7]
[1] Örenäs Research Group
[2] Linköping University, Sweden
[3] Istanbul Marmara University, Türkiye
[4] Riga Stradins University, Latvia
[5] Sincan Education and Research Hospital, Ankara, Türkiye
[6] University of Bath, England
[7] Lund University, Sweden
[8] Tel Aviv University, Israel
[9] Istanbul University-Cerrahpasa, Türkiye
[10] Health Local Authority, Palermo, Italy
[11] Aristotle University of Thessaloniki
[12] Primary Care Management Research Unit of Mallorca, Spain
[13] Linnaeus University, Sweden
[14] Region Kronoberg, Sweden
[15] University of Ljubljana, Slovenia

Introduction: Patients diagnosed with cancer often describe fragmented diagnostic pathways and prolonged uncertainty. There is a lack of research explaining how patients act on and relate to their symptoms in the time leading up to their cancer diagnosis.
Aim: To develop an explanatory grounded theory of how patients with cancer respond to the initial diagnostic uncertainty.
Methods: Classic grounded theory analysis of 85 patient narratives from Greece, Italy, Latvia, North Macedonia, Spain, Sweden, Türkiye. Data were iteratively coded, compared, and theoretically sampled to identify a core process explaining patient behaviour during the pre-diagnostic phase.
Results: Balanced Responsiveness explains how patients continuously balance action and restraint while seeking diagnostic clarity. This process comprised three interrelated strategies: **Forced self-managing**, where patients become de facto coordinators of care, navigating referrals, delays, and workarounds ("system navigation"); **Personal negotiating**, including self-diagnosis and calibration of how symptoms and emotions are presented to clinicians; **Emotional meaning-making**, through which fear, denial, guilt, and intuition both obstruct and trigger action. Patients could describe diagnostic trajectories as disorientating, likened to being "tumbled in a dryer," where loss of control, fragmented communication, and emotional strain coexist. Across countries, responsibility for coordination could be experienced as silently transferred from system to patient.

Conclusions and clinical implication: Patients are not passive in the cancer diagnosis process but engage in complex adaptive work to remain balanced while responsive. Recognising **balanced responsiveness** can help clinicians reduce diagnostic disorientation by offering continuity, structured coordination, and emotional validation: shortening time to diagnosis, without increasing over-investigation.

Socieoeconomic Gradients in Hypoglycemic Drug Prescription

Obesity and type 2-diabetes
Clinical General Practice
Albin Alsiö[1, 2]
Dennis Nordvall[2], Andreas Stomby[1, 2]
[1] Department of health, medicine and caring sciences, Linköping University, Sweden
[2] Region Jönköping County, Sweden

Introduction: The choice of hypoglycaemic drug treatment for patients with type 2 diabetes (T2D) should be based on glucose control and comorbidities. However, previous research suggests that socioeconomic factors may influence prescription patterns.
Aim: We hypothesized that there is a socioeconomic gradient associated with prescriptions of hypoglycaemic drugs in a Swedish primary health care setting.
Methods: All patients with a registered T2D diagnosis between 2020-2023 in Region Jönköping County were included (n = 24993). Clinical data on comorbidities and prescriptions from electronic patient files were merged with socioeconomic data from Statistics Sweden, including income, education and country of birth. Multivariable regression models were fitted separately for prescriptions of SGLT-2 inhibitors, GLP-1 receptor agonists, DPP-4 inhibitors, metformin, and insulin, adjusting for hypertension, cardiovascular disease, heart failure, cerebrovascular disease, renal function, age and sex.
Results: Prescription rates of SGLT-2 inhibitors were independently negatively associated with income level ($p<0.001$) as well as education ($p<0.01$). GLP-1 receptor agonist prescriptions were independently negatively associated with income and education ($p<0.001$). For DPP4-inhibitors, metformin and insulin, significant independent negative associations were found for income ($p<0.001$ for all).
Conclusions and clinical implication: Socioeconomic factors were negatively associated with prescription patterns of hypoglycaemic drugs after adjusting for age, sex and cardiovascular, renal and cerebral comorbidities. Given that unfavourable socioeconomic factors increase risk for CVD, this poses a possibility of more efficient and equal prescription to high-risk individuals, beneficial both on an individual level and on a health-economic basis.

Predicting mortality during heatwaves through the application of machine learning on large register data

Other
Clinical General Practice
Klas Ytterbrink Nordenskiöld[1, 2]
Axel C Carlsson[1, 2], Caroline Wachtler[1, 2], Christofer Åström[3]
[1] Karolinska Institute, Department of Neurobiology, Care Sciences and Society, Division of Family Medicine and Primary Care, Alfred Nobels allé 23, 141 52 Huddinge, SE
[2] Stockholm Region, Academic Primary Care Center, Solnavägen 1E, 113 65 Stockholm, SE
[3] Department of Public Health and Clinical Medicine, Section of Sustainable Health, Umeå University, SE

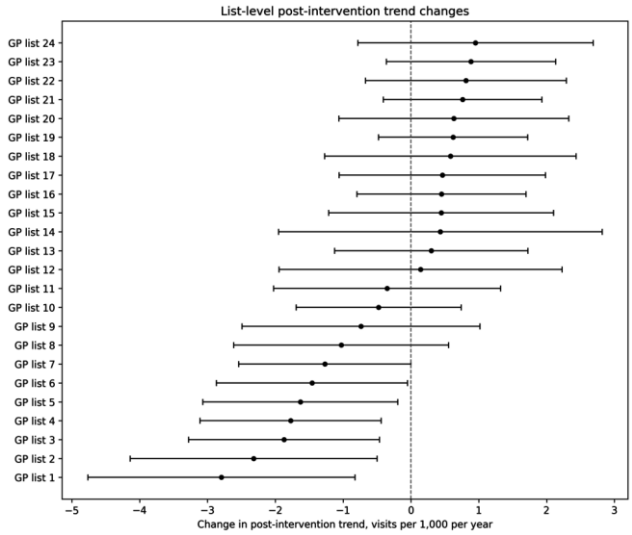
Introduction: With rising global temperatures, the number of individuals exposed to heatwaves (HWs) is increasing. Although older individuals have a higher risk of mortality during HWs, who is most vulnerable remains unclear.
Aim: This study aims to develop a machine learning-based prediction model for death during HW using healthcare data, to enable preventive interventions.
Methods: We included diagnoses, number of healthcare visits, and dispensed medications for all individuals ³ 65 years of age in the Stockholm Region (2010 to 2024). HWs were classified by the average of the maximum daily temperature of 4 consecutive days at Observatorielunden, as moderate (above the 95th percentile), or intense (above the 99th percentile). Optimal temperature (OT) was defined as the 85th–90th percentile. Stochastic Gradient Boosting models, stratified by nursing home status, were used to predict death during HWs compared to OT.
Results: 274 days were classified as moderate, and 55 as intense HW. Mean daily mortality ranged from 32.7 during OT to 39.8 during intense HW, totalling 18 240 deaths. Model AUC-ROC varied from 0.56 (community dwellers, moderate HW) to 0.67 (nursing home residents, intense HW). Platelet inhibitors, B12/folic acid, doctors' visits (months 1–12), paracetamol, age, diuretics, beta-blockers, and ACE/ARB were the most influential variables. All variables exhibited non-linear ORME–exposure relationships, with ORME values ranging from 0.3 to 5.2.
Conclusions and clinical implication: Machine learning identified novel associations between medication dosages and healthcare interactions related to the risk of death during HW. These findings add knowledge to the ongoing work with preventive strategies concerning HWs.

Interrupted Time Series Analysis of a Named GP Model and Urgent Care Use in Finnish Primary Care

Policy, governance, and healthcare reform
Health services

Waltteri Tuompo[1]
Markku Timonen[1], Juha Auvinen[1]
[1] Research Unit of Population Health, University of Oulu

Introduction: Continuity of care has been linked to lower emergency service use, but in Finnish primary care limited physician resources lead to extensive same-day urgent walk-in visits with little continuity. In February 2023, 47 138 residents were assigned to 24 named general practitioners (GPs) at the Tuira Health Centre, Oulu. Non-urgent care was directed to named GPs, while urgent care pathways remained unchanged.
Aim: To examine whether assignment to named GPs affected trends in urgent primary care visits over one year, and whether prior continuity modified this effect.
Methods: Weekly urgent visit rates per 1,000 listed patients were analyzed using interrupted time series models with Newey–West corrected standard errors. Post-intervention effects were estimated relative to counterfactual projections based on pre-intervention trends. GP lists were classified according to statistically significant post-intervention trend changes, and univariable analyses explored predictors of favorable trends.
Results: Seven of 24 GP lists showed a significant post-intervention decline in urgent visit trends, reflecting prevention of growth rather than absolute reductions (trend-only relative reduction −22.5%, 95% CI −25.3 to −20.1). Lists without favorable trend changes experienced increased urgent visits during follow-up. Higher pre-intervention contact rates between patients and their assigned named GPs were associated with more favorable post-intervention trends.
Conclusions and clinical implication: The effects of the named GP model on urgent visits were heterogeneous. Lists with stronger pre-existing continuity were protected against growth in urgent visits, whereas lists without continuity did not benefit. These findings suggest that reductions in urgent care require sustained relational continuity rather than assignment alone.


List-level post-intervention trend changes
GP list 24
GP list 23
GP list 22
GP list 21
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GP list 19
GP list 18
GP list 17
GP list 16
GP list 15
GP list 14
GP list 13
GP list 12
GP list 11
GP list 10
GP list 9
GP list 8
GP list 7
GP list 6
GP list 5
GP list 4
GP list 3
GP list 2
GP list 1
−5
−4
−3
−2
−1
0
1
2
3
Change in post-intervention trend, visits per 1,000 per year

Patients' Experiences with Using 1177-direkt for Chat-Based Consultation in Primary Health Care in Sweden

E-health and telemedicine
Digitalization and Technology
Felicia Gabrielsson-Järhult[1]
Sofia Kjellström[1]
[1] School of Health and Welfare. Jönköping University

Introduction: Digital health solutions, such as online platforms for patient-provider communication, are seen as promising tools to enhance service delivery efficiency. Understanding the factors that influence patients' choices regarding digital health services is essential to realizing potential efficiency gains as these services scale.
Aim: To explore patients' experiences using the digital platform 1177-direkt for chat-based consultations in Swedish primary health care, with a focus on understanding their concerns when accessing services digitally.
Methods: 2024 semistructured interviews were conducted with 23 patients across three health care regions in Sweden. Participants discussed their experiences of using *1177-direkt.* Data were analyzed thematically. In addition, a sentiment analysis was applied to categorize statements as positive, negative, or neutral, providing a complementary analytical perspective. The Unified Theory of Acceptance and Use of Technology (UTAUT) framework guided interpretation of the findings.
Results: Three main themes were identified: (1) the impact of digital technology on access to services, (2) perceived platform functionality and usability, and (3) changes in the patient–provider relationship through digital communication. Patients generally expected faster access to care through the platform; however, these expectations were frequently undermined by subsequent delays. Concerns were commonly expressed regarding the automated symptom checker, which was perceived as insufficiently nuanced and unable to adequately interpret or contextualize patient input. More personalized interactions were asked for.

Conclusions and clinical implication: Patients experienced both benefits and challenges when using digital consultations. The sentiment analysis provided additional insights. Addressing usability, time efficiency, and personalization—especially for recurrent users—appears crucial for fostering broader adoption of digital primary care services.

How do we connect with healthcare? Usage patterns and patients' experiences of primary care contacts

Communication and consultation skills
Continuous Professional Development (CPD)
Felicia Gabrielsson-Järhult[1]
Manuela Schmidt[1], Sofia Kjellström[1]
[1] School of Health and Welfare. Jönköping University

Introduction: Primary health care in Sweden is undergoing rapid transformation driven by digitalisation and the national strategy *close care*, aiming to improve accessibility, continuity, and patient involvement. The pace of change—accelerated by the COVID-19 pandemic—has exceeded the speed of evaluation and research.
Aim: To provide updated knowledge on patients' use of and experiences with digi-physical (digital and/or physical) primary care.
Methods: Combined register-based analyses of all regional primary care contacts in the counties Jönköping and Sörmland between 2020 and 2022 (approximately 677,000 residents and 7.4 million contacts) combined with 35 qualitative patient interviews from across Sweden. Quantitative results show that most contacts consist of single physical visits with physicians, that very few patients are high-frequency users, and that older adults account for a smaller share of contacts than commonly assumed. Digital care use increased during the pandemic and remains most common among younger adults, although use has expanded to additional age groups.
Results: Findings highlight six themes: accessibility, digital competence, continuity and follow-up, trust and professional interaction, shared responsibility and equity, and sustainability. Patients welcome flexible combinations of digital and physical care but emphasize the importance of continuity, timely follow-up, and being met by informed professionals. The project also identifies substantial regional differences in data registration, underscoring the need for improved data quality and access to support both care development and research.
Conclusions and clinical implication: Findings support structured digi-physical care pathways prioritizing continuity, individualized assessment beyond age, equitable access, professional competence, and improved data quality to guide evidence-based primary care development.

Impact of video service failure on triage outcomes in out-of-hours primary care: a register-based study

E-health and telemedicine
Digitalization and Technology
Katrine Bjørnshave Bomholt[1, 2]
Mette Amalie Nebsbjerg[1, 2], Claus Høstrup Vestergaard[1], Morten Bondo Christensen[1, 2], Linda Huibers[1, 2]
[1] Research Unit for General Practice, Aarhus, Denmark
[2] Department of Public Health, Aarhus University, Aarhus, Denmark

Introduction: Using video as a triage tool could optimise the patient pathway.
Aim: To evaluate the impact of video use in out-of-hours primary care (OOH-PC) telephone triage by examining how triage outcomes changed during a period with video service failure.
Methods: We conducted an observational register-based study in out-of-hours primary care (OOH-PC) in four Danish regions, using periods of video service failure as a natural randomisation mechanism. The study included all telephone triage contacts to OOH-PC call centres from April 2020 to December 2021. During video service failures, telephone triage was performed without access to video; failures were identified algorithmically based on periods without video use. The primary outcome was the proportion of contacts resulting in clinic consultations or home visits, comparing video failure periods with matched reference contacts during normal service (1:10), reported as risk ratios (RR) with 95% confidence intervals.
Results: The algorithm identified 6605 telephone triage contacts during video service failure. Compared with matched contacts during normal service, these had a 15% higher risk of resulting in a clinic consultation (RR: 1.15, 95%CI 1.09 to 1.20). This effect was primarily isolated to the year 2021 (RR: 1.23, 95%CI 1.16 to 1.31) compared with 2020 (RR: 1.05%, 95%CI 0.97 to 1.13). Video service failure did not significantly affect the risk of a home visit.
Conclusions and clinical implication: Results suggest that the unavailability of the video service is likely to significantly increase the number of clinic consultations in OOH-PC as a triage outcome. Whether this effect is likely to persist in the long term remains unclear.

A comprehensive review of how to deal with symptom-related needs and everyday life experiences in patients with RLS

Multimorbidity and complex care needs
Clinical General Practice

Elzana Odzakovic[1]
Sandra Öberg[1], Martin Ulander[2, 3], Amir Pakpour[1], Jonas Lind[4], Fredrik Lundin[5], Bengt Fridlund[6], Maria Björk[1], Amanda Hellström[7], Anders Broström[1, 2, 8]
[1] School of Health and Welfare, Jönköping University, Jönköping, Sweden.
[2] Department of Clinical Neurophysiology, Linköping University Hospital, Linköping, Sweden
[3] Department of Biomedical and Clinical Sciences, Division of Neurobiology. Linköping University, Linköping, Sweden.
[4] Section of Neurology, Department of Internal Medicine, County Hospital Ryhov, Jönköping, Sweden
[5] Department of Neurology, and Department of Biomedical and Clinical Sciences, Linköping University, Linköping, Sweden
[6] Department of Health and Caring Sciences, Faculty of Health and Life Sciences, Linnaeus University, Kalmar, Sweden
[7] Department of Health and Caring Sciences, Faculty of Health and Life Sciences, Linnaeus University, Kalmar, Sweden. Academic Primary Care, Öland, Kalmar County, Sweden. 8Kalmar County Region, Research Section
[8] Norway University of Applied Sciences, Department of Health and Caring Sciences, Norway.

Introduction: Restless Legs Syndrome (RLS) is characterized by an overwhelming urge to move the legs, often accompanied by uncomfortable sensations and significant sleep disturbance, which can impair quality of life (QoL). Initial medical assessments and treatment occur in primary health care. However, symptoms and the following impairments are difficult to manage, highlighting the need to better understand patients' experiences and treatment needs.
Aim: To comprehensively explore symptom-related needs and everyday life experiences of patients with RLS possible to be used in a primary care context.
Methods: An explorative integrative review synthesized results from eleven qualitative and quantitative Swedish RLS articles including patients, partners and practitioners (Table 1). Data were scrutinized to identify common themes related to symptom management and its impact on everyday life.
Results: Systematic reviews estimated a global prevalence of 3% among adults and confirmed substantial impairments in QoL. Qualitative studies revealed significant sleep disruption, limitations in daily functioning, and psychosocial burden, with various facilitators and barriers influencing patients' self-care and well-being. Health care professionals reported challenges in recognizing symptoms and providing individualized management. Studies using psychometric testing provided validated outcome measures for self-care behaviors (RLS Self-Care Behavior Questionnaire), eHealth literacy (eHEALS), mastery (Pearlin Mastery Scale), shared decision-making (SURE and CollaboRATE), and wellness (ETHOS Brief Index).
Conclusions and clinical implication: These findings highlight the multifaceted impact of RLS on patients' everyday lives and underscore the need for informed holistic and patient-centered RLS

treatment in primary care. Several validated PROMs are available to evaluate RLS symptoms and treatment effects.

Table 1. Overview of the steps in JU SLEEP WELL study

Number	Published articles	Steps in JU Sleep Well study
1	Broström, A., Alimoradi, Z., Lind, J., Ulander, M., Lundin, F., & Pakpour, A. (2023). Worldwide estimation of restless legs syndrome: a systematic review and meta-analysis of prevalence in the general adult population. *Journal of sleep research, 32*(3), e13783. https://doi.org/10.1111/jsr.13783	Systematic review and meta-analysis before step 1
2	Broström, A., Alimoradi, Z., Odrakovic, E., Kaldo, V., Jemelöv, S., Lind, J., Ulander, M., & Pakpour, A. (2024). Quality of life among patients with restless legs syndrome: A systematic review and meta-analysis. *Journal of clinical neuroscience : official journal of the Neurosurgical Society of Australasia, 122*, 80–91. https://doi.org/10.1016/j.jocn.2024.02.027	Systematic review and meta-analysis before step 1
3	Björk, M., Knutsson, S., Odrakovic, E., Hellström, A., Sandlund, C., Ulander, M., Lind, J., Pakpour, A. H., Broström, A., & members of the Jönköping University (JU) Sleep Well Research Group (2024). Validation of two brief instruments (the SURE and CollaboRATE) to measure shared decision-making in patients with restless legs syndrome. *Journal of sleep research, 33*(6), e14071. https://doi.org/10.1111/jsr.14071	Step 2 (Quantitative design)
4	Odrakovic, E., Allgurin, M., Jonasson, L. L., Öberg, S., Fridlund, B., Ulander, M., Lind, J., & Broström, A. (2024). Experiences of facilitators and barriers for fulfilment of human needs when living with restless legs syndrome: a qualitative study. *International journal of qualitative studies on health and well-being, 19*(1), 2348884. https://doi.org/10.1080/17482631.2024.2348884	Step 1 (Qualitative design)
5	Knutsson, S., Björk, M., Odrakovic, E., Hellström, A., Sandlund, C., Ulander, M., Lind, J., Fridlund, B., Pakpour, A., & Broström, A. (2024). The ethos brief index-validation of a brief questionnaire to evaluate wellness based on a holistic perspective in patients with restless legs syndrome. *Sleep & breathing = Schlaf & Atmung*, *28*(4), 1781–1791. https://doi.org/10.1007/s11325-024-03058-5	Step 2 (Quantitative design)
6	Hellström, A., Pakpour, A., Odrakovic, E., Björk, M., Ulander, M., Knutsson, S., Sandlund, C., & Broström, A. (2024). The psychometric properties of the Pearlin Mastery Scale in persons living with restless legs syndrome. *PloS one*, *19*(10), e0311259. https://doi.org/10.1371/journal.pone.0311259	Step 2 (Quantitative design)
7	Sköven, A., Odrakovic, E., Ulander, M., Lind, J., & Broström, A. (2025). Primary healthcare nurses' experiences of symptoms and treatment needs of patients with RLS-associated symptoms at telephone nursing - an abductive analysis based on the Four Habits communication model. *International journal of qualitative studies on health and well-being*, *20*(1), 2478687. https://doi.org/10.1080/17482631.2025.2478687	Step 1 (Qualitative design)
8	Odrakovic, E., Eliasson, A., Jansson, P., Lagergvist, M., Fridlund, B., Jonasson, L. L., Ulander, M., Lind, J., & Broström, A. (2025). Prerequisites for self-care actions in individuals with restless legs syndrome-A deductive qualitative analysis based on the COM-B model. *Journal of health psychology*, *30*(13), 4059–4074. https://doi.org/10.1177/13591053251315379	Step 2 (Quantitative design)
9	Odrakovic, E., Sundlund, C., Hellström, A., Ulander, M., Blom, K., Jemelöv, S., Kaldo, V., Björk, M., Knutsson, S., Lind, J., Pakpour, A., & Broström, A. (2025). Self-care behaviours in patients with restless legs syndrome (RLS): development and psychometric testing of the RLS-Self-care Behaviour questionnaire. *Journal of sleep research*, *34*(3), e14390. https://doi.org/10.1111/jsr.14390	Step 1 (Qualitative design)
10	Georgsson, M., Odrakovic, E., Björk, M., Kaldo, V., Jemelöv, S., Blom, K., Ulander, M., Fridlund, B., Knutsson, S., Sandlund, C., Pakpour, A., & Broström, A. (2025). Validation of the eHealth Literacy Scale Instrument in a Restless Legs Syndrome Population: Classical Test Theory and Rasch Analysis Study. *Journal of medical Internet research*, *27*, e68474. https://doi.org/10.2196/68474	Step 2 (Quantitative design)
11	Odrakovic, E., Ingelsbo Petersson, A., Lindholm Ericsson, E., Öberg, S., Jakobsson, M., Björk, M., Knutsson, S., Fridlund, B., Jonasson, L. L., Ulander, M., Lind, J., & Broström, A. (2025). Experiences of sleep problems, subsequent daytime consequences, and self-care activities used to improve sleep among patients with restless legs syndrome: a qualitative content analysis. *Journal of research in nursing : JRN*, 17449871251384535. Advance online publication. https://doi.org/10.1177/17449871251384535	Step 1 (Qualitative design)

Symposium

Safe and appropriate use of medicines in children and adolescents – Key Perspectives

Care for children and adolescents
Clinical General Practice
Ida Petersson-Schmidt
Elin Kimland, Lisa Forsberg

Introduction to the symposium: We intend to begin by addressing the current challenges, including the rising prescription of psychotropic medications, including melatonin. We will then proceed to present the clinical guidance and describe how these issues have been addressed through various public health campaigns. Following this, the floor will be open for a discussion on how these matters manifest in everyday general practice, which problems require further attention, and whether there are exemplary models for enhancing the safety of medication management.

Children constitute approximately one fifth of the population, and nearly half receive at least one prescription annually. Prescription has increased by more than 20% over the past decade, alongside a notable shift in prescribing patterns including a marked rise in the use of melatonin and other psychotropic medications. Given that primary care manages a substantial proportion of paediatric consultations, ensuring safe and appropriate pharmacotherapy early in the care pathway is crucial.
Aim of the symposium: To describe the role of the Swedish Medical Products Agency (Läkemedelsverket) in promoting the safe and rational use of medicines in children and adolescents, including the development and continual updating of clinical guidelines for paediatric pharmacotherapy.
Titles of Presentations included in the symposium: In January 2025, Läkemedelsverket established the Centre for Children and Medicines (Centrum för barn och läkemedel, CBOL) to strengthen efforts toward rational and safe medication use in paediatric populations. A national, multidisciplinary expert group updated the clinical guideline **"Säkrare ordination och läkemedelshantering till barn"** (Safer Prescribing and Medication Management in Children), integrating scientific evidence, regulatory frameworks, established clinical practice, and national and international guidelines.

Chronic pain: an overlooked but clinically relevant cardiovascular risk factor

Other
Prevention

Johan Ärnlöv[1, 2, 3]
Ann-Sofie Rönnegård[1, 2], Tessa Schillemans[3], Magnus Peterson[4], Lars Berglund[2, 5, 6]
[1] Center for Clinical Research Dalarna – Uppsala University, Region Dalarna, Sweden
[2] School of Health and Welfare, Dalarna University, Falun, Sweden
[3] Department of Neurobiology, Care Sciences and Society, Family Medicine and Primary Care Unit, Karolinska Institutet, Huddinge, Sweden
[4] Samariterhemmet Academic PHC Dept Of Public Health And Caring Sciences, Uppsala University
[5] Department of Public Health and Caring Sciences, Geriatrics, Uppsala University, Uppsala, Sweden
[6] Epistat AB, Uppsala, Sweden

Introduction to the symposium: Background:
Chronic pain is one of the most common causes of long-term disability, while cardiovascular disease (CVD) remains the leading cause of death in Sweden and globally. Despite the major public health burden of both conditions, chronic pain is rarely considered in cardiovascular risk assessment. Current clinical guidelines for pain management and CVD prevention address these areas separately, and the potential association between them receives little attention in everyday primary care practice.

Relevance to primary care:
Chronic pain and CVD are predominantly managed in primary care settings by interdisciplinary teams. Recognizing chronic pain as a potential cardiovascular risk factor may improve risk stratification, prevention, and holistic patient care.
Aim of the symposium: This symposium aims to summarize the current evidence linking chronic pain to cardiovascular risk and to present new epidemiological research that applies modern causal inference methods to enhance our understanding of this association.
Titles of Presentations included in the symposium: Content:
The symposium will cover four key topics:

1. **State-of-the-art:** A systematic review and meta-analysis of chronic widespread pain and subsequent risk of cardiovascular disease.
2. **Methodological advances:** How emulated target trial frameworks and large-scale omics approaches can strengthen causal inference in observational studies.
3. **New population-based evidence:** Findings from Swedish primary care (MIRACLE-s cohort) examining chronic pain as a risk factor for incident CVD, venous thromboembolism, and arrhythmias.
4. **Prognosis after myocardial infarction:** Results from the SWEDEHEART registry showing that self-reported pain is associated with poorer long-term outcomes following MI.

Career duration, turnover and job satisfaction of general practitioners in the Nordic countries

Leadership and organizational development
Health services

Lina Maria Ellegård[1]
Geir Godager[2], Line Bjørnskov Pedersen[3], Dorte Ejg Jarbøl[4], Hans Christian Myklestul[5], Ylva Sandström[6]
[1] Department of Economics, Lund University, Sweden and Kristianstad University, Sweden
[2] Institute of Health and Society, Department of Health Management and Health Economics, University of Oslo, Norway and Health Services Research Unit, Akershus University Hospital, Oslo, Norway
[3] University of Southern Denmark, Department of Public Health, Research Unit for General Practice & Danish Centre for Health Economics, Denmark
[4] Research Unit of General Practice, Department of Public Health, University of Southern Denmark, Denmark
[5] Norwegian Association of General Practitioners, Norway
[6] Swedish Medical Association for General Practitioners, Sweden

Introduction to the symposium: Like many other countries, the Nordics currently experience a challenge to recruit and retain general practitioners (GPs). Tackling the GP crisis requires an understanding of GPs' career paths and how the organization of primary care affects labor market choices. The Scandinavian countries have chosen different ways to organize primary care, making it interesting to view GP's labor market behavior and indicators of job satisfaction through a comparative lens. Sweden has a persistent GP shortage, extensive task-shifting and a labor market structure allowing GPs to switch workplace with relative ease. The GP density is much higher in Denmark and Norway, where most GPs are self-employed, but there is increasing heterogeneity with respect to employment contracts and the extent of task-shifting to other professions.
Aim of the symposium: The aim of this symposium is to give perspectives on GP career duration, turnover, job satisfaction and organizational determinants thereof, based on contemporary empirical research on register and survey data from Denmark, Norway and Sweden. The research presentations are followed by a panel discussion with GPs from Nordic countries.
Titles of Presentations included in the symposium:

- GP Turnover in a Multiprofessional Team-Based Primary Care System: Evidence from Sweden (Lina Maria Ellegård)
- Career Duration in General Practice in Norway (Geir Godager)
- Practice Organization and Job Satisfaction Among GPs in Denmark (Line B. Pedersen)
- Panel discussion with Dorte Ejg Jarbøl (Research Unit of General Practice, University of Southern Denmark), Hans Christian Myklestul (Norwegian Association of General Practitioners) and Ylva Sandström (Swedish Medical Association for General Practitioners).

Clinical audit as a driver for collaborative general practice research: International perspectives

Quality and safety
Health services

Ina Grønkjær Laugesen[1, 2]
Simon Graff[1, 2], Flemming Bro[1, 2], Serge Engamba[3, 4], Emma Tonner[3, 5], Stephen Woolford[3, 6], Jessica Watson[3, 7]
[1] Research Unit for General Practice, Aarhus, Denmark
[2] Aarhus University, Department of Public Health, Denmark
[3] Primary care Academic CollaboraTive (PACT), United Kingdom
[4] University of Exeter, United Kingdom
[5] Leeds Teaching Hospitals NHS Trust, United Kingdom
[6] City St George's, University of London, Population Health Research Institute, United Kingdom
[7] University of Bristol, Centre for Academic Primary Care, United Kingdom

Introduction to the symposium: Clinical audits are utilised in general practice internationally, ranging from small-scale initiatives in individual clinics to large-scale projects in research and quality improvement. While audits support quality improvement in daily clinical work, their potential as a collaborative bridge between clinical practice and research remains underexplored. This symposium addresses how audits can operate at the intersection of practice-based quality improvement and general practice research, and how collaborative approaches can generate data with both local and national impact.
Aim of the symposium: The symposium aims to foster dialogue on strategies for engaging general practitioners in collaborative audit projects that extend beyond traditional academic settings. Drawing on experiences from the UK and Denmark, it will demonstrate how audits can serve as a powerful tool for knowledge generation and research capacity building in general practice. The outcome is to showcase examples and strategies for engaging general practitioners beyond traditional academic environments in collaborative audit projects, thereby informing a broader research agenda.
Titles of Presentations included in the symposium: *1: From Practice-Level Audit to National-Level Research: The UK Primary Care Academic CollaboraTive (PACT) Model*
2: Audit as a Window into Patient Trajectories: Atrial Fibrillation Without Anticoagulation in Danish General Practice
3: Identifying Familial Hypercholesterolemia in Primary Care: Audit of High-Risk Hypercholesterolemia
4: PACT Projects: Three National Studies, One Collaborative GP Research Model
5: Your Turn: Transforming Everyday Clinical Questions into Collaborative Research Projects

The session concludes with an interactive discussion, encouraging participants to share insights on the versatility and future directions of collaborative audit approaches in general practice.

Accessibility of primary care in the Nordics: Challenges and policy responses

Policy, governance, and healthcare reform
Health services
Mette Bender[1]
Visa Väisänen[2], Sofie Vengberg[3], Geir Godager[4], Brian Klæstrup Andersen[1], **Timo Sinervo**[1]
[1] National Institute of Public Health, University of Southern Denmark
[2] Finnish Institute for Health and Welfare
[3] Uppsala University
[4] University of Oslo

Introduction to the symposium: Ensuring access to primary care is a cornerstone of the Nordic healthcare systems, providing timely, equitable, and person-centered care for all citizens. While all Nordic countries share this overarching commitment, each country has developed distinct organizational models and policies to safeguard accessibility. Despite these efforts, all countries continue to face challenges in maintaining timely and equitable access. These differences provide valuable insights into how health authorities adapt primary care to differing geographical and political contexts.
Aim of the symposium: With representatives from Denmark, Finland, Norway and Sweden, we will, present strategies for sustaining or improving access to primary care. Focusing on *organizational structures, workforce policies, digital innovations, and financing strategies*, participants will gain insights into how different countries address primary care accessibility challenges, and how these strategies could guide new approaches in other Nordic contexts.
Titles of Presentations included in the symposium:

1. *Introduction: Accessibility of Nordic primary care (M Bender)*
2. *Making primary care the hub of Swedish healthcare – Policy initiatives and challenges (S Vengberg)*
3. *The Norwegian GP scheme: Recent policies and trends (G Godager)*
4. *Danish medical deserts and aspirations of the 2024 health reform (BK Andersen)*
5. *Expanding choice in Finnish primary care: Initial findings of a national pilot (V Väisänen)*
6. *Moderated discussion: Nordic lessons in primary care access and future strategies (Chair: M Bender)*

Implementing sustainable sick leave practices in primary care

Interprofessional collaboration and team-based care
Health services
Joachim Rudling[1]
Anna Finnes[2], Magnus Röjvall[3]
[1] Praktikertjänst AB, Primary Care, Sweden
[2] Karolinska Institutet, Department of Clinical Neuroscience, Sweden
[3] Capio Proximity Care, Sweden

Introduction to the symposium: Primary healthcare holds a central responsibility in sickness certification, rehabilitation, and return-to-work (RTW) processes. Yet many systems face fragmented routines, unequal support, and limited uptake of evidence-based methods. As occupational health services cover only part of the workforce, primary care must also respond to increasing access demands, social and work-related stress, common mental disorders, and multimorbidity. These pressures highlight the need for sustainable, scalable, interdisciplinary, and team-based practices that support high-quality assessment and equitable RTW pathways.

Across Sweden, several care providers have begun to implement structured, principle-based ways of working to improve team collaboration, strengthen interprofessional behavioural- and insurance-medicine competence, and create clearer processes for work-focused assessment and early involvement of employers. Pilot data show substantial reductions in long-term sickness absence, improved care quality and access to care, and enhanced staff wellbeing. This symposium gathers these experiences together with emerging research to explore how sickness-leave management in primary care can be transformed.
Aim of the symposium: The aim is to increase understanding of how sustainable sick-leave and RTW practices can be developed, implemented, and evaluated in primary care. The presentations will highlight how integrated models and interdisciplinary collaboration can promote sustainable healthcare delivery for patients, staff, and society.
Titles of Presentations included in the symposium:

1. **Transforming sick leave practices in primary care with the model: LESS - Minimum effective sickness certification**

2. **Implementing new clinical practice for RTW - processes in primary care: Design and Early Insights from a Cluster-Randomized Trial led by Karolinska Institute**

3. **Scaling sustainable sick leave practices: Lessons from implementation in Sweden's largest private healthcare provider**

Quality of doctor–patient communication and patient safety

Other
Clinical General Practice
Anette Fischer Pedersen[1, 2]
Christian Brinck[1], Simon Graff[1], Maria Louise Køpfli[1], Svend Storm Rasmussen[1]
[1] Research Unit for General Practice
[2] Department of Public Health, Aarhus University

Introduction to the symposium: Research has demonstrated that communication between doctor and patient plays a critical role in ensuring patient safety. Much of this work has focused on misunderstandings that have resulted in medication errors and unintended nonadherence to treatment. Only a limited number of studies have investigated how communication influences the diagnostic process when patients present with a yet undiagnosed complaint, even though the patient's account of medical history and symptoms often depends entirely on the patient's verbal descriptions and the physician's responsiveness to these. To examine patterns of communication, a reliable tool is often needed.
Aim of the symposium: To explore the importance of good communication between doctors and patients in the diagnostic process in primary care by analysing (1) information from the Danish Patient Compensation Association, (2) audio files from the out-of-hours primary care service and (3) screen-recordings of daytime video-consultations and video-recorded face-to-face consultations. Moreover, to discuss the usefulness of ICC as a reliability measure and the fundamental challenge of quantifying and systematizing the evaluation of communicative behavior.
Titles of Presentations included in the symposium: (1) The diagnostic process and its cognitive biases from a general practice perspective.

(2) Negotiation of seriousness in telephone triage with patients with unidentified stroke.

(3) Identifying communication problems in the out-of-hours medical services by analysing patient compensation claims.

(4) Quantification of communicative behaviour.

(5) Communication patterns in video consultations compared to face-to-face consultations in primary care.

Stethoscopes, troponins and smartwatches: Tools in the right hands?

Cardiovascular
Clinical General Practice

Peder A. Halvorsen[1]
Anne Herefoss Davidsen[1], Tonje Rambøll Johannessen[2], John Brandt Brodersen[1, 3]
[1] General Practice Research Unit, Department of Community Medicine, UiT - the Arctic University of Norway
[2] Department of General Practice, Institute of Health and Society, University of Oslo, Norway
[3] Centre for Cancer and Organ Diseases, Copenhagen University Hospital – Rigshospitalet, Denmark

Introduction to the symposium: The French physician René Laënnec invented the stethoscope in 1816. For many decades it was the only tool in the GP's hand. However, for diagnosing heart disease, contemporary GPs have access to a multitude of diagnostic technologies, such as blood tests, electrocardiograms and point-of-care (POC) ultrasound. More recently, even patients have direct access to advanced digital equipment such as wearable smartwatches, with the promise of advancing early detection of heart disease even further.
Aim of the symposium: In this symposium we will present cutting-edge research on three diagnostic tools: the classical stethoscope, cardiac troponins and smartwatches. In the population-based health survey Tromsø 7, a large sample (n > 2000) was screened for cardiac murmurs and underwent echocardiography. Based on these data, we will discuss whether the classical stethoscope still has merit in general practice. Next, we present clinical trials of high-sensitivity troponin assays by POC in the diagnosis of acute chest pain and discuss whether acute myocardial infarction can be ruled out safely in the emergency primary care setting. Finally, based on recent meta-analyses, we discuss whether using wearable smartwatches to detect atrial fibrillation will do more good than harm.

Titles of Presentations included in the symposium: • Heart murmurs and valvular heart disease in the general population (Anne Davidsen)
• Rapid rule out of acute myocardial infarction using high-sensitivity troponins by POC (Tonje R. Johannessen)
• Atrial fibrillation detected by smartwatches – findigs from recent meta-analyses (John Brodersen)

Telehealth in general practice: implications for access and triage.

E-health and telemedicine
Digitalization and Technology
Linda Huibers[1, 2]
Jon Eriksson[3], Magnus Wanderås[4], Mette Amalie Nebsbjerg Nebsbjerg[1], Rebecca Payne Payne[5]
[1] Research Unit for General Practice, Aarhus, Denmark
[2] Department of Public Health, Aarhus University, Aarhus, Denmark
[3] Center for Primary Health Care Research, Department of Clinical Sciences Malmö, Lund University, Malmö, Sweden
[4] Kristiansand Municipality, Kristiansand, Norway
[5] Bangor University, North Wales Medical School, Wales, United Kingdom

Introduction to the symposium: General practice is under pressure due to increased healthcare demands, including an ageing population, greater multimorbidity, task shifting toward primary care, and shortages of healthcare professionals. Many of these demands relate to minor acute health problems. Citizens often find it difficult to determine whether medical care is needed and which service to access. Triage of health problems, particularly in telephone contacts, can also be challenging for healthcare professionals when assessing the appropriate level of care.

Telehealth is widely regarded as a promising approach to improving access and triage and promoting more efficient use of healthcare resources. However, not all telehealth solutions deliver the expected benefits; some may even create new barriers due to challenges related to health and digital literacy. Enhancing access to high-quality advice for minor illnesses and injuries may support more efficient allocation of healthcare resources. Incorporating video as a triage tool may further support healthcare professionals by enabling more accurate assessments than telephone alone. As telehealth technologies evolve rapidly and hold great promise, systematic evaluation and research remain essential.

A sympsoium by NorDigNet (the Nordic Network for Digital health in primary care).
Aim of the symposium: To provide an overview of ongoing research in telehealth in general practice, focusing on access and triage.
Titles of Presentations included in the symposium: Self-care by a digital health advisor: citizens' and healthcare staff's experiences with symptom checkers in Norway, Magnus Wanderås.
GP variation in triage decisions, Mette Amalie Nebsbjerg.
Equity and sociodemographic differences in the utilization of digitalized primary healthcare, Jon Eriksson.
The quality and safety of video triage, Rebecca Payne.

Menopause in the GP's office – women's experiences, symptoms and diagnoses

Women's health
Clinical General Practice
Thomas Omdal[1]
Marianne Natvik[2]
[1] Department of Global Public Health and Primary Care, University of Bergen, Norway
[2] Department of General Practice, University of Oslo, Norway

Introduction to the symposium: The perception of the menopause has changed in recent years, both among women and healthcare personnel, and a broader range of symptoms are linked to menopause. With the increased societal attention menopause has received recently, the general practitioner is expected to deliver updated high-level scientific knowledge to inform and guide patients about symptoms, self-care and treatment options during menopause.

Structural approaches to menopause are important for empowering women through this period, including public information campaigns, labour force initiatives, and guidelines to support those experiencing symptoms that affect quality of life. In this symposium, however, we focus on the role of the general practitioner and women's experiences in the healthcare system.
Aim of the symposium: To present recent Nordic studies on menopause, with emphasis on clinical implications to update general practitioners.

To allow practitioners and researchers on women's health to meet and exchange ideas for further projects.
Titles of Presentations included in the symposium:
Finding Sense of Coherence in the menopause transition - Marianne Natvik, University of Oslo

Women's experience of consulting their general practitioner regarding menopause – Emilie Mølholm Kjærulff , University of Copenhagen

Menopause and primary care consultations: diagnostic patterns among women in the KLAR Study - Inger Haukenes, University of Bergen

Duration of menopausal symptoms - Thomas Omdal, University of Bergen

Swedish physicians' knowledge of and prescribing practices for menopausal hormone therapy

What Is Child Vulnerability? Implications for General Practice and Cross-sector Collaboration

Care for children and adolescents
Clinical General Practice

Camilla Hoffmann Merrild[1]
Steffi Blach Naamansen[2], Oda Martine Steinsdatter Øverhaug[3], Sarah Kornum Melgaard[4]
[1] Camilla Hoffmann Merrild, Center for General practice at Aalborg University, Denmark (Chair)
[2] Steffi Blach Naamansen, Research Unit of General Practice, Department of Public Health, University of Southern Denmark
[3] Oda Martine Steinsdatter Øverhaug, General Practice Research Centre, Department of Community Medicine, UiT The Arctic University of Norway
[4] Sarah Kornum Melgaard, Center for general practice at Aarhus University, Denmark

Introduction to the symposium: Understanding vulnerability in childhood is essential for ensuring timely support, yet the concept remains complex and variably interpreted in clinical practice. General practitioners frequently encounter signs of vulnerability, expressed through psychosocial circumstances, family dynamics, developmental concerns, or somatic symptoms that mask underlying difficulties. This symposium explores the concept of vulnerability, and how understandings of this concept influence responses to children and families, collaboration across sectors, as well as implications for practice.
Aim of the symposium: The aim of the symposium is to address diverse understandings of child vulnerability in general practice and to support discussion on how health professionals in general practice can contribute to more coherent and better care for vulnerable children.
Titles of Presentations included in the symposium:

- Camilla Hoffmann Merrild: What is child vulnerability? Perspectives from Danish general practice
- Steffi Blach Naamansen: General practitioners' perspectives on managing children with functional abdominal pain
- Oda Martine Steinsdatter Øverhaug: Trust as a tool: Understanding and addressing child vulnerability in general practice
- Sarah Kornum Melgaard: Mapping collaboration: Communication pathways between general practice and child welfare services across Danish municipalities

Continuing Professional Development – for everyone! – Insights from Denmark

Lifelong learning and CPD strategies
Continuous Professional Development (CPD)
Niels Kristian Kjær[1]
Helle Ibsen[1], Lone Grønbæk[1], Roar Maagaard[2]
[1] Research Unit for General Practice, Department University of Southern Denmark
[2] Nordic Federation of General Practice

Introduction to the symposium: Introduction to the Symposium
Continuing Professional Development (CPD) plays an important role in general practice. It can enhance essential competencies, support professional coherence and engagement, reduce the risk of professional burnout, boost motivation, and contribute to improved healthcare. Yet some GPs seem to benefit less than their colleagues; they may not experience the same increase in professional motivation nor a reduction in burnout symptoms. Drawing on scientific data and Danish empirical experience, we will present and discuss potential approaches to make CPD more inclusive and beneficial for all GPs. We will share new data on GPs' motivation and barriers, experiences with learning activities in real-world practice, inclusiveness via diversity in format and content of CPD activities, presenting pro and cons in introducing mandatory Continuing Professional Development, ending with a discussion among the audience about ways to proceed
Aim of the symposium: Aim of the Symposium
Discuss how to engage our absent colleagues to Continuing Professional Development activities and define the state of the art in inclusive CPD programmes
Titles of Presentations included in the symposium: Titles of Presentations Included in the Symposium

- *Everyone on board? Motivation and barriers in Continuing Professional Development (Helle Ibsen)*
- *Continuing Professional Development in Real-World Practice setting: Learning in small groups and workplace-based activities (Lone Grønbæk)*
- *Diversity in format and content strengthens inclusiveness, but what about learning outcomes, quality and relevance from patient and societal perspectives? (**Roar Maagaard**)*
- *Mandatory Continuing Professional Development – scary or supportive? A requirement Danish GPs don't entirely hate. (Niels Kristian Kjær)*
- *A follow up discussion the audience. (**Roar Maagaard** and fellow presenters)*

Existential Health in Primary Care

Mental health
Clinical General Practice
Pieter Barnhoorn[1]
Karolien van den Brekel-Dijkstra[2], Solfrid Siqveland[3]
[1] Public Health and Primary Care (PHEG), Leiden University Medical Center (LUMC), Leiden, the Netherlands
[2] Positive Health international, Utrecht, The Netherlands
[3] Rosendal Helsesenter, Norway

Introduction to the symposium: The driving cultural force nowadays is the desire to make the world controllable. We notice this in our consulting room when patients seek certainty in diagnoses, blood tests and referrals. And doctors are not insensitive to this trend either. Despite the fact that we profess that healthcare is about to "cure sometimes, relieve often, an console always", most healthcare professionals entered healthcare to do something, to solve problems. However, sometimes it is more appropriate to "sit on our hands", stop doing and fixing and really listen to the patient's story instead, because a world that is fully known, in which everything has been planned and mastered, would be a dead world.

"Brave Doctoring" can be seen as a counterbalance to putting a diagnosis on every problem and question we meet, because not everything that is discussed in the consulting room needs a medical-technical solution. Often discussing what is meaningful for the patient, room for Existential Health, is more appropriate.

We share practical examples and experiences from the Netherlands and Scandinavia on how to apply the existential approach to GPs, giving patients more control over their health, using the Positive Health concept.
Aim of the symposium: To inspire GP's to integrate Existential Health into their practice.
Titles of Presentations included in the symposium: 20 minutes: background and 3 plenary presentations:

1. Existential Health
2. Positive Health
3. practical international and Scandinavian experiences.

40 minutes: interactive session based on TBL (Team based learning), to practice, learn and discuss insights on Existential Health

5 minutes: wrap up and sharing take home messages

Getting Low Value Care into medical education – experiences from the Nordic countries

Choosing Wisely
Environmental Health and Sustainability

Oskar Lindfors[1]
David Gyll[2], Johan Bengtsson[3, 4], Minna Johansson[5, 6, 7, 8], Asthildur Arnadottir[9], Karin Mossberg[6], Trygve Sølberg Ellingsen[10], Thomas Omdahl[11], Margrét Ólafía Tómasdóttir[12], Marianne Riekki[13], Joachim Frølund Hansen[14], Hálfdán Pétursson,
[1] Järpen health care centre, region Jämtland Härjedalen
[2] Bälinge health care centre, region Uppsala
[3] Uppsala university hospital, region Uppsala
[4] Department of Medical Sciences, Uppsala University
[5] Herrestad health care centre, Västra Götalandsregionen
[6] University of Gothenburg
[7] Cochrane Sweden
[8] Global center for sustainable healthcare
[9] Research Unit for General Practice, Copenhagen, Slagelse and Køge
[10] Hommelvik Legekontor (GP office), Malvik, Department of Community Medicine, Faculty of Health Sciences, UiT - The Arctic University of Norway, Tromsø, Norway
[11] Department of Global Public Health and Primary Care, University of Bergen, Norway.
[12] Development Centre for Primary Health Care in Iceland /University of Iceland
[13] Northern Ostrobothnia wellbeing services county, Clinical lecturer, University of Oulu, Finland
[14] General practice and Department of Clinical Medicine, Aarhus University, Denmark.

Introduction: The importance of mitigating low value care (LVC) is increasingly recognized, both to prevent harms to individuals and to improve sustainability of healthcare. Since doctors are one of the main drivers of LVC, and because it is an inherent part of clinical reality, improving medical students' and General practionner (GP) trainees' knowledge is important. However, LVC, and related concepts such as overdiagnosis and overtreatment, are rarely formally included in curricula or taught at medical schools or in GP specialist training. When LVC is taught, it is usually as an add-on and not integrated into the teaching across medical fields.

Aim:

- To explore barriers and opportunities to include LVC and related concepts in medical teaching.
- Based on the discussions at the symposium, we will write an advocacy paper intended for Medical Journals in the Nordic countries.

Type of interactivity with participants:

Empowering GPs to support patient with mental health related sick leave and improving continuity in Swedish Primary Care

Mental health
Clinical General Practice
Ausra Saxvik[1, 2]
Cecilia Björkelund[1, 2], Irene Svenningsson[1, 2], Dominique Hange[1, 2]
[1] Primary Health Care/Department of Public Health and Community Medicine, Institute of Medicine, Sahlgrenska Academy, University of Gothenburg, Gothenburg, Sweden
[2] Region Västra Götaland

Introduction: Common Mental Disorders including stress related disorder are the most common causes of sick leave in Sweden and most other Nordic countries. Primary care has a central role in assessing, monitoring and coordinating interventions and care for these patients, where a majority need longer time on sick leave. This affects both the rehabilitation and work ability of patients and GPs' work environment. Most intervention studies to increase return to work have shown little effect.
Aim: To compare advantages and disadvantages in organisations and care of patients on sick leave for mild-moderate mental illness in some Nordic countries. To present results from an RCT in primary care with positive long-term results and with focus on GPs' work environment.
Type of interactivity with participants: Metod
Based on powerpoint presentation of Nordic Primary Care organisations, insurance legislation and statistics on sick leave, we will highlight the sick leave process, role of the doctor, collaboration with employers, and patients' experiences of support and demands. Discussion with and reflections from the audience via the beehive method. **Results**
In many countries, limited access to psychological treatment and rehabilitation interventions is perceived as an obstacle to good and effective RTW and working capacity. Increased efforts as support via team-based care and early dialogue with employers together with clear planning can improve the process for the doctor and the patient, but positive effects concerning time on sick-leave develop only with an extended time frame.

Conclusion
We will discuss long term results from a Primary Care intervention which illustrates areas for organisational improvement.

Acute sinusitis – quo vadis?

Infections
Clinical General Practice
Sigurd Høye[1]
Louise Emilsson[2], **Guro Hagen Fossum**[1, 2]
[1] Antibiotic Centre for primary care, Department of General Practice, University of Oslo
[2] Department of General Practice, University of Oslo

Introduction to the symposium: Acute sinusitis (AS) is a frequent reason for primary care visits and has historically been a major cause of unnecessary antibiotic prescribing, contributing significantly to antimicrobial resistance (AMR). This symposium presents findings from the Norwegian BASIC (Better treatment for Acute Sinusitis In primary health Care) project, which addresses AMR and promotes sustainability by tackling diagnostic uncertainty, evaluating treatment alternatives, and studying patient and prescriber expectations. The central theme is the shifting landscape of AS management: while Norway has succeeded in substantially reducing antibiotic use, clinical decision-making remains complex, driven by patient-reported symptoms rather than clear guidelines.
Aim of the symposium: The overarching purpose of this symposium is to contribute to an improved understanding and management of acute sinusitis (AS) in Nordic general practice. The symposium will provide clinically useful information by presenting the newest evidence regarding appropriate AS management, thereby enhancing patient care. For the academic audience, the symposium offers academically valuable insights by detailing the innovative research methodology utilized in the BASIC project.
Titles of Presentations included in the symposium:

1. **Sinusitis – a vanishing entity?**
    - Sigurd Høye, associate professor and head of The Antibiotic Centre for Primary care, Department of General Practice, University of Oslo
2. **Less antibiotics – more complications?**
    - Louise Emilsson, associate professor, Department of General Practice, University of Oslo
2. **'Antibiotics Works': Patient and GP experiences and expectations**
    - Jorunn Thaulow, ENT specialist, PhD candidate, The Antibiotic Centre for Primary care, Department of General Practice, University of Oslo
2. **If not antibiotics – what then?**
    - TBA

Smoking and Nicotine Use in Primary Care – Trends, Risks and Special Populations

Multimorbidity and complex care needs
Clinical General Practice
Mikael Ekblad[1]
Ansa Rantanen[1], Jouko Nurkkala[2]
[1] Department of General Practice, University of Turku, Finland
[2] The well-being services county of Southwest Finland

Introduction to the symposium: Smoking and nicotine use remain significant health challenges in primary care. The growing diversity of nicotine products introduces new challenges for clinicians, as these behaviors negatively affect patient prognosis, particularly among individuals with depressive symptoms. In addition, smoking during pregnancy poses serious health risks for both mother and child. Effective interventions are needed to address these issues across different patient groups and clinical contexts.
Aim of the symposium: Topics include current trends in nicotine use, mental health interactions, perioperative risk reduction strategies, and smoking cessation during pregnancy. This symposium will present evidence-based insights and practical models to improve outcomes through prevention and integrated care.
Titles of Presentations included in the symposium: First, **Mikael Ekblad** will discuss the emerging trends in alternative nicotine products and their health implications.
Second, **Ansa Rantanen** will present the interaction between depressive symptoms and smoking, focusing on their combined association on mortality in a primary care cohort.
Third, **Jouko Nurkkala** will introduce the TUPLEI model in the well-being services county of Southwest Finland, which improves anesthetic, surgical, and long-term outcomes for smokers by promoting preoperative cessation of smoking and nicotine use.
Finally, **Mikael Ekblad** will address smoking during pregnancy and its impact on maternal and child health, emphasizing the need for targeted cessation strategies.

The session will conclude with a moderated discussion on clinical implications, prevention strategies, and research gaps. By integrating evidence on mental health, perioperative care, and pregnancy, this symposium aims to provide clinicians with practical tools to reduce harm and improve patient outcomes in primary care.

From Annual Check-ups to Continuous Care: Scaling Proactive and Individualised Follow-up in Primary Care

Innovation in primary care systems
Health services

Peter Sjöstedt[1]
Seika Lee[1], Tim Svanberg[2], Jonathan Greer[3], Shintuja Yejanandam[4], Daniel Carlzon[5]
[1] Capio Proximity Care, Sweden
[2] Capio Vårdcentral Helsingborg Centrum, Capio Proximity Care, Sweden
[3] Capio Vårdcentral Lundby, Capio Proximity Care, Sweden
[4] Capio Vårdcentral Årsta, Capio Proximity Care, Sweden
[5] Capio Vårdcentral Sävedalen, Capio Proximity Care, Sweden

Introduction to the symposium: Swedish primary care has traditionally relied on standardized annual physical check-ups for patients with chronic conditions. This approach often results in fragmented follow-up, reactive medication management, avoidable physical visits, and suboptimal use of clinical resources. To strengthen person-centred care, continuity, and patient safety, Capio Proximity Care — a healthcare provider with more than 100 primary healthcare centres — has developed a unified framework for proactive and individualised follow-up, inspired by Choosing Wisely and the principle of providing care at the most effective level of competence.

A core element of this transformation is the systematic use of digital tools and digital-first workflows to replace unnecessary in-person contacts, enable timely monitoring, and support planned rather than reactive care. The framework has been adopted across seven regional divisions, each integrating the core principles into locally tailored, digitally supported models. This symposium presents the national rationale and design, followed by four local implementation cases, illustrating how shared principles and digital infrastructure can drive large-scale change while allowing regional and local variation.

Aim of the symposium: To demonstrate how proactive and individualised follow-up can be digitally enabled and operationalised in diverse primary care settings, combining national principles with local models and highlighting practical lessons, organisational enablers, and transferable methods for scaling proactive, digitally supported care within Nordic general practice.

Titles of Presentations included in the symposium: "**From Annual Check-ups to Continuous Care**"
"**Digital Tools and Teamwork: Enabling Safe and Effective Patient Follow-up**"
"**Data-Driven Learning and Monthly Monitoring in Primary Care**"
"**Implementing Proactive Follow-up in Urban Primary Care**"
"**A Universal Medication-Based Model for Proactive Follow-up**"

Too much or too little? Balancing overdiagnosis and missed cancers in primary care

Cancer
Clinical General Practice
Elinor Nemlander[1, 2]
Katharina Schmidt-Mende[1, 3]
[1] Division of Family Medicine and Primary Care, Department of Neurobiology, Care Sciences and Society (NVS), Karolinska Institutet
[2] Liljeholmens University Primary Care Centre, Region Stockholm
[3] Torsvik Primary Care Centre, Region Stockholm

Introduction to the symposium: Early cancer detection is a core task of general practice, but increasingly challenged by ageing populations, multimorbidity and limited resources. Most cancer diagnoses originate from symptom-driven primary care consultations, where symptoms are common but cancer is rare. This creates tension between delayed diagnoses and harms from over-investigation, overdiagnosis and overtreatment. The national cancer strategies across the Nordic countries increasingly assign responsibility for early detection to general practice, often without proportional reinforcement of capacity or decision support.

In parallel, frailty and multimorbidity raise critical questions about benefit versus harm. For some patients, aggressive diagnostic pathways may lead to anxiety, complications and low-value care, highlighting the importance of quaternary prevention in cancer diagnostics.
Aim of the symposium: To explore how general practice can balance underdiagnosis and overdiagnosis in early cancer detection, integrating frailty assessment and quaternary prevention to support safe, person-centred and sustainable care.
Titles of Presentations included in the symposium: Two general practitioners will deliver an integrated, dialog-based presentation that weaves together clinical cases with ethical and system-level perspectives. Short, focused segments will alternate between the speakers, using real-world primary care scenarios to illustrate key dilemmas, with audience input integrated throughout the session.

Key themes include:

- Diagnostic uncertainty and risk thresholds when investigating possible cancer in primary care
- Symptom prevalence, referral criteria and the limits of secondary-care evidence
- Frailty assessment and multimorbidity as decision-support tools in cancer diagnostics
- Quaternary prevention: avoiding harm while maintaining safety and trust
- System responsibilities: what support does primary care need?

Participants will gain practical tools to navigate diagnostic dilemmas while avoiding both missed cancers and unnecessary harm.

Building research capacity in primary care: experiences from Region Stockholm's University healthcare centres

Other (only selected in exceptional cases)

Sandra Af Winklerfelt Hammarberg[1, 2]
Maria Hjalmarsson[1], Erik Hedman Lagerlöf[1, 2], Olesja Fornara[1, 2], Jeanette Westman[1]
[1] Academic Primary Care Centre, Region Stockholm, Sweden
[2] Division of Family Medicine and Primary Care, Department of Neurobiology, Care Sciences and Society, Karolinska Institutet, Stockholm, Sweden

Introduction to the symposium: Region Stockholm has established a unique and integrated infrastructure to support high-quality clinical research within primary care. Three university-affiliated primary care centres, Liljeholmen, Gustavsberg and Jakobsberg, together with the Academic Primary Care Centre (APC) form the University Healthcare (USV) structure in primary care. This model combines clinical work, academic competence and coordinated research support. In addition, Region Stockholm has implemented digital tools and system-wide processes that facilitate feasibility assessments, patient identification, data extraction, and quality assurance across the entire primary care network. The Stockholm model illustrates how a large urban region can systematically build research capacity, support clinicians, and strengthen evidence-based primary care.
Aim of the symposium: The aim of this symposium is to present how the USV structure creates a coherent and scalable platform for primary care research in Region Stockholm, and to offer practical insights that may inspire similar developments across the Nordic countries.
Titles of Presentations included in the symposium:

- Opening remarks: Building research capacity in primary care: A regional perspective
- Developing a research-active primary care centre: Experiences from Liljeholmen UVC
- Integrating clinical work and research culture in everyday practice: Lessons from Gustavsberg UVC
- Building capacity and engaging clinicians in research: The Jakobsberg UVC model
- A regional platform for primary care research: APC's "Single point of entry", regional study database for clinical studies, study support, and digital infrastructure

Detection of age-related vision impairment in general practice: The DETECT-intervention

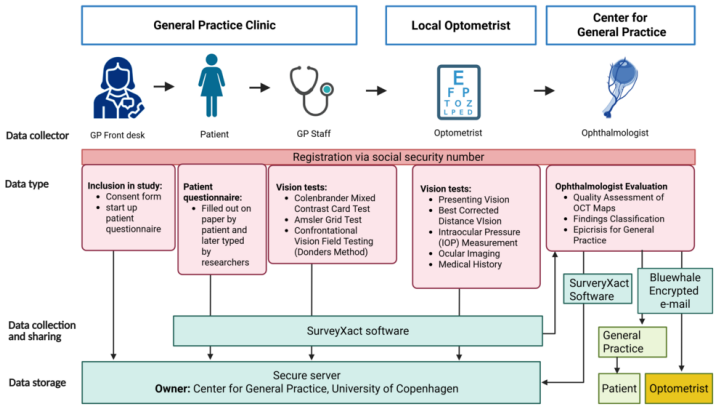
Interprofessional collaboration and team-based care
Health services

Mette Louise Petersen[1]
Mads Aage Toft Kristensen[1], Emma Katrine Frøhlke Steinbo[1], Agnes Galbo Brost[1], Catharina Thiel Sandholdt[1], Frans Boch Waldorff[1]
[1] Research Unit of General Practice and Section of General Practice, Department of Public Health, University of Copenhagen, Copenhagen, Denmark

Introduction to the symposium: Age-related vision impairment (ARVI) is linked to decreased self-care and increased adverse health outcomes. Despite these health implications and available treatment options, ARVI remains an area with little knowledge and research in family medicine. The DETECT-intervention targets patients aged 70 and above with at least one chronic condition who have not visited an ophthalmologist in the past two years. General practice staff complete three diagnostic tests and patients complete a patient questionnaire. Patients are referred to their local optometrist for an extended eye exam. An ophthalmologist reviews the data collected by the optometrist, allowing for a comparison between findings from general practice and the ophthalmologic gold standard. Findings from the DETECT-intervention aim to enhance care for older patients at risk of ARVI and inform efficient resource allocation in general practice
Aim of the symposium: The aim of the symposium is to discuss general practice staff perspectives on ARVI and reflect on the barriers and enablers in engaging with Danish general practices in intervention research with departure in our findings from the DETECT study.
Titles of Presentations included in the symposium:

- Findings from the DETECT-intervention (presenting author: Frans Boch Waldorff)
- General practice staff perspectives on ARVI (presenting author: Mads Aage Toft Kristensen)
- Barriers and Enablers in Collaboration: Reflections on engaging with Danish general practices in intervention research (presenting author: Mette Louise Petersen)

We will actively discuss our findings with the audience after each presentation.



Weight Neutral Health

Obesity and type 2-diabetes
Clinical General Practice
Rasmus Køster-Rasmussen[1]
Lene Meyer[1], Gudrun Sigurdardottir[1], Mette Louise Petersen[1]
[1] University of Copenhagen, Public Health, Centre for general Practice

Introduction to the symposium: Weight-neutral health (WNH) is a health model that is well suited for general practice. Body diversity is appreciated and there is no aim of weight loss. WNH comes with an evidence-based critique of the weight loss and diet culture and suggests a bio-psycho-social approach with body acceptance, intuitive eating, rest, movement and self-compassion to improve the general health. WNH is inspired by the American Association for Size and Diversity and Health. In Denmark ten municipalities offer WNH programs and DSAM mentions WNH in its recent clinical guideline 'Use of weight loss medication'. WNH strategies may reduce weight stigma and be a way to reduce unnecessary medicalization of high body weight.

Each presentation is based on a recent publication by the researchers conducting the WIN study (a weight neutral health Intervention) at the University of Copenhagen.

- Beyond body mass index: rethinking doctors' advice for weight loss. BMJ. 2025.
- Weight Stigmatization – Occurrence, Implications, and Prevention Potentials. Vidensråd for Forebyggelse, 2024.
- "Don't ask me to be joyful!" – a qualitative study of the weight-neutral principle 'joyful movement'. SSM - Qualitative Research in Health. 2025.

Aim of the symposium: The aim of the symposium is for the participants to learn about

- The concept of weight neutral health
- The rationale and the evidence suggesting a shift away from weight loss aims
- How weight stigma is a public health concern

Titles of Presentations included in the symposium:

- **Weight neutral health,** by Gudrun Sigurdardottir
- **Beyond body mass index: rethinking doctors' advice for weight loss,** by Rasmus Køster-Rasmussen
- **Weight stigma,** by Lene Meyer

- **Striving for Joyful movement,** by Mette Louise Petersen

Workshop

Should I stay or should I go? Uncertainty about their future in General Practice is common among GP-trainees.

Vocational training and supervision
Continuous Professional Development (CPD)
Anders Lundqvist[1]
Monika Engblom[1], Cecilia Ryding[1], Elisabeth Månsson Rydén[1]
[1] The council for assessing competence in SFAM

Introduction: Among the threats to sustainability in Primary Health Care you find a shortage of GPs, a lack of continuity in care, medicalization, and increasing patient demands. All this puts a strain on GP trainees. Coping strategies are needed.

SFAM (The Swedish Association of General Practice) offers a mid-programme assessment (Mitt-i-ST). This is an external formative assessment which focuses on the process of becoming a GP. As part of the process many trainees express concerns about becoming a GP. One of the most common questions asked is about sustainability in Primary Health Care.

How can I improve my consultations skills in order to become more efficient? What do I have to do in order to achieve a sustainable worklife in the long run? How do I avoid burn-out? How do I manage unreasonable expectations from patients?

Are these concerns demonstrating a lack of resilience among GP trainees or do they represent a reasonable response to demanding working conditions, for example shortage of GPs ?
Aim: To discuss how to best address these concerns in our conversations with the GP-trainees. Learn about different coping strategies towards a healthier worklife in this collegial dialogue.
Type of interactivity with participants: After a short presentation the participants will be divided into small groups to discuss the subject. The collection of ideas in each group is then presented for all participants. A short take-home message concludes the workshop.

Mitt-i-ST. A mid-programme assessment of GP training in Sweden.

Vocational training and supervision
Continuous Professional Development (CPD)
Margareta Troein[1, 2]
Gunilla Stenninger[2]
[1] Lund University, Lund, Sweden
[2] SFAM – The Swedish Association of General Practice

Introduction: Since 2000 SFAM (The Swedish Association of General Practice) has organised assessments of individual physicians´progress in their training in general practice. The assessment is not compulsory according to the rules from the National Board of Health and Welfare but half of the Swedish counties require it as part of the training. The assessment is made by a trained external assessor.

The assessment is formative with the aim of helping the trainee to discover how their training is progressing in different aspects of the physicians' work. The assessment also enables the external assessor to give advice on the remaining training period.

The assessment is based on three parts:
1. A portfolio of the trainee's planning, including the supervisor's appraisal.
2. Video recordings of authentic patient consultations.
3. A practice day, when the assessor follows the trainee's work and gives oral feed-back.

The assessor summarises impressions in a report addressed to the trainee, with suggestions for the remaining training period.
Aim: In this session we will elaborate on the methods used during the assesment and how we maintain quality assurance.
Type of interactivity with participants: We present our methods in greater detail and participants can discuss the methods with practical examples.

Sustainability in General Practice – Leadership, Wellbeing & Environment - The combination strengthens all perspectives

Leadership and organizational development
Health services
Sofia Kärnsund[1]
Aho Bazargan[1], Søren Bang[1], Malene Lindholmer Nepper[1], Karolina Lewandowska[2], Ásthildur Árnadóttir[2], Thomas Christensen[1]
[1] Forum for Yngre Almen Medicinere, Denmark
[2] Grøn Praksis, Dansk Selskab for Almen Medicin, Denmark

Introduction: Introduction:
General practice faces multiple sustainability challenges: increasing workload, doctor shortages, organisational changes and the climate crisis. To ensure a sustainable future, we must broaden our understanding of sustainability to include not only environmental concerns but also professional wellbeing and effective leadership. These three dimensions – leadership, wellbeing, and environment – can form mutually reinforcing pillars for a resilient and adaptive future-ready primary care.
Aim: Aim:
The workshop aims to explore how leadership, wellbeing, and environmental sustainability can be integrated into everyday general practice. Participants will reflect on why these aspects are needed now, how they affect practitioners, workplaces, patients, as well as co-benefits.and how they can strengthen one another. By the end of the session, participants will have identified strategies and shared experiences on how to combine these perspectives in their own clinical settings.
Type of interactivity with participants: Type of Interactivity with Participants:
The workshop is based on a real-life patient case from general practice, where we will follow the patient through different clinical settings and how these relate to sustainability. Participants are divided into groups where each member adopts a different "lens" – leadership, wellbeing, or environment – to analyse the case from multiple perspectives. Facilitated jointly by members of FYAM (Young General Practitioners Denmark) and *Grøn Praksis* (Green Practice), discussions are guided by key questions and insights from FYAM's *Wellbeing in Practice* survey and the *Green Practice* initiative. The session concludes with a plenary discussion, fostering shared reflection and actionable inspiration for a sustainable future in general practice

Prioritising continuity of care when organising general practice

Continuity of care
Clinical General Practice

Signe Nørgaard[1]
Elisa Jokelin[2], Linus Johnson[3], Anette Fosse[4], Anders Prior[5], Anne Møller[1]
[1] Department of Public Health, University of Copenhagen, Research Unit for General Practice Slagelse, Køge og København, Denmark.
[2] Department of Public Health, PL 20 00014 University of Helsinki, Finland.
[3] Vårdcentralen Strängnäs, Sweden Centre for Research Ethics & Bioethics (CRB), Uppsala University, Sweden Centrum för klinisk forskning Region Sörmland, Uppsala University, Sweden.
[4] The Norwegian Centre for Rural Medicine (NCRM), UiT The Arctic University of Norway, Tromsø, Norway.
[5] Department of Public Health, Aarhus University, Research Unit for General Practice Aarhus, Denmark.

Introduction: The first core value formulated by the Nordic Federation of General Practice states: "*We promote continuity in the doctor-patient relationships as a central organising principle*". The benefits of continuity are well established. However, due to increased workload, shortage of general practitioners, - and change of structures in healthcare systems, organisational strategies in general practice have changed in the Nordic countries.
Some organisational changes, such as larger clinics and task-delegation may compromise continuity in general practice. Team-based care, Multi-Disciplinary-Team approach, and optimizing patient lists in general practice, are strategies to improve continuity through organisational management.
Aim: The objective of this workshop is to engage participants from all Nordic countries to reflect on how organisational strategies and structures can act as barriers or promoters of continuity. We will elaborate on existing experiences both in the author group and among participants. Different organisational approaches from Nordic countries are presented, illustrating how organising and prioritising workflow in general practice may or may not contribute to continuity. Patient perspectives as well as needs and requests from different patient populations will be touched upon, and the concept of continuity discussed.
Type of interactivity with participants: In this workshop, we will facilitate group discussions and exercises. Participants are invited to contribute with their own suggestions and experiences from general practice. During the session, we will gradually construct a mind map based on participants' plenary input, illustrating identified organisational barriers and promoters of continuity. After completion, it will serve as a take-home-tool and contribute to an ongoing Danish project.

Gold Nuggets from the local specialists - group based learning

Lifelong learning and CPD strategies
Continuous Professional Development (CPD)
Andreas Heltberg[1, 2]
Rune Ahrensberg[2], Kenda Christensen[2]
[1] Copenhagen University Center of General practice
[2] Region Zealand KAP-S

Introduction: The workshop will begin with a short introduction to group based learning. The rationale and structure of the "Gold Nuggets" system. In the workshop, we will present how the program was developed and evaluated - to ensure strong ownership and practical, functinal learning models. Testing the modules whitin educational groups—applying a form of *embedded development.* The development process involved iterative refinement based on feedback from practicing GPs, active inclusion of local specialists and national clinical guidelines.

Aim:

- Gain insight into a practical new tool for continuing education in GP
- Experience the case-based group learning approach firsthand
- Leave with three ready-to-use prototype modules
- Contribute to shaping further development of the framework and new initiatives
- Build collaborations with colleagues

Type of interactivity with participants: Participants will work in small groups using one of the three selected case-based modules from the program—one each from ENT, ophthalmology, and dermatology. The workpackages is cases illustrating typical patient presentations in GP, stimulate group reflection. Goal of the program is on management choices, encourage exchange of practical tips, idears for implementation and clinical experiences. The programs suggests inclusion of local specialist, who contribute the groupbased discussion and learning with concise clarifications, updated guidelines, diagnostic pearls and pragmatic management advice. The program should enhance local cooperation between GP specialists.

After the hands-on session, the workshop will shift into a collaborative design phase. Participants will be invited to:

- Propose additional topics and specialties suitable for this educational format
- Discuss implementation in own national CPD structures
- Share similar initiatives
- Explore evaluation strategies for group-based learning interventions

Recruit and retain - Making it Work framework - a practical and systemic tool to develop a sustainable medical service

Policy, governance, and healthcare reform
Health services
Anders Svensson[1]
Peter Berggren[2], Niclas Forsling[2], Francisco Lamus Lemus[3]
[1] Norwegian Centre for Rural Medicine
[2] Swedish Centre for Rural Health
[3] Department of family medicine and public health - University of La Sabana, Colombia

Introduction: Recruiting and retaining a skilled health workforce is a common challenge for remote rural communities, negatively affecting access to services, and in turn people's health.

The *Making it Work: Framework for Rural Remote Workforce Stability* meet these challenges. Developed over seven years by an international collaboration, the Framework describes a spectrum of strategic elements that are essential to advancing consistent access to high-quality essential services in rural and remote environments. The Framework consists of nine key strategic elements, grouped into three main tasks (plan, recruit, retain) with five conditions for success.

The Framework has been implemented in different contexts in Sweden, Colombia and Norway. In Sweden it has been used developing policies and educational pathways for rural health personnel. In rural Norway five municipalities and the local hospital cooperate to improve recruitment and stability of physicians. In Colombia it is used in collaboration with rural communities to build health care in a region with limited access to necessary services.
Aim: To increase knowledge of recruitment and retention strategies and discuss how the Framework can be used and be useful in different contexts
Type of interactivity with participants: The workshop will start with three short (8 min.) speeches presenting the Framework and how it has been used. After a short plenum discussion, the participants will be divided into groups discussing the implications for their context. (249 words).

Prioritizing for a sustainable work life in general practice: Which patients with multimorbidity need the most?

Multimorbidity and complex care needs
Clinical General Practice
Anna Lyhnebeck[1]
Anne Holm[1]
[1] Center of General Practice, Copenhagen

Introduction: General practitioners increasingly act as care coordinators for patients with complex multimorbidity, who often experience fragmented care, high treatment burden, and elevated risk of adverse outcomes. Care coordination is meaningful but time-consuming, underscoring the need to prioritize those with the greatest need for continuous, coordinated care.

In Denmark, a randomized controlled trial (2023–2025) introduced an annual one-hour consultation for patients with complex multimorbidity to strengthen coordination through continuity-of-care and a more comprehensive assessment of needs. However, this occurred in a system already strained by limited appointment capacity and high GP workload. Devoting such substantial time to one patient is only justified when those most likely to benefit are accurately identified.

Yet identifying these patients remains difficult. Individuals with similar diagnoses can have very different care needs, and current selection often relies on clinical intuition rather than transparent, systematic criteria. Understanding how GPs make these decisions is essential for developing more consistent ways to identify patients with the highest need for improved care.
Aim: To explore and discuss how general practitioners in the different Nordic countries identify and stratify the needs of patients with complex multimorbidity who could benefit the most from extended consultation.
Type of interactivity with participants: The workshop will include a presentation of findings from the process evaluation of the randomized trial and discussions among participants based on these findings. In the workshop, participants will discuss, reflect on, and share experiences from general practice in order to reach a better understanding of complexity in multimorbidity and prioritization for more sustainable solutions.

Engaging patients in quality improvement to obtain more sustainable care in general practice.

Sustainable healthcare practices
Environmental Health and Sustainability
Karina Berthu Ellegaard Skov[1]
Gitte Stentebjerg Petersen[2], Inger Uldall Juhl[1], Dorthe Christiane Zinck Iversen[1], Finn Sørensen[1]
[1] SydKIP, Region of Southern Denmark
[2] Steno Diabetes Center Odense, Region of Southern Denmark

Introduction: This workshop will build on insights from a collaboration between general practice and patients in the Region of Southern Denmark. The collaboration explored how organisational user involvement can lead to mutual learning; strengthen patient-doctor relationship and sustainable quality improvement in general practice.
Aim: The aim is to provide participants with concrete knowledge about organisational user involvement in general practice and introduce simple and feasible ways to initiate local activities in which clinics can engage patients in quality improvement. The participants will be introduced to concrete methods developed and tested in the project—such as digital formats, small-scale surveys and tools for shared understanding between patients and professionals. The workshop places user involvement within the everyday realities of general practice, where individual and organisational perspectives often blend, and where time, resources, and existing workflows determine what is sustainable for the clinic.
Type of interactivity with participants: The workshop will be highly interactive mirroring the project's methodology. Participants will be encouraged to share their own experiences with different methods to include patients in development in general practice. Through discussions and reflective exercises, participants will explore, how organisational user involvement can be adapted in their own context by starting small, and identifying next feasible steps in their own practices.

Network for sustainable general practice: A Danish model of network-based primary care clinics

Leadership and organizational development
Health services
Christina Svanholm[1, 2]
Henrik Rasmussen[1, 3], Salli Rose Tophøj[1, 2, 4]
[1] Netvaerkspraksis Denmark
[2] University of Copenhagen
[3] University of Aarhus
[4] Grøn Praksis

Introduction: General Practice in Denmark is facing growing administrative burdens, recruitment challenges, and increasing demands for continuity of care in an ageing population with complex needs. To address these issues, we have developed 'Netværkspraksis' – a "network practice" model in which multiple general practice clinics collaborate through shared infrastructure, administrative support, and strong professional and social connections. The network is open to any clinic organised under the Danish Association of General Practitioners (PLO).
Aim: To describe the design, implementation and early outcomes of a network-based organizational model for Danish general practice during the first 12 months. Furthermore, we aim to describe how this model may enhance clinician well-being, practice sustainability, high-quality patient care, early recruitment and considerable cost savings. Finally, we aim to show how initiatives such as climate-friendly recommendations can be implemented in several clinics instead of only one.
Type of interactivity with participants: Participants will be introduced to practical examples of shared administrative services (e.g., appointment management, quality assurance, GDPR tasks, annual staff development interviews, financial administration) and collective procurement agreements. Short case scenarios from participating clinics will be used to prompt small-group discussions on local challenges and opportunities for collaboration. Attendees will be invited to reflect on how elements of the model could be adapted to their own settings, including approaches to improving recruitment, reducing administrative burden, and strengthening peer support. The session will conclude with an open Q&A to exchange experiences and barriers to implementation across different health systems.

Care beyond biomarkers: rethinking about how we talk about blood tests with patients

Overdiagnosis and overtreatment
Environmental Health and Sustainability
Lotte Elton[1]
Linn Getz[2], Stefán Hjørleifsson[3]
[1] Centre for Primary Care, Wolfson Institute of Population Health, Queen Mary University of London, United Kingdom
[2] Department of Public Health and Nursing, Faculty of Medicine and Health Sciences, Norwegian University of Science and Technology, Norway
[3] Department of Global Public Health and Primary Care, University of Bergen, Norway

Introduction: Blood tests are more than diagnostic tools. For both patients and clinicians, they represent a sign that concerns are being addressed and taken seriously. Ordering a blood test can therefore act as a symbolic gesture of care and reassurance, even when a test adds little clinical value.

However, relying too heavily on tests can lead to overdiagnosis, overtreatment, and extra workload for clinicians. There is a growing need to find other ways to show care and build trust with patients. As public demand for testing increases, it is important to improve how we communicate both the value and limits of blood tests, including the uncertainties and potential harms associated with testing.

This workshop explores how the language and symbolism of blood testing shape clinical decisions and GP-patient relationships. Through interactive exercises, participants will reflect on how they talk about tests with patients and consider how to build trust without relying on testing.
Aim: In this workshop we aim to:

- Explore how metaphors and everyday language shape how patients and clinicians view blood testing.
- Identify key challenges in discussing blood tests, especially when their clinical value is uncertain.
- Develop practical ways to build trust and offer reassurance without relying on unnecessary testing.

Type of interactivity with participants:

- Mind-mapping exercise to explore the language and symbolism of blood testing.
- Small group discussion using clinical scenarios to identify communication challenges and generate solutions.
- Plenary discussion to share and refine strategies for improving testing discussions.

Who's afraid of the big bad reviewer?

Other
Continuous Professional Development (CPD)
Anna Nager[1]
Linda Huibers[2], Hálfdán Pétursson[3, 4], Torunn Bjerve Eide[5], Peter Haastrup[6], Veronica Milos Nymberg[7], Ansa Rantanen[8], Jörgen Månsson[3]
[1] Karolinska Institutet, Sweden
[2] Aarhus University, Denmark
[3] University of Gothenburg, Sweden
[4] University of Iceland, Iceland
[5] University of Oslo, Norway
[6] University of Southern Denmark, Denmark
[7] Lund University, Sweden
[8] University of Turku, Finland

Introduction: Peer review is central to scientific quality and progress in general practice research. This interactive workshop is designed for both aspiring and experienced reviewers, PhD students, and all authors who want to better understand the review process.
Aim: The aim is to support and guide participants in the reviewer's role, but also to help authors gain insight into the reviewer's perspective. After the workshop, participants should feel more confident as reviewers and, as authors, have a better understanding of the reviewer's role.
Type of interactivity with participants: Editors from the Scandinavian Journal of Primary Health Care (SJPHC) will share their experiences and practical advice. The format includes short presentations, group discussions, and opportunities to share experiences from the review process.

Topics that will be discussed: Why and when to become a reviewer? How to assess a scientific manuscript? How to communicate with editors? Examples of both good and poor reviews will be presented, as well as appropiate ways to respond to feedback. Common pitfalls, ethical issues, and the use of AI in peer review will also be addressed.

Diagnostic Reasoning and Uncertainty in Primary Care: In-sights and Tools from Scandinavia and Australia

Other
Clinical General Practice
Simon Graff[1]
Simon Morgan[2]
[1] Research Unit for General Practice, Aarhus University, Denmark
[2] General Practice Supervision Australia (GPSA), Melbourne, Australia

Introduction: General practice is defined by uncertainty, time pressure and undifferentiated presentations. In both Scandinavian and Australian primary care, diagnostic errors arise more often from cognitive processes than from a lack of medical knowledge. Evidence from cognitive psychology and GP education highlights the need for explicit teaching of diagnostic reasoning. Dual process theory, recognition of cognitive bias, and structured reflection tools can support safer decision-making, yet these approaches are underused in everyday clinical work, teaching and learning, and supervision.
Aim: To strengthen participants' ability to:

- understand the diagnostic process and dual process theory
- identify common cognitive biases in GP settings
- apply the 5Ps model as a practical framework for case-based reasoning and supervision.

Type of interactivity with participants: The 90-minute, highly interactive workshop will integrate theoretical input with case-based group exercises. A focused introduction will outline the core elements of dual-process reasoning and the role of uncertainty in clinical decision-making. Participants will then work with short vignettes to identify anchoring, availability, premature closure and confirmation biases. The main segment is a hands-on workshop, where small groups analyse real-world cases from Denmark and Australia using the 5P model: Presentation, Probe, Pose hypotheticals, Problem definition, Plan learning. Cross-country reflection highlights similarities and differences in reasoning challenges, supervision practices and handling of uncertainty.

Participants will gain:

- a clearer conceptual understanding of diagnostic reasoning in primary care
- practical skills to recognise and mitigate cognitive bias
- confidence in using the 5Ps model for teaching, supervision and daily clinical reasoning
- and comparative insights from Scandinavian and Australian GP practice

Inspiring Global Change- implementing our core values and principles into practice

Undergraduate and postgraduate medical education
Continuous Professional Development (CPD)
Anna Stavdal[1, 2]
Roar Maagaard[3], Johann Agust Sigurdsson[4, 5]
[1] Department of General Practice, University of Oslo, Norway
[2] WONCA, past president
[3] Nordic Federation of General Practice, Denmark
[4] General Practice Research Unit, Department of Public Health and Nursing, Norwegian University of Sience and Technology (NTNU), Trondheim, Norway
[5] Developmental Centre for Primary Healthcare in Iceland

Introduction: Family medicine rests on a set of values and principles that distinguish it from other medical specialties. Education, training, and research at all stages of professional development must align with this foundation.

Over recent decades, Nordic colleges have been at the frontline of research and advocacy for our core values globally. The authors represent the WONCA Core Values Project, launched in 2023 and now entering its second phase, which focuses on integrating values and principles into practice. Defining and developing family medicine is not a one-time effort but an ongoing process. Professional development for family doctors involves a dynamic cycle of research, experiential learning, reflection, and implementation.

Our values serve as guiding principles, yet practices and standards vary across contexts shaped by local needs, public expectations, and available resources. Diversity also reflects culture, religion, and each country's stage in its primary care journey. Recognizing differences becomes easier when we acknowledge our common ground. This shared understanding prepares us to respond to societal changes that inevitably influence health systems, especially primary care.

Aim:

- Explore variations in training schemes across Nordic countries at all levels of professional development.
- Facilitate exchange of experiences and ideas on embedding core values into practice.
- Engage participants to address specific, complex questions.

Type of interactivity with participants:

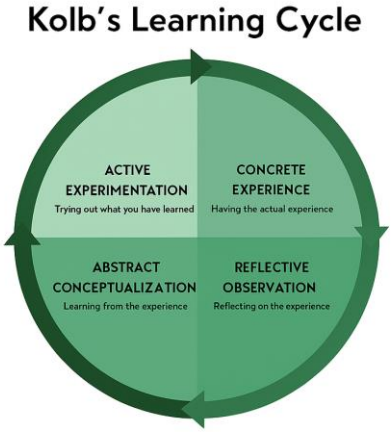
- Introduction: Overview of the WONCA Core Values Project (20 min)
- Group Discussions: Sharing experiences and strategies
- Plenary Wrap-up: Key insights and next steps

Shaping the future of general practice through external formative assessment

Undergraduate and postgraduate medical education
Continuous Professional Development (CPD)
Miriam K. Gustafsson[1, 2]
Inger Johanne Christiansen[3], Thelma Andersen[4], Lilja Rut Arnardottir[5], Elisavet Pataridou[6], Meta Wiborgh[7], Ulf Måwe[8]
[1] NTNU – Norwegian University of Science and Technology
[2] ALIS/SamLIS Midt, Trondheim Municipality, Norway
[3] ALIS/SamLIS Sør, Kristiansand Municipality, Norway
[4] Heilsugæsla Höfuðborgarsvæðisins, Reykjavík, Island
[5] Heilbrigðisstofnun Austurlands, Island
[6] Ronneby Vårdcentral, Region Blekinge, Sweden
[7] Retired general practitioner, Sweden
[8] Husläkarnas vårdcentral, Umeå, Sweden

Introduction: General practice requires broad medical competence combined with empathy, respect, and attentive listening. A patient-centred approach lies at the heart of the discipline. At the same time, general practitioners face conflicting expectations, time pressure, a wide range of medical problems, and rapid medical advances. Doctors in specialist training often experience uncertainty and a sense of inadequacy when navigating these complex demands.

William Bruce Cameron once wrote, “Not everything that can be counted counts, and not everything that counts can be counted.” This insight is vital when considering what truly matters in medical education and professional development. Sweden has long experience with external formative assessment in specialist training, and both Norway and Iceland have recently been inspired to adopt similar approaches.
Aim: This workshop explores how external formative assessment can foster learning and professional growth through dialogue and reflection rather than judgement and grading. We demonstrate how this aligns with Kolb’s learning cycle. Together with participants, we will discuss how formative approaches nurture confident, compassionate doctors who feel empowered to trust in their own clinical judgement and ensure patients who feel heard, respected, and cared for.
Type of interactivity with participants: Participants will engage in small group discussions and collective reflections to identify key values of general practice and threats to these. Through plenary exchanges and collaborative word clouds, participants will visualize shared insights. The format promotes active participation, shared learning and reflection on how formative assessment can help preserve what truly matters in general practice and foster professional sustainability.


Kolb's Learning Cycle
ACTIVE EXPERIMENTATION
Trying out what you have learned
CONCRETE EXPERIENCE
Having the actual experience
ABSTRACT CONCEPTUALIZATION
Learning from the experience
REFLECTIVE OBSERVATION
Reflecting on the experience

Time Needed to Treat (TNT) – a tool to help General Practitioners take the lead in prioritizing our time – what's new?

Guidelines in general practice
Environmental Health and Sustainability

Amanda Niklasson[1]
Noa Behrendt[1], Victor M. Montori[2], Hanna Fjeld[1], Johan Bengtsson[3], Minna Johansson[1]
[1] School of Public Health and Community Medicine, Institute of Medicine, Sahlgrenska Academy, University of Gothenburg, Sweden
[2] Knowledge and Evaluation Research Unit, Mayo Clinic, United States
[3] Department of Medical Sciences, Uppsala University, Sweden

Introduction: General Practitioners (GPs) face an overwhelming number of guideline-recommendations. Previous studies have shown that GPs do not have time to follow more than a small fraction of them. Time Needed to Treat (TNT), introduced in 2023 in *the BMJ*, is a method intended to help policy makers consider GPs time as a finite resource that needs to be carefully prioritized. The aim of TNT is to increase the likelihood that we GPs spend our time on the interventions with the greatest importance for the individual, and on patients with the greatest care needs. TNT received a lot of attention and has already been implemented in several international guidelines and processes. At NCGP 2024 in Turku, we introduced the TNT concept.
Aim: We will demonstrate the practical applications of TNT including available tools for estimating TNT, and case studies of how TNT has been implemented and used. We will also discuss ongoing projects, and future research, actively seeking participants' input on how TNT can be used to facilitate for GPs to take the lead in prioritizing how we use our time.
Type of interactivity with participants: We will give a brief introduction to TNT and its current use. We will present a newly developed TNT calculator, freely available online via Choosing Wisely Canada. Participants will get the opportunity to test the calculator and share feedback on usability, applicability, and potential refinements to enhance its clinical relevance. Finally, we will present ongoing TNT research and invite input on future research needs.

Second Victim in primary health care – a workshop on doctors' health

Quality and safety
Health services
Fredrik Berntsson Semb[1]
Eva Arvidsson[1], Naldy Parodi López[1], Marek Czajkowski[1], Cornelia Brusmark[1], Ulrika Elmroth[1]
[1] SFAMQ (The Swedish Association of General Practice - Quality and Patient Safety Council)

Introduction: General practitioners in Europe experience increased stress in their working lives, which also affects their private lives and health. In recent years, we have seen an upswing in the focus on how health care workers are affected by Patient Safety Incidents. Studies have shown that the effects both on professional performance and personal health can be severe and, in some cases, long lasting.

During the annual meeting of Swedish General Practitioners in May 2025, we gave a presentation on the concept of the "second victim", focusing on the perspective of a primary care setting. Colleagues had the opportunity to give their reflections on what they found helpful and what they would like to learn more about. These insights, together with new tools for support of second victims form the basis for this workshop
Aim: To present strategies for supporting health care workers involved in a patient safety incident and, through collaborative discussion, explore facilitators and barriers to apply these in primary health care.

Learning objectives:

- To understand the concept of Second Victim
- To become familiar with tools designed to support Second Victims
- To gain knowledge on how to integrate these strategies in the every-day-practice

Type of interactivity with participants: Short lectures combined with group discussions based on the presentations and participants' own experiences.

Turn Confusion into Competence: Hands-On ICIT Workshop

Other
Clinical General Practice
Cathrine Abrahamsen[1]
Karin Kogstad
[1] Faculty of Medicine, Department of General Practice, University of Oslo, Oslo, Norway

Introduction: Patients with persistent physical symptoms (PPS) are common in primary care and often lead to reduced function, impaired quality of life, and decreased work participation. Patients frequently feel misunderstood, and general practitioners (GPs) often experience frustration due to limited treatment options. I developed The Individual Challenge Inventory Tool (ICIT) ,a structured work-focused communication tool designed to help GPs explain persistent symptoms, guide positive behavioral activation, and assess the need for sick leave. Our cluster-randomized trial showed that 76% of participants receiving ICIT reported improved function, symptoms, and quality of life, and sick leave decreased by 27 percentage points compared with 4 percentage points in usual care. 35% of Norwegian GPs have so far received ICIT training.
Aim: This workshop aims to introduce GPs to ICIT, provide knowledge about patients with persistent physical symptoms, and train participants in the "explanatory model for long-term physical symptoms." Participants will learn practical strategies to support patients in improving function, quality of life, and work participation.
Type of interactivity with participants: The workshop will combine short presentations with interactive exercises, including case discussions and role-play. Participants will practice ICIT techniques in realistic consultation scenarios, learn to structure communication effectively, and explore methods for stimulating patient behavioral activation.

By the end of the session, participants will be able to integrate ICIT into routine practice, approach patients with PPS with increased confidence, and provide structured support to enhance patients' daily functioning and well-being. The workshop offers practical tools for GPs to manage a challenging patient group in a systematic and evidence-informed way.

When patient stories become our own - an introduction to the Balint method

Lifelong learning and CPD strategies
Continuous Professional Development (CPD)
Jakob to Baben[1, 2, 3]
[1] Ingrid Walan, resident in GP, health care centre Råslätt, Jönköping
[2] Linda Linck, GP, health care centre Hälsan 2, Jönköping
[3] Dorte Kjeldmand, PhD, GP, Jönköping

Introduction: General practice challenges physicians not only intellectually, but also emotionally and ethically. Many GPs experience a tension between the meaningfulness of patient care and a persistent sense of inadequacy — especially in encounters involving complex needs, unclear symptoms, or psychosocial distress. Over time, this may contribute to stress, frustration, and even the decision to leave clinical work.

The Balint method, developed in the 1950s by Michael and Enid Balint in the UK, focuses on the relational and emotional dimensions of the doctor–patient interaction. Rather than solving medical problems, a Balint group aims to explore what a patient story evokes in the physician — emotionally, ethically, and personally. Today, Balint groups are active in over 30 countries and are used in postgraduate training, supervision, and reflective practice for healthcare professionals.
Aim: To provide participants with an introduction to the Balint group method and offer a practical experience of how it can be used to reflect on the emotional aspects of general practice. The workshop aims to increase awareness of inner responses in patient encounters and demonstrate how Balint work can promote professional resilience and empathy.
Type of interactivity with participants: Participants will engage in a live Balint session, facilitated by experienced leaders. One attendee will present a real patient case (no preparation required), followed by a structured group discussion focusing on emotional and relational dynamics rather than clinical problem-solving. The format emphasizes experiential learning and reflective practice in a safe group setting.

Positive Health in primary care

Communication and consultation skills
Continuous Professional Development (CPD)
Karolien Van Den Brekel[1]
Pieter Barnhoorn[2, 3], Solfrid Siqveland[4]
[1] Positive Health international, Utrecht, The Netherlands
[2] Public Health and Primary Care (PHEG), Leiden The Netherlands
[3] Leiden University Medical Center (LUMC), Leiden, The Netherlands
[4] Rosendal Helsesenter, Norway

Introduction: To reduce the growing burden of lifestyle-related chronic diseases, preventive care is essential. Health issues and poor lifestyle habits often have multidimensional causes, requiring collaboration with public health and the social domain. Positive Health – defined as the ability to adapt and self-manage amid social, physical, and emotional challenges – is structured into six domains and widely applied in the Netherlands and internationally. It offers a broad vision on health and a practical tool for person-centered care, emphasizing meaningfulness as a key factor for improving health.
Aim: Aim: Inspire GPs to apply person-centered care with Positive Health.

After the workshop, participants:

- Understand the concept of Positive Health, its link to salutogenesis, and the practical spiderweb tool for GP practice.
- Know research results and added value for GPs and patients in the personalized Positive Health consultations.
- Experience Positive Health personally and learn lessons from the Netherlands and other European/Nordic countries.
- Gain insight into applying Positive Health in practice, communities, and integrated care networks.

Type of interactivity with participants: After a short plenary introduction about the scientific background (15 minutes), the participants will experience the essence of Positive Health. By filling in the spiderweb themselves, discussing about targetgroups and interaction in small groups the participants will learn how to apply Positive Health into practice. There will be discussion about take home messages and (60 minutes). including barriers and success factors and what is needed to be able to start the next day.

SUSTAINABILITY IN GENERAL PRACTICE: LOW-VALUE LABORATORY TESTING

Other
Clinical General Practice

Stefán Hjörleifsson[1]
Carolina Emdin[2], Olga Gilbert[3], Cees Stavenuiter[4], Salome Arnardottir[5]
[1] University of Bergen, Department of Global Public Health and Primary Care, Norway
[2] Specialist in general practice, health centre physician, Umeå, Sweden
[3] Specialist in general practice, health centre physician, Wellbeing service County of Central Uusimaa, Finland
[4] Specialist in general practice, health centre physician, Stenstrup, Danish college of general practice, Denmark
[5] Specialist in general practice, health centre physician, Heilsugæslan Kirkjusandi, Reykjavik, Iceland

Introduction: Laboratory medicine is an area where there is great potential for low-value care, resulting in opportunity costs and sometimes harm to patients. The use of many laboratory tests is known to be increasing across different sites with varying awareness of benefits, costs and harms. Excessive belief in the ability of tests to identify disease and insufficient awareness of false positives, overdiagnosis and downstream consequences of inappropriate use may fuel circles of increased use and demand. Paradoxically, overuse can even go hand in hand with the underuse of other tests or for other patients.
This workshop is arranged by the Nordic federation of general practice Committee on sustainability and value-based care. Taking recent initiatives to ensure the sustainability of healthcare systems in the Nordic countries as our point of departure, we will provide a focused introduction to low-value use of laboratory tests in general practice through both mapping and analyzing such practices and initiatives to direct lab use away from low-value care.
Aim: Participants will learn about low-value practices involving laboratory testing, initiatives to address inappropriate use, and the importance of such initiatives to bolster the sustainability of healthcare systems. Furthermore, they will share ideas about engaging with low-value laboratory testing in their own settings.
Type of interactivity with participants: Feedback and perspectives will be elicited from participants using Mentimeter. Participants will then work together in small groups to discuss low-value laboratory testing in different contexts and initiatives to deal with this problem. Finally, a plenary discussion will sum up ‘take home messages’.

Sustainable solutions to reduce inequity in general practice

Access to care and service delivery
Health Equity
Anne Holm[1]
Jannik Falhof[2]
[1] Center for general practice, University of Copenhagen
[2] Lægefællesskabet i Grenaa

Introduction: Despite universal healthcare in the Nordic countries, significant inequities in health persist. General practice is in an optimal position to counter inequality in health though patient-centered care and relational continuity. However, some patients continuously face barriers in accessing general practice and receiving optimal care. In addition, general practitioners caring for a high number of patients with social vulnerability or multimorbidity are at increased risk of burnout. A number of recent research studies highlight the need for sustainable, system-level approaches to address inequity and strengthen the capacity of primary care to meet the needs of underserved populations. This workshop brings together research-based insights and practical experience to explore solutions that can be implemented across the Nordic countries.
Aim: The workshop aims to present and discuss evidence-based and practice-based strategies to reduce inequity in general practice. Participants will:

1. Gain insight into practical and research-based solutions to counter inequity in general practice
2. Discuss organizational or cultural differences across the Nordic countries hindering or facilitating solutions to reduce inequality in general practice
3. Reflect on how sustainable, equity-oriented approaches can be adapted to their own contexts.

Type of interactivity with participants: The workshop consists of two short presentations on research and practice perspectives followed by structured interaction. After the presentations, participants will engage in small-group discussions to identify local challenges, explore potential adaptations, and exchange examples from their own settings. Groups will then share key takeaways in a plenary session and the presenters will sum up the key messages.

Social Prescribing Across Europe: Innovations, Challenges, and Primary Care Practice

Preventive programs
Prevention

Anita Jensen[1, 2]
Susanna Althini[3, 4], Paula Bergman[5, 6], Berit Enggaard Kaae[7, 8], Wolfram Herrmann[9, 10], Katerina Javorska[10, 11], Millie Kealy-Jensen[12], Joyce Kenkre[10, 13], Ulf Måwe[4], Claus Rendtorff[7, 8], Tobba Sudmann[14], Hans Thulesius[2, 4, 10, 15, 16, 17]
[1] Region Skåne, Sweden
[2] Lund University, Sweden
[3] Region Gotland, Sweden
[4] Swedish Association of General Practice
[5] Jönköping University, Sweden
[6] Region Jönköping, Sweden
[7] Social Henvisning København, Denmark
[8] Copenhagen University, Denmark
[9] Berlin Institute of General Practice, Charite, Germany
[10] WONCA Special Interest Group for Social Prescribing and Community Orientation
[11] Charles University, Czech Republic
[12] Independent Consultant in Public Health, Svendborg, Denmark
[13] University of South Wales, Wales UK
[14] Western Norway University of Applied Sciences, Norway
[15] Linnaeus University, Sweden
[16] Region Kronoberg, Sweden
[17] Riga Stradins University, Latvia

Introduction: Social determinants of health—isolation, income, education, housing, and community belonging—are more influential on health outcomes than traditional risk factors like smoking. Primary healthcare is experiencing increasing pressure due to rising multimorbidity, workforce strain, and growing social complexity of patients. Social Prescribing has emerged as a person-centred approach that links individuals to meaningful non-clinical activities and social participation in their local community. By shifting from “What’s the matter with you?” to “What matters to you?”, Social Prescribing supports strengthened collaboration between healthcare and civil society. UK, Sweden, Denmark, Norway, Germany, and the Czech Republic are exploring diverse models adapted to their local contexts. This workshop gathers practitioners and researchers from across Europe to compare experiences, highlight innovations, and discuss practical challenges in implementing Social Prescribing within primary healthcare.
Aim: The workshop aims to:

1. Present European case examples of Social Prescribing

2. Explore barriers and enablers related to workforce capacity, community collaboration, and cultural adaptation.

3. Provide participants with inspiration for integrating Social Prescribing into their own healthcare settings.

4. Create shared understanding of wellbeing-oriented, community-based activities.

Type of interactivity with participants: Participants will engage in brief group singing as an evidence-informed wellbeing activity showing how simple, joyful actions can be integrated into Social Prescribing programs and strengthen group cohesion. In addition, small “taste journeys” featuring edibles from participating countries will offer a sensory exploration of cultural diversity—illustrating how food, community, and identity contribute to social activities. These interactive moments anchor the workshop’s message: that Social Prescribing can engage the whole person through mind, body, culture, and community.

AI for Administrative and Communicative Tasks in General Practice: Navigating Opportunities and Risks

Artificial intelligence and decision support
Digitalization and Technology

Elisabeth Assing Hvidt[1]
Tuomas Koskela[2], Lars Christian Lervik[3], Veronica Milos Nymberg[4], Linn Okkenhaug Getz[3]
[1] University of Southern Denmark, Research Unit for General Practice
[2] Tampere University
[3] Norwegian University of Science and Technology
[4] Lund University

Introduction: Artificial intelligence (AI), including generative AI and large language models, is currently transforming general practice by re-shaping administrative and communicative tasks through tools like ambient scribes, chatbots, and AI-assisted drafting of clinical documents. These technologies enable transcription and summarization of clinical interactions, assist in drafting patient communications, and support writing of sick and medical assessment reports based on EMR input, tasks often regarded by general practitioners (GPs) as burdensome.
Aim: The aim of the workshop is to collaboratively identify the opportunities and risks that these AI tools for administrative and communicative tasks present, including impacts on clinical quality and efficiency, patient safety, GP professional roles, patient trust, and ethical considerations.
Type of interactivity with participants: This interactive workshop begins with a short introduction to three prevalent AI technologies in use: ambient scribes for note-taking, chatbots for drafting of patient query responses, and AI-assisted generation of sick reports. Participants will then break into smaller groups to discuss each technology, focusing on real-world experiences and applications, current capabilities, and challenges. Through case-based exercises and dialogue, participants will critically assess whether AI tools represent a genuine gamechanger in administrative tasks and what practices should be encouraged or avoided.

Organised by the NorDigNet, the session aims to foster collective insights and learning in regard to responsible future integration of AI in general practice.

Proposed Timetable

0-20 min: Introduction to three AI technologies in practice

20-40 min: Small group discussions on benefits and risks

40-55 min: Group reporting and plenary dialogue on outcomes

55-60 min: Closing remarks and future outlook

The GP–patient relationship in palliative care in the Nordic countries

End-of-life care
Clinical General Practice
Anne Fasting[1]
Thomas Gorlén[2], Elinor Nemlander[3]
[1] General Practice Research Unit, Department of Public Health and Nursing, NTNU, Norwegian University of Science and Technology, Trondheim, Norway
[2] Gentofte, Denmark
[3] Karolinska Institutet, Sweden.

Introduction: Introduction
A core value for general practice in the Nordic countries is promotion of the doctor-patient relationship, continuity of care and building of trust. Good palliative trajectories build on long-lasting relationships between the general practitioners (GPs), patients and their families.

According to the Lancet Commission, death must be seen both as a physiological event and as a relational and spiritual process. In the palliative phase, a strong biomedical focus may become a barrier to good care and must yield to the acceptance of death as an inevitable outcome. For GPs, this phase can be both personally challenging and rewarding.

GPs' involvement in palliative care varies between the Nordic countries. Active GP participation, including advance care planning (ACP), promotes continuity, sustainability and equity in the service provision.
Aim: Aim
We aim to debate the GP's role in palliative care in the Nordic countries, focusing on the doctor–patient relationship, continuity, sustainability and on learning from different ways of working with patients with life limiting diseases.
Type of interactivity with participants: Type of interactivity with participants
The workshop will be interactive and case-based, exploring:

- The GP's role in palliative care
- Differences and similarities between countries
- What can we learn from each other
- How GP involvement benefit patients
- How can GPs be supported to take a more active role in the palliative trajectories?

Participants will gain practical insights and inspiration to further develop the role of GPs in palliative care in their own settings.

GLP-1 Analogues in Primary Care: Experiences, Challenges, and Ethical Considerations

Obesity and type 2-diabetes
Clinical General Practice

Bente Prytz Mjølstad[1]
Karin Mossberg[2, 3, 4], Guðrún Ágústa Sigurðardóttir[5], Rasmus Køster-Rasmussen[6, 7], Hálfdán Pétursson[2]
[1] General Practice Research Unit, Department of Public Health and Nursing, Faculty of Medicine and Health Sciences, Norwegian University of Science and Technology, NTNU, Trondheim, Norway
[2] Public Health and Community Medicine, University of Gothenburg
[3] Närhälsan Vårdcentralen Herrestad
[4] Forskning, Utbildning, Utveckling & Innovation (FoUUI) primärvård, Fyrbodal, Västra Götalandsregionen
[5] Centre of General Practice, Research Unit for General Practice and Section of General Medicine, Department of Public Health, University of Copenhagen, Denmark
[6] Department of Public Health, Section of General Practice, University of Copenhagen, Denmark
[7] Praktiserende læge på Læsø

Introduction: The rapid increase in the use of GLP-1 analogues (e.g., semaglutide) for obesity treatment has introduced some ethical and practical challenges for general practitioners (GPs). Among these are how benefits can be balanced against risk of harm, medicalization and overtreatment; what role primary care should play in initiating, continuing, and discontinuing therapy; and how to address social inequalities in access. Uncertainties about the long-term effects, both individual and on the population level, increase the complexity of the challenge
Aim: This workshop will present Nordic research and clinical experiences, including GPs' prescribing practices, patients´ experiences of use and discontinuation, and perspectives from Sweden, Norway, Iceland and Denmark. We will also critically discuss long-term uncertainties and their implications for practice and policy.
Type of interactivity with participants: Through interactive group discussions, followed by plenary discussion, practical and ethical dilemmas will be explored: Lifelong vs. periodic treatment? Stricter thresholds for initiation and continuation? How do we manage patient expectations and follow-up? Participants will reflect on how long-term uncertainties influence clinical decisions and discuss the threshold for initiating and continuing treatment. They will also identify key experiences from Nordic GPs to inform the responsible use of GLP-1 analogues in primary care.

Enhancing confidence and competence in telehealth consultations for General Practitioners.

Communication and consultation skills
Continuous Professional Development (CPD)

Katrina Anderson[1, 2]
Katelyn Barnes[1, 2], Stephen Martin[1], Ashvini Munindradasa[1], Petya FItzpatrick[1]
[1] School of Medicine and Psychology, Australian National University
[2] Office of General Practice and Primary Care , Directorate of Health and Community Services

Introduction: Telehealth has become rapidly established in all areas of General Practice in Australia since the COVID-19 pandemic. It has become an adjunct to face to face clinical care, but it presents unique challenges for consulting (1). In 2025 we developed a suite of educational resources that were designed to support the busy general practitioner, and the practice team to enhance their confidence and competence when consulting via telehealth. Much of the available resources in Australia are focused on technical practicalities, but our research showed that it is the complexity of patient expectations and communication that can lead to uncertainty. In 2025 we developed and piloted a website smorgasbord of educational activities called the *Telehealth Professional Development – Guided Collegiate Workshops* that create conversations around challenges with telehealth. General practitioners found them very useful and engaging

Aim: 1. Explore Telehealth challenges through interactive small group educational activities that explore telehealth challenges. 2. Identify skills and knowledge required for more complex Telehealth consultations

Type of interactivity with participants: This workshop will lead participants through small group case studies designed to enable participants to think through the challenges and tricky boundary issues of Telehealth. Participants will also trial a rapid-fire discussion game that we have developed for GPs to use in practice-based peer meetings. The activities focus on the doctor patient interaction and communication when using telehealth. Participants will be able to take the tools back to their own practices to create interactive small group conversations among staff to enhance professional development in their own practice context.

Practice-Based Research Networks in Primary Care

Innovation in primary care systems
Health services

Susanne Reventlow[1]
Anna Mygind Rasmussen[2, 3], Anne Møller[1], Dorte Ejg Jarbøl[4, 5], Janus Laust Thomsen[6], Jens Søndergaard[4, 5], Jesper Lykkegaard[4, 5], Lars J. Hansen[1], Linda Aagaard Rasmussen[3], Line Flytkjær Virgilsen[3], Nanna Herning Svensson[4], Niels Kristian Kjær[4, 5], Peder A. Halvorsen[7], Per Kallestrup[2, 3], Rune Munck Aabenhus[1], Sune Holm Pedersen[1], Tina Lein Rasmussen[4], Tuomas H. Koskela[8]
[1] Centre for General Practice at the University of Copenhagen, Denmark
[2] Aarhus University, Department of Public Health, Denmark
[3] The Research Unit for General Practice Aarhus, Denmark
[4] The Research Unit for General Practice Odense, Denmark
[5] University of Southern Denmark, SDU, Department of Public Health
[6] Centre for General Practice at the University of Aalborg, Denmark
[7] Research Unit for General Practice, Department of Community Medicine, UiT – the Arctic University of Norway
[8] Faculty of Medicine and Health Technology, Tampere University and The Wellbeing Services County of Pirkanmaa, Finland

Introduction: Practice-Based Research Networks (PBRNs) are instrumental in involving GPs and their patients in high-quality research. PBRNs have been firmly established in the UK, the Netherlands, the US and Canada. Some networks excel in clinical studies, others have succeeded with capturing and reusing clinical data, and some do both. Denmark is currently establishing a national PBRN to strengthen links between primary care research and general practice through formalized collaboration. Similar networks have been successfully set up in Norway and Finland. With a new network in place, there is a potential to increase research collaboration and joint projects across the Nordic countries.
Aim: We wish to identify strengths, weaknesses, opportunities and threats in developing and operating PBRNs in primary care in the Nordic countries. Challenges to be discussed include sustainable funding, data management issues, prerequisites for involving GPs and their patients in research, and cooperation with external partners such as the pharmaceutical industry. We will share examples of studies and experiences and discuss possible ways forward for practice-based research in the Nordic countries. We hope to inspire participants to join and actively engage in a PBRN.
Type of interactivity with participants: Presentations and interactive discussions with participants, both in small groups and in plenum. We invite clinicians, decision-makers and researchers to collaborate in this workshop on developing strong PBRNs as a method for ensuring research-based development of clinical practice.

Toward sustainable prevention: Can Vertical Reviews help reduce pressure on general practice?

Guidelines in general practice
Environmental Health and Sustainability
Noa Behrendt[1]
Amanda Niklasson[1], Victor Montori[2], Mélissa Duran[3], Stéphanie Sidorkiewicz[3], Minna Johansson[1]
[1] School of Public Health and Community Medicine, Institute of Medicine, Sahlgrenska Academy, University of Gothenburg, Sweden
[2] Knowledge and Evaluation Research Unit, Mayo Clinic, United States
[3] Université Paris Cité and Université Sorbonne Paris Nord, Centre for Research in Epidemiology and Statistics, France

Introduction: Preventive medicine has expanded in recent decades and is now overwhelming primary care. For example, GPs would have to work 14 hours every day to provide all recommended preventive care, leaving no time for people who are sick. At the same time, prevention can also be achieved through community-based or structural strategies, such as increased taxes on tobacco, regulations on salt in fast food or city planning that facilitates physical activity. Increased spending on healthcare could paradoxically worsen public health by diverting resources away from such efforts to improve population health. One way to address this problem would be to compare the relative merits of clinical, community and structural strategies to prevent disease at the population level.
In this project, we aim to develop, test and implement a method to enable such comparisons, which we call Vertical Reviews. Importantly, Vertical Reviews would clarify the trade-offs between the benefits, harms and burdens of each strategy and thereby facilitate more rational, equitable and sustainable policy decisions on how to improve public health.
Aim: We will introduce the concept of Vertical Reviews, illustrate why multilevel comparisons may be needed to make prevention more sustainable for GPs and invite participants' perspectives.
Type of interactivity with participants: We will present the Vertical Review framework and initial examples. In small groups, participants will discuss feasibility, methodological challenges and clinical relevance in primary care.

Balancing Early Cancer Detection and Sustainability in Primary Care: Meeting and Managing Expectations

Cancer
Clinical General Practice
Elinor Nemlander[1, 2]
Helena Brändström[3, 4], Maria Fagerquist[5], Karin Liljelund[6, 7], Mats Frisk[7, 8], Marianne Olsson[6], Lotta Westerberg[6]
[1] Liljeholmens University Primary Care Centre, Region Stockholm
[2] Karolinska Institutet
[3] Regional cancer centre in collaboration
[4] Swedish Association of Local Authorities and Regions
[5] LIF – The Research-Based Pharmaceutical Industry
[6] The Swedish Cancer Patient Network Sweden
[7] The Swedish Lung Cancer Association
[8] PALEMA Cancer Association

Introduction: As populations age and multimorbidity rises, the workload in the already strained primary care expands across all domains. Simultaneously, new national cancer strategies expect general practice to take increasing responsibility for cancer - including for prevention and early detection with the intention to achieve better outcomes through earlier treatment. This growing mandate risks being added without proportional resources, undermining both quality and sustainability. Early cancer detection in primary care is complex. Investigation thresholds are unclear, symptom prevalence differs from secondary care research populations, and constraints must be balanced against timely diagnosis and patient safety. Delayed or missed diagnosis remains the most common cause of complaints in primary care.
Aim: To explore how early cancer detection can be strengthened in a resource-efficient, equitable and sustainable way within primary care.
Type of interactivity with participants: This interactive workshop will bring together general practitioners with representatives from Regional cancer centres, patients associations and industry. Participants will engage in:

- facilitated case-based discussions illustrating uncertainty, risk thresholds and investigation dilemmas;
- small-group scenario work on designing sustainable diagnostic pathways;
- patient-voice reflections on safety, trust and communication in early cancer detection;
- system-level exercises identifying feasible changes and clarifying what regional cancer centres, major cancer fund organizations and the pharmaceutical industry can contribute to support primary care.

Participants will leave with new insights, practical strategies and shared priorities for building a more sustainable and effective primary-care-based approach to early cancer detection that supports both patients and professionals.

GP training in the Nordic countries – what can we learn from each other?

Other (only selected in exceptional cases)

Joachim Froelund[1, 2, 3, 4, 5, 6]

[1] Katrina Tibballs, University of Oslo, Department of General Practice, Norway

[2] Anne Mette Torp, General Practice Denmark (Lægerne Valdemarsgade, Aarhus), Denmark

[3] Joachim Frølund Hansen, General Practice (Laegernes Hus Ikast) and Aarhus University, Denmark.

[4] Margrét Ólafía Tómasdóttir, Development Centre for Primary Health Care in Iceland.

[5] Martin Lägervik, Futurum – The Academy for Health and Care, Region Jönköping County, Jönköping, Sweden.

[6] Veera Veromaa, Academic Health and Social Services Centre, Wellbeing Services County of Southwest Finland and University of Turku, Finland.

Introduction: The Nordic Specialist Training Committee (NSTC) is established by the Nordic Federation for General Practice (NFGP) to promote collaboration and inspiration in specialist training for general practice across the Nordic countries. In this workshop, we will present the training programmes for specialist training in each country and discuss the key strengths of each system and what we can learn from one another.

Aim: Our aim is for participants to gain an overview of how GP training is organised in each Nordic country and to take home inspiration to preserve and improve the quality of specialist training in their own country.

Type of interactivity with participants: After a brief overview of the five Nordic GP training systems, participants will engage in group discussions across the Nordic and other countries. These discussions will focus on areas such as training in the GP and hospital settings, leadership training, theoretical training, and competence assessment.

The goal is to identify successful practices that can inspire others. Each group will then summarise their discussions, and the workshop's final outcome will be a written report outlining what GPs and trainees in the Nordic countries want to improve in their training programmes. It will also highlight aspects that should be preserved and further developed.

”From pain to fatigue – explaining functional symptoms with inner stability and flow”.

Patient centered care
Clinical General Practice
Arwa Josefsson[1]
[1] Specialist in general practice and psychiatry. Licenced psychotherapist.

Introduction: A large number of physicians report difficulties in explaining functional symptoms to patients in a way that leads to a shared understanding and a way forward. Clinicians often overlook both the importance of regulating themselves in challenging situations, as well as the need for a clear and comprehensible language when they explain persistant symptoms that don’t come from a medical condition.
Aim: The aim of this workshop is to provide clinicians with opportunities to practice self-regulation and to learn concrete ways of explaining functional symptoms – whether the issue is chronic pain, fatigue or anxiety.
Type of interactivity with participants: Type of interactivity: Hands-on practice including role-play among participants.

Mental health consultations in general practice: how to apply a problem-solving approach in daily clinical care

Mental health
Clinical General Practice
Anne Søjbjerg[1]
Stinne Eika Rasmussen[1], Kaj Sparle Christensen[1, 2], Bo Christensen[1, 2], Anna Mygind[1, 2], Anette Fischer Pedersen[1, 2]
[1] Research Unit for General Practice, Aarhus, Denmark
[2] Aarhus University, Department of Public Health, Denmark

Introduction: As a clinician in general practice, do you ever question whether the support you provide to patients with psychological concerns is truly effective? Do you find it challenging to maintain a clear structure in consultations and to ensure meaningful progress over time? And do you sometimes notice yourself trying to fix the problems for patients, rather than guiding them to discover their own insights and solutions?

Mental health concerns account for over 10% of consultations in general practice. Yet, many clinicians describe uncertainties about how to best structure these encounters and support patient progress. Common challenges include maintaining focus, avoiding 'problem-taking' instead of 'problem-guiding', and ensuring that the patient remains an active participant in their own change process.

A structured problem-solving approach offers a practical and evidence-informed framework that fits the realities of general practice. Rather than being a traditional form of therapy, it is a flexible consultation strategy that helps clinicians stay in a guiding role, supports patient autonomy, and reduces emotional burden and care fatigue. Importantly, the method can be applied within ordinary consultation timeframes and across a wide range of psychological presentations.
Aim: Participants are introduced to a structured problem-solving approach and its key components, enabling them to begin applying the method in their own clinical practice.
Type of interactivity with participants: The workshop includes case-based discussions, practical exercises, and small-group activities. Participants will work through clinical examples, practice core elements of the problem-solving approach and receive materials designed to support immediate implementation in general practice.

Vacant positions in general practice: Are locums the only viable option?

Continuity of care
Clinical General Practice

Henrik Hansen Wallumrød[1, 2]
Anette Fosse[1, 2], Thorbjörn Lundberg[3, 4], Jane Ferguson[5, 6], Christos Grigoroglou[7, 8], Aina Jansen[2], Juha Auvinen[9, 10]
[1] UiT, The Arctic University of Norway
[2] Norwegian Center for Rural Medicine, Norway
[3] Umeå University, Sweden
[4] Department of Public Health and Clinical Medicine, Sweden
[5] University of Birmingham, United Kingdom
[6] Health Services Management Centre, UK
[7] University of Manchester, United Kingdom
[8] Center for Health Economics, UK
[9] Research Unit of Population Health, University of Oulu, Oulu, Finland
[10] Wellbeing Services County of North Ostrobothnia, Oulu, Finland

Introduction: Introduction: Temporary healthcare staff are an essential part of handling vacancies in general practice. However, temporary healthcare staff are tied to loss of continuity of care, they tend to be costly and the research into this topic is sparse. Nordic countries experience and handle the challenges of vacancies in general practice differently. Therefore, there is much to gain from sharing perspective on the issue across the Nordic nations - especially between clinicians and researchers.
Aim: Aim: In this workshop we aim to discuss the challenges and opportunities tied to vacancies in general practice and identify strategies for handling vacancies and temporary staff in Nordic general practice. Furthermore, we seek to identify the clinicians' research needs and let them directly inform the direction of future research. Finally, we aim to connect researchers across nations interested in the phenomenon of temporary work and vacancies in general practice.
Type of interactivity with participants: Type of Interactivity with Participants: The workshop will be organized in three parts. First part will consist of presentations from researchers from England, Finland, Sweden and Norway; providing insights and perspectives into the current state of research on vacancies in general practice, locum doctors and the work-leave rotation scheme. For the second part, the participants will be arranged into groups where they will be sharing and exploring their experiences and perspectives on handling vacancies in general practice. In the third part we all discuss in plenum the findings of the groups and summarize the key takeaways.

"Am I going into menopause?" Discussions around the rising awareness in society on menopause and its symptoms

Women's health
Clinical General Practice
Cecilia Lundin[1]
Marianne Natvik[2]
[1] Samariterhemmets vårdcentral, Region Uppsala
[2] Department of General Practice, University of Oslo

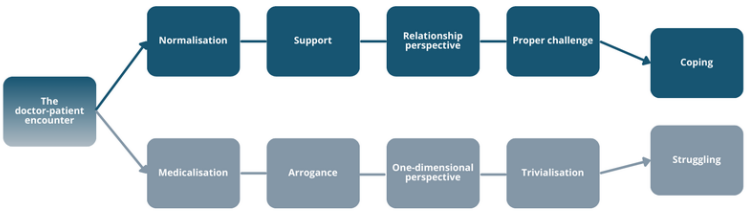
Introduction: In 2025, the Swedish National Board of Health and Welfare launched their recommendations on how climacteric care should be organized in Sweden.
The message is clear: primary care should take more responsibility for women with symptoms related to menopause.
In addition, we should increase our "climacteric awareness" and be more prone to prescribe hormone replacement therapy (HRT).
Further, the Swedish Society of Obstetrics and Gynecology have recently updated their treatment recommendations for women going through menopause.
Overall, menopause and its implications for health and wellbeing among women, has been increasingly discussed during recent years.
Aim: We will review how climacteric symptoms and MHT have been viewed over recent decades and consider whether rising interest in menopause represents medicalisation or better support for women midlife. We will discuss what implications this increased awareness, in addition to national recommendations and guidelines, may have for primary care and general practitioners, including possible downsides of more liberal attitudes towards MHT use and how they might be managed, as well as potential benefits
Type of interactivity with participants: After an introduction on menopause care guidelines, we will, in small groups, discuss our experiences and perspectives on women who seek help for menopause-related symptoms, using case reports to illustrate different challenges.

When relationships affect health: How GPs can address sexual and relational problems in consultations.

Patient centered care
Clinical General Practice
Siri Dalsmo Berge[1]
[1] General Practice Research Unit, NORCE Research, Norway

Introduction: General practitioners (GPs) frequently encounter patients whose health problems are closely linked to relationship difficulties, including concerns related to intimacy and sexuality. Such issues occur across age groups and clinical conditions but are often under-addressed in primary care due to time constraints, discomfort, and uncertainty about professional roles. Relationship problems are well-established risk factors for both physical and mental illness yet remain under-recognized in routine consultations. There is a clear need for practical, structured approaches that enable GPs to address relational and sexual issues sensitively and effectively within everyday practice.
Aim: To strengthen GPs' confidence and practical skills in addressing sexual and relational problems in general practice. Participants will be introduced to evidence-based, primary-care-appropriate communication frameworks, including the PLISSIT and BETTER models, as familiar entry points for initiating and legitimizing such conversations. The workshop also presents relational tools adapted from couples therapy, together with a relational consultation model illustrating different pathways in GP encounters that may support patients' coping with couple relationship problems or contribute to ongoing struggle. The focus is on helping GPs explore relational dynamics, avoid common clinical pitfalls such as medicalization or trivialization, and provide first-line support without moving into formal psychotherapy.
Type of interactivity with participants: This 90-minute workshop is highly interactive and combines brief introductory inputs with active participant engagement. Interactive elements include small-group discussions based on clinical cases, guided reflection exercises, and short role-play scenarios focusing on how to open conversations about sexuality and couple relationships, respond to emotional cues, apply relational perspectives in time-limited consultations, and maintain professional boundaries.

Figure 1. Pathways in GP consultations leading to patients' coping with couple relationship problems.



The ADHD tsunami: insights from patients, GPs and public health research

Overdiagnosis and overtreatment
Environmental Health and Sustainability
Alexandra Brandt Ryborg Jønsson[1, 2]
John Brandt Brodersen[2], Bente Prytz Mjølstad[3, 4]
[1] Section of Health and Society, Department of People and Technology, Roskilde University, Denmark
[2] General Practice Research Unit, Department of Community Health, Faculty of Health Sciences, Arctic University of Norway
[3] General Practice Research Unit, Department of Public Health and Nursing, Faculty of Medicine and Health Sciences, Norwegian University of Science and Technology, Trondheim, Norway
[4] Saksvik legekontor, Malvik commune

Introduction: In recent decades, the rise in ADHD diagnoses has prompted growing concern among scholars, clinicians, and policymakers about the epistemic foundations and societal implications of diagnostic expansion. Despite being framed as a neurodevelopmental disorder with high heritability, ADHD lacks clear biological markers, relies on self-reported symptoms, and shows notable prevalence differences across Nordic countries and within national regions, highlighting cultural and diagnostic variation. In this relation, GPs are often described as the guardians of normality, a role that becomes crucial in resisting the medicalization of everyday challenges, not least in childhood. How is the tsunami of ADHD affecting general practice?
Aim: The workshop aims to gain insights to the perceptions of clinical encounters between patients seeking an ADHD diagnosis and GPs, and enhance a critical discussion of practice that can impact clinical practice and inform future guidelines
Type of interactivity with participants: Three short introductions to 1) GPs as Guardians of Normality? Childhood Under Diagnostic Pressure 2) overdiagnosis of ADHD and 3) Self-diagnosis and the role of social media followed by group discussions to answer:

a) How are patients seeking ADHD diagnosis handled in you clinic?
b) What are the main challenges and drives behind the rise of ADHD diagnosis from the GP perspective?
c) How can we attend to patients seeking an ADHD diagnosis in a way that can minimize both under- and overdiagnosis?
The authors will record the discussion with participants' consent. Anonymized data will be analyzed and used for an analysis paper, and to inform ongoing work on sustainable healthcare

Clinical guidelines for sustainable general practice - How to decrease patient and planetary harm

Guidelines in general practice
Environmental Health and Sustainability
Karolina Lewandowska[1]
Cees Stavenuiter[2], Hálfdán Pétursson[3], Karin Mossberg[4], Staffan Svensson[5]
[1] GP, The Danish College of General Practitioners and Doctors for Climate, Denmark
[2] GP and board member of The Danish College of General Practitioners, member of standing committee for sustainable healthcare i NFGP
[3] GP, PhD. Dept. of Family Medicine, University of Iceland; School of Public Health and Community Medicine, University of Gothenburg
[4] GP, Public Health and Community Medicine, University of Gothenburg, Sweden
[5] GP and Clinical Pharmacologist, PhD Nötkärnan Bergsjön Health Centre/vårdcentral; Department of Pharmacology at University of Gothenburg Gothenburg, Sweden

Introduction: General practitioners are vital in addressing threats to patient and planetary health. Modern healthcare faces significant challenges from defensive medicine, overdiagnosis and overtreatment. These practices increase healthcare costs, the use of human resources and increase healthcare's environmental footprint. Clinical guidelines may constitut e powerful
tools for shaping day-to-day medical decisions
and promoting sustainable practice, especially if authored by
general practitioners in cooperation with professional authorities.
Aim: This workshop aims to explore:
A) the existing and potential impact of clinical guidelines in reducing patient and environmental harm from healthcare; and
B) the GPs' role in developing feasible and sustainable guidelines.

Contrasts and similarities between the
Nordic countries will be explored, drawing on examples such as the Danish guideline on deprescribing. Strategies and tools, such as estimates of Time Needed to Treat, to support integration of sustainability and patient safety into guideline development will be discussed.
Type of interactivity with participants: The workshop
will feature concise presentations and interactive group discussions aimed at identifying and consoli dating tools and frameworks that support the development of sustainable guidelines.

Participants will engage in evaluating current national guidelines
and identifying concrete opportunities for increased Nordic collaboration and harmonization.
By highlighting the interplay between clinical care, resource allocation, and guideline design, the workshop will offer actionable strategies to promote both patient and planetary health in general practice.

We invite GPs, guideline developers and policymakers to

join our interactive session, share experiences,
and strengthen Nordic partnerships for sustainable primary care.

Simple ways to improve everyday practice – examples from Nordic countries

Lifelong learning and CPD strategies
Continuous Professional Development (CPD)
Jörgen Månsson[1, 2, 3, 4]
[1] Jörgen Månsson, School of Community Medicine and General Practice, Institute of Medicine, Sahlgrenska Academy, Gothenburg University, Sweden
[2] Aapo Tahkola, Wellbeing Services County of Central Finland and Finnish Institute of Health and Welfare (National Clinical Quality Registries), Finland
[3] Thomas Bo Drivsholm, KiAP, The Danish National Quality Unit of General Practice, Denmark
[4] Eva Arvidsson, Department of Health, Medicine and Caring Sciences, Linköping University, Linköping, Sweden

Introduction: In all Nordic countries, general practitioners (GP) face full workdays characterized with constant prioritization and limited opportunities to devote time to quality improvement activities. However, tools to facilitate and support continuous quality improvement are available across the Nordic region, although their design and implementation vary between countries.
This workshop will present and discuss practical examples from the Nordic countries of such tools useful for GP patients in the everyday clinical practice. What can we learn from one another, and how can we build on each other's work? Are there ideas from our neighbouring countries that we can adopt?
Aim: To share concepts and practical examples of quality improvement for clinical practice —for instance through quality circles and access to data on one's own patient population. After completing the workshop, participants should feel inspired and have enhanced knowledge and skills to perform quality improvement activities in their everyday clinical practice.
Type of interactivity with participants: Brief introductory presentations from the Nordic countries followed by group discussions focusing on clinical applications.

‘Curiouser and curiouser’: fostering curiosity in general practice

Undergraduate and postgraduate medical education
Continuous Professional Development (CPD)
Simon Morgan[1]
[1] General Practice Supervision Australia

Introduction: Curiosity is a professional value rarely made explicit in medical curricula, yet it sits at the heart of excellent general practice. Evidence suggests that curiosity enhances diagnostic reasoning, supports lifelong learning, reduces cognitive bias, and deepens patient-centred care. A curious GP is more likely to ask better questions, tolerate uncertainty and adapt their practice in the face of complexity.

This interactive workshop will assert two propositions: first, that curiosity is a defining attribute of high-quality general practice; and second, that curiosity is not merely an innate trait, but a professional capability that can be deliberately nurtured by GP trainers and medical educators.

Participants will explore curiosity in three key contexts: medical information (curiosity as a driver of lifelong learning), research (curiosity as the engine of discovery), and understanding patients (curiosity about “what makes this person tick”).

We will examine how curiosity can be taught, modelled and normalised in training environments — including for learners shaped by rote-based educational systems. We will even ask whether curiosity can be “faked” at first, until it becomes habitual.

Are you curious to attend?
Aim: By the end of the workshop, participants will be able to:

1. Describe the role of curiosity in safe, effective, and high-quality general practice
2. Identify how curiosity influences clinical reasoning, lifelong learning, and patient-centred care
3. Explore practical strategies to model and cultivate curiosity in GP trainees and students
4. Reflect on how curiosity can be embedded as a shared professional value within GP training.

Type of interactivity with participants: Large group discussion
Small group activities

Psyk eller trett: Navigating the Grey Zone of Early Mental Distress in General Practice

Mental health
Clinical General Practice

PhD Student Simon Graff[1]
Professor Kaj Sparle Christensen[1], Professor Stefan Hjørleifsson[2], Professor Øystein Hetlevik[2]
[1] Research Unit for General Practice, Aarhus University, Denmark
[2] Allmennmedisin,Institutt for global helse og samfunnsmedisin, UiB, Norway

Introduction: Stress, anxiety and depression (SAD) account for a substantial proportion of mental health consultations in Nordic general practice. Patients often present with non-specific symptoms such as fatigue, sleep disturbance and reduced functioning, making diagnostic differentiation challenging.

The upcoming Danish guideline emphasises a function-oriented, stepped-care approach to SAD, encouraging proportionate diagnostic clarification, treatment and sickness certification that aligns with the patient's needs. In Norway, a persistent rise in mental health–related sickness absence highlights a parallel challenge: when does time away from work support recovery, and when does it risk impairment? General practitioners operate at the intersection of patient expectations, clinical uncertainty and grey areas.

Aim: This workshop aims to explore how general practitioners can navigate diagnostic uncertainty and different care pathways in patients presenting with early signs of mental distress and SAD. Through a comparative Danish–Norwegian perspective, participants will examine when symptoms warrant a diagnosis, treatment, or a temporary work absence, and when they reflect life stress best managed within everyday coping frameworks. The overarching goal is to ensure that diagnostic assessment and treatment are proportionate to the patient's needs, within a function-first, stepped-care approach.

Type of interactivity with participants: The 90-minute workshop combines short presentations and group activities. Danish presenters introduce key elements from the new guideline and clinical reasoning tools, while Norwegian colleagues present national experiences on sickness absence and return-to-work. Participants engage in case discussions and shared reflection to develop practical strategies for managing uncertainty and supporting realistic functional outcomes. The session concludes with a joint "checkpoint" on managing mental distress/disease in general practice.

Low value and harmful care in primary health care

Overdiagnosis and overtreatment
Environmental Health and Sustainability
Trygve Ellingsen[1, 2]
Thomas Omdal[3], Alexandra Jønsson[2, 4], Oskar Lindfors[5, 6], John Brodersen[2]
[1] Hommelvik Legekontor (GP office), Malvik, Norway
[2] Department of Community Medicine, Faculty of Health Sciences, UiT - The Arctic University of Norway, Tromsø, Norway
[3] Department of Global Public Health and Primary Care, University of Bergen, Bergen, Norway
[4] Department of People and Technology, Roskilde University, Roskilde, Denmark
[5] Järpens Health care centre, region Jämtland Härjedalen, Sweden
[6] The standing group on sustainable healthcare in the Swedish college for general practice

Introduction: Growing evidence suggests significant low value and harmful care (LVHC) in modern healthcare, wasting scarce resources and harming patients, healthcare systems, societies and the environment. Several Norwegian hospitals have initiated processes aiming to de-implement LVHC. Similar initiatives can be seen in general practice in Scandinavia. However, clinical guidelines and structural conditions may counteract such initiatives. Persistent focus is warranted to describe and reduce the extent of LVHC in primary health care.
Aim: The workshop aims to create a consensus-based statement with three main aims i) identifying five fields with high risk of LVHC in primary health care, ii) describing the extent of LVHC in these fields and iii) proposing future efforts to minimize LVHC in primary health care.
Type of interactivity with participants: After a short introduction describing ongoing initiatives, five main fields with risk of LVHC in primary health care are selected. Thereafter, the participants are split into groups for each main field, and are asked to answer the following questions:
a) How is LVHC affecting your given field?
b) What are the main drivers?
c) How can we proceed to minimize the extent of LVHC in your given field?

The last 30 minutes will be spent discussing the group's suggestions. The authors will summarize the suggestions into proposals for future efforts which is intended to be published as an opinion paper, and to be used in the NCGP`s work promoting sustainable healthcare.

What Actions do We Need to Take to Achieve an Ideal, Values-Based Primary Care System?

Leadership and organizational development
Health services
Joachim Sturmberg[1]
Anna Stavdal[2]
[1] University of Newcastle, Australia
[2] University of Oslo, Norway

Introduction: Decades of primary care reforms have yielded fragmented, inequitable systems. The Nordic Federation's core values – continuity, appropriateness, equity, person-centeredness, informed care, context-sensitivity, relationship-based practice, and comprehensiveness – define an ideal primary care mindset. Over 30 previously identified specifications (e.g., shared records, cultural safety, multidisciplinary integration, social determinants) operationalise this vision.
Aim: Using constructor theory, participants will classify interventions for over 30 specifications as impossible, possible, or conditionally possible – pinpointing required enablers for transformation. The workshop will yield a prioritised roadmap aligning feasible pathways with general practice's core values.

Type of interactivity with participants: 1. Participants are provided with a map aligning the Nordic values to ideal primary care specifications
2. Constructor Theory Primer – What are constructors, and what are their properties in change management
3. Small group exercise: Groups brainstorm interventions that could realise specifications, then classify them as impossible, possible, or conditionally possible for a values-based primary care system. "What constructors must exist to make it work?" Viable options must align with core values *and* specifications.
4. Collaborative development of an actionable *Roadmap* that prioritises feasible pathways towards an ideal values-based primary care system.

The workshop equips participants to counter vested interest opposition to primary care redesign by demonstrating structurally impossible and values-negating reform proposals.

General Practice of the Future - Climate and Health in General Practice Environmental Health and Sustainability

Sustainable healthcare practices
Environmental Health and Sustainability
Salli Rose Tophøj[1]
Ida Persson Cofina[2], Ulrika Nyhammar[3], Asthildur Arnadottir[1], Karolina Lewandowska[4], Per Geijer[5]
[1] GP, Nysted Lægehus, Grøn Praksis, Research Unit for General Practice SlagelseKøge, Denmark
[2] GP, Vårdcentralen Anderslöv, Läkare för miljön, responsible for sustainability integration into the medical programme, Lund University, Sweden
[3] GP and environmental strategist, Ruds Vårdcentral, Region Värmland, Läkare för miljön, Sweden
[4] GP, Familielægerne Viby Sjælland, Denmark
[5] GP and manager, Vårdcentralen Sorgenfri, Primärvården Skåne, Läkare för miljön, Sweden

Introduction: Climate change poses a major threat to human health, and general practice plays a crucial role in safeguarding population health – both now and in the future.

But how should we work in a world increasingly affected by climate change?
How can we integrate both mitigation (reducing our carbon footprint) and adaptation (minimizing climate-related health risks) in everyday practice?
And what is the sustainability strategy of our respective regions?

General practice is uniquely positioned to respond to this challenge: by promoting healthier, low-carbon lifestyles; by avoiding unnecessary tests, treatments and referrals; and by reducing the environmental footprint of clinical procedures. At the same time, climate change demands that we strengthen heat preparedness and build more resilient healthcare systems to protect vulnerable patients, staff, and pharma.
Aim: This workshop aims to equip general practitioners with practical tools to integrate sustainable and climate-resilient approaches into daily clinical work. Our goal is to inspire colleagues to adopt more sustainable routines and actively contribute to a stronger, more resilient primary healthcare sector.

Grøn Praksis (Denmark) will present guidelines, tools and practical ideas to support sustainable workflows. Läkare för miljön (Sweden) will present educational efforts to enhance skills regarding healthcare sustainability and heat preparedness in primary care when climate change demands specific health care actions. Furthermore, pilot projects from two Swedish regions reveal methods to calculate and reduce climate footprint from primary care.
Type of interactivity with participants: The workshop will combine project presentations with interactive components, including group discussion and a joint brainstorm