Gothenburg - Sweden

100th EGPRN MEETING

8-11 May 2025

EGPRN

EUROPEAN GENERAL PRACTICE RESEARCH NETWORK

Telehealth. Its benefits, quality and safety.

- Programme Book -

www.egprn.org

COLOPHON

Programme Book of the 100th European General Practice Research Network Meeting
Gothenburg, Sweden, 8-11 May 2025

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"EGPRN and Local Organizing Committee would like to especially thank the local volunteers and sponsors for their contribution to this conference"

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Foreword

Telehealth: Its Benefits, Quality, and Safety

The theme "Telehealth: Its Benefits, Quality, and Safety" is timely in today's healthcare environment, where digital innovations are rapidly transforming care delivery. The COVID-19 pandemic accelerated telehealth adoption, revealing both its potential and challenges in ensuring effective, accessible, and safe healthcare.

Key areas of focus for this conference include:

- **Telehealth's Benefits:** Improving access to care, especially for vulnerable and remote populations.
- **Quality in Virtual Care:** Maintaining high standards of care through virtual platforms, supported by AI-driven diagnostics and personalized treatment.
- **Safety in Telehealth:** Ensuring the security of patient data and the reliability of AI-enhanced technologies.
- **AI's Impact:** Exploring how AI shapes telehealth with predictive analytics and clinical decision support, while addressing ethical considerations.
- **Telehealth for All:** Reducing healthcare disparities through broader access and equitable digital solutions.
- **Policy and Regulation:** Adapting regulatory frameworks to ensure the safe and effective use of telehealth and AI.

This conference will provide a crucial platform for healthcare professionals, researchers, and policymakers to exchange ideas and best practices, contributing to the global effort to deliver safe, high-quality, and accessible healthcare through telehealth and AI innovations.

Host Organising Committee

- Hans Thulesius (Chair)
- Cecilia Björkelund
- Anna Wingård Holst
- Naldy Parodi Lopez
- Jörgen Månsson
- Halfdan Pétursson
- Ausra Saxvik
- Andreas Stomby
- Staffan Svensson

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09:00 - 12:00</td><td rowspan="6">Workshop 3: Involving Primary Care Patients in Clinical Research: The Pivotal Role of Practice-Based Research Networks (PBRNs)
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Price is not included in the conference</td><td rowspan="5">Workshop 4: Creating Digital Health Interventions: A Hands-On Workshop with the Computerized Intervention Authoring System (CIAS)
13:00-17:00</td><td colspan="2">Lunch Break
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<tr><td>18:00</td></tr>
<tr><td>19:30 - 21:00</td><td colspan="5">Welcome Reception and Opening Cocktail
Börshuset - Stock Exchange Building. Address: Östra Hamngatan 21, 411 10, Gothenburg
Entery to the building will be granted based on a pre-registered list. Only those whose names are on the list will be admitted, and the doors will be closed at 20:00.</td></tr>
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FRIDAY, 9 MAY 2025		
08:00-08:30	Registration - Ljusgården (Atrium - Ground Floor)	
08:30-08:45	**Selmas Sal** (Ground Floor)	
	Opening of the Meeting by EGPRN Chairperson Prof. Dr. Lieve Peremans	
08:45-09:00	Welcome by Local Host Prof. Dr. Hans Thulesius	
09:00-09:40	International Keynote Lecture Assoc. Prof. Linda Huibers	
09:40-11:10	Plenary Session - Theme Papers	
11:10-11:40	Blue Dot Coffee Break - For the first time attendees Mötesplats Selma ***E:03*** (Ground Floor)	
11:10-11:40	Coffee Break - For the regular attendees - Ljusgården - (Atrium Ground Floor)	
11:40-13:10	**Selmas Sal** (Ground Floor)	**Mötesplats Selma E:02** (Ground Floor)
	Parallel Session A - Theme Papers: A Quality Appraisal in Digital Health	Parallel Session B - Freestanding Papers: Interesting Methodology Session
13:10-14:10	**Mötesplats Selma *E:03*** (Ground Floor)	
	EGPRN Mentor/Mentee Meeting	
13:10-14:10	Lunch - Ljusgården - (Atrium Ground Floor) & Restaurant	
14:10-15:40	**Selmas Sal** (Ground Floor)	**Mötesplats Selma E:02** (Ground Floor)
	Parallel Session C - Theme Papers: Teleconsultation: What Does This Mean For Your Patient?	Parallel Session D - Web Based Research Course
15:40-16:00	Coffee Break - Ljusgården - (Atrium Ground Floor)	
16:00-17:30	Parallel Session E - One Slide Five Minute Presentations	Parallel Session F - Freestanding Papers: Healthy Life in a Healthy Environment
17:30-17:40	Summary of the day by the International Keynote Speaker Assoc. Prof. Linda Huibers	
17:40	End of the conference day	
17:45-18:45	**Selmas Sal** (Ground Floor)	**Mötesplats Selma *E:03*** (Ground Floor)
	EGPRN Collaborative Study Group Meeting: Örenäs	EGPRN Collaborative Study Group Meeting: Eurodata
18:00	**Practice Visits in Gothenburg**	
	Fully booked. The groups will leave from the conference venue.	

SATURDAY, 10 MAY 2025			
08:30-09:10	**Selmas Sal** (Ground Floor)	**Mötesplats Selma E:02** (Ground Floor)	
	National Keynote Lecture Assoc. Prof. Veronica Milos Nymberg		
09:10-10:40	Paralel Session G - Theme Papers: Care for vulnerable people	Parallel Session H - Freestanding Papers: The GP as a person: implications for practice	
10:40-11:00	Coffee Break - Ljusgården - (Atrium Ground Floor)		
11:00-12:30	**Poster Sessions** Ljusgården & Mötesplats & 1st Floor Space Above Stairs		
	Poster Session 1: Telehealth	Poster Session 2: Chronic Conditions	
	Poster Session 3: Mental Health	Poster Session 4: Prevention and Life Style	
	Poster Session 5: Diagnostic and Prognositic Tools	Poster Session 6: Educational Needs for Practice Improvement	
	Poster Session 7: Patient Centred Care	Poster Session 8: Quality of care	
12:30-13:30	**Mötesplats Selma *E:03*** (Ground Floor)		
	Elevator Pitch - Join us to share your research ideas - or learn about other people's research ideas! If you have a new research idea, and have not sent an abstract to present it at the Gothenburg EGPRN, why not present it to us as an 'elevator pitch'?		
12:30-13:30	Lunch Ljusgården - (Atrium Ground Floor) & Restaurant		
13:30-15:30	**Selmas Sal** (Ground Floor)	**Mötesplats Selma E:02** (Ground Floor)	**Studio 2:04** (2nd Floor)
	Parallel Session I - Theme Papers: Efficacy of telehealth consultations	Parallel Session J - Freestanding Papers: Chronic diseases	Parallel Session K - Freestanding Papers: Patient-centred care
15:30-15:50	Coffee Break - Ljusgården (Atrium Ground Floor)		
15:50-17:20	**Selmas Sal** (Ground Floor)	**Mötesplats Selma E:02** (Ground Floor)	**Studio 2:04** (2nd Floor)
	Parallel Session L - Theme Papers: Organisation of care in a digital era	Parallel Session M - Theme Papers: AI and telemedicine	Parallel Session K - Freestanding Papers: Guiding good practice
17:20-17:30	Summary of the day by the National Keynote Speaker Assoc. Prof. Veronica Milos Nymberg		
17:30-17:50	Chairperson's Report by EGPRN Chair, Dr. Tiny van Merode		
17:50-18:00	Presentation of the Poster-Prize for the best poster presented		
18:00-18:10	Introduction to the next EGPRN meeting		
18:10: 18:15	Closing		
20:00-00:00	**Social Night with Dinner, Dance and Music! - Fully booked.** Venue: River Restaurant On The Pier. Address: Dockepiren, 417 64, Gothenburg		

Programme

Thursday, 8 May 2025

09:00 - 12:00	**EGPRN Collaborative Study Group Meeting: COGITA** Location: Studio 3:03 (3rd Floor)
09:00 - 12:00	**Workshop 1: Writing for Publication – Meet the Editors for Tips and Tricks!** Location: Studio 2:01 (2nd Floor) Registration is required. Click here to learn more.
09:00 - 12:00	**Workshop 2: Implementation of Telehealth** Location: Ateljen - Art Studio 3:06 (3rd Floor) Registration is required. Click here to learn more.
09:00 - 12:00	**Workshop 3: Involving Primary Care Patients in Clinical Research: The Pivotal Role of Practice-Based Research Networks (PBRNs)** Location: Studio 2:04 (2nd Floor) Registration is required. Click here to learn more.
09:30 - 13:00	**EGPRN Executive Board Meeting** Location: Mötesplats Selma E:02 (Ground Floor) Only for Members of the Executive Board
12:00 - 14:00	**Lunch** Price is not included in the conference fee. You may purchase lunch at restaurants close to the venue.
13:00 - 17:00	**Workshop 4: Creating Digital Health Interventions: A Hands-On Workshop with the Computerized Intervention Authoring System (CIAS)** Location: Ateljen - Art Studio 3:06 (3rd Floor) Registration is required. Click here to learn more.
14:00 - 17:00	**EGPRN Council Meeting** Location: Mötesplats Selma E:02 (Ground Floor) Only for EGPRN Executive Board and EGPRN Council members.

17:00 - 18:00	**EGPRN Committee Meetings and Working Groups** • Research Strategy Committee - Mötesplats Selma E:02 (Ground Floor) • Educational Committee - Studio 2:04 (2nd Floor) • PR & Communication Committee - Studio 2:01 (2nd Floor)
19:30 - 21:00	**Welcome Reception and Opening Cocktail** Börshuset - Stock Exchange Building Address: Östra Hamngatan 21, 411 10 Gothenborg Registration closed on 23 April. Entry to the building will be granted based on a pre-registered list. Only those whose names are on the list will be admitted, and the doors will close at 20:00, no further admissions will be possible after that time.

Friday, 9 May 2025

08:00 - 08:30 **Registration**
Location: Ljusgården (Atrium Ground Floor)

08:30 - 08:45 **Opening of the Meeting by EGPRN Chairperson**
Location: Selmas Sal (Ground Floor)
- Lieve Peremans (Speaker)

08:45 - 09:00 **Welcome by Local Host**
Location: Selmas Sal (Ground Floor)
- Hans Thulesius (Speaker)

09:00 - 09:40 **International Keynote Lecture**
Location: Selmas Sal (Ground Floor)
- Lieve Peremans (Chair)
- Telehealth: Access to Acute Primary Care - Linda Huibers

09:40 - 11:10 **Plenary Session - Theme Papers**
Location: Selmas Sal (Ground Floor)
- Lieve Peremans (Chair)
- Artificial Intelligence in Primary Care: GPT-4 vs. Specialist Doctors in Complex Case Assessments - Carl Wikberg
- The obscured face in video consultations: a qualitative analysis of patient experiences - Elisabeth Assing Hvidt

11:10 - 11:40 **Blue Dot Coffee Break**
Location: Mötesplats Selma E:03 (Ground Floor)

For the first time attendees.

11:10 - 11:40 **Coffee Break**
Location: Ljusgården (Atrium Ground Floor)

For the regular attendees.

11:40 - 13:10 **Parallel Session A - Theme Papers: A Quality appraisal in digital health**
Location: Selmas Sal (Ground Floor)
- Ana Clavería (Chair)
- Assessment of Centor criteria for a sore throat - telemedicine versus in-person physical examinations - Patrycja Woldan-Gradalska
- Evaluating a multispecialty e-consultation service between general practitioners and hospital specialists in the Netherlands. - Ken Peeters
- Value appraisal of digital triage platforms - Ingrid Hendriksen

11:40 - 13:10 **Parallel Session B - Freestanding Papers: Interesting Methodology Session**
Location: Mötesplats Selma E:02 (Ground Floor)
- Paul Van Royen (Chair)
- Availability and Frequency of video and telephone consultations in Primary Care across 20 countries: A Cross-sectional study - Ana Luisa Neves

- Feasibility, Safety, and Effectiveness of Prednisolone and Vitamin B1, B6, and B12 in Patients with Post-COVID-19 Syndrome (PreVitaCOV): A Multicenter Randomized Controlled Trial in Primary Care - Andreas Klug
- Inter-contact intervals for temporal discrimination of acute from chronic care in general practice - Johannes Hauswaldt

13:10 - 14:10 **EGPRN Mentor/Mentee Meeting**
Location: Mötesplats Selma E:03 (Ground Floor)

13:10 - 14:10 **Lunch**
Location: Ljusgården - Atrium & Restaurant (Ground Floor)

14:10 - 15:40 **Parallel Session C - Theme Papers: Teleconsultation: what does this mean for your patient?**
Location: Selmas Sal (Ground Floor)

- Thomas Frese (Chair)
- A virtual community of practice to empower patients with recent ischemic heart disease: A randomized controlled trial. - Ana Isabel Gonzalez- Gonzalez
- Barriers and motivations of patients living in Mayotte to the use of teleconsultation in general medicine - Jessica Dumez
- The effect of medical information being transported via digital tools, on the level of knowledge of general medical issues and breast cancer among breast cancer patients - Joseph Azuri
- Towards Integrated Care for the Elderly: Exploring the Acceptability of Telemonitoring for Hypertension and Type 2 Diabetes Management - Matic Mihevc

14:10 - 15:40 **Parallel Session D - Web Based Research Course**
Location: Mötesplats Selma E:02 (Ground Floor)

- Mehmet Ungan (Chair)
- Shlomo Vinker (Chair)
- Ferdinando Petrazzuoli (Chair)
- Chemsex in primary care: Qualitative study of general practitioners’ perceptions of the phenomenon and views on care pathways in Finistère (France) - Romain Verdeau
- Developing a community approach to hypertension management through community profiling - Jesus Martin Treviño Theriot
- Digital interventions for cognitive and psychological symptoms in Long COVID: A Scoping Review and Healthcare Professionals' Survey - Sandra León-Herrera
- The Artificial Intelligence Simulated-Patient Tool for Clinical Training: a Mixed-Method Evaluation - Şeyma Handan Akyön

15:40 - 16:00 **Coffee Break**
Location: Ljusgården (Atrium Ground Floor)

16:00 - 17:30 **Parallel Session E: One Slide Five Minute Presentations**
Location: Selmas Sal (Ground Floor)

- Ferdinando Petrazzuoli (Chair)
- Mehmet Ungan (Chair)
- Shlomo Vinker (Chair)
- Evaluation and Continuous Quality Improvement in Prescribing Proton Pump Inhibitors - Bárbara Duarte Ferreira
- A Qualitative Interview Study on the Attitudes and Perspectives of 9-13 Year-Old Children and Parents Towards HPV Vaccine: An EGPRN Mentorship Project - Hüsna Sarıca Çevik
- Diagnostic Accuracy and Determinants of GPs’ Gut Feelings regarding Dyspnea and/or Chest Pain complaints in General Practice: A Cross-Border Study - Huseyin Elbi

- Family Medicine in Europe: A Cross-Country Analysis of Differences and Similarities - Limor Adler
- Interprofessional Collaboration in Primary Health Care - Henna Saari
- Optimizing Patient Communication: Streamlining Patient Email Management with Medical Language Models" - Florian O. Stummer
- The HOME Study: Assessing the Impact of Health Dialogues on Aging Populations - Lisa Alvunger
- Use of interpreters in primary care: characterising the population and its association with all-cause mortality and major adverse cardiovascular events. - Priya Sarkar
- Use of tools to detect inappropriate prescribing in older patients – a questionnaire study - Luisa Ocampo Molano

16:00 - 17:30 **Parallel Session F - Freestanding Papers: Healthy life in a healthy environment**
Location: Mötesplats Selma E:02 (Ground Floor)

- Hilde Bastiaens (Chair)
- Climate change and health "through primary care physicians' eyes": a qualitative study in Greece - Ilias Pagkozidis
- Guidelines for sustainable health care research: Department of research for general practice in Copenhagen, Odense, Aarhus, and Aalborg, Denmark - Asthildur Arnadottir
- Investigating the role of general practitioners in prescribing physical activity in Belgium - Sherihane Bensemmane

17:30 - 17:40 **Summary of the day**
Location: Selmas Sal (Ground Floor)

- Linda Huibers (International Keynote Speaker)

17:40 - 17:45 **End of the conference day**

17:45 - 18:45 **EGPRN Collaborative Study Group Meeting: Eurodata**
Location: Mötesplats Selma E:03 (Ground Floor)

17:45 - 18:45 **EGPRN Collaborative Study Group Meeting:Örenas**
Location: Mötesplats Selma E:02 (Ground Floor)

18:00 - 20:00 **Practice Visits in Gothenburg**

Fully booked. The groups will leave from the conference venue. Click here to learn more.

Saturday, 10 May 2025

08:30 - 09:10 **National Keynote Lecture**
Location: Selmas Sal (Ground Floor)

More info about the national keynote speaker here

- AI in Swedish Primary Care - A GP's Ultimate Bucket List - Veronica Milos Nymberg

09:10 - 10:40 **Parallel Session G - Theme Papers: Care for vulnerable people**
Location: Selmas Sal (Ground Floor)
- Hilde Bastiaens (Chair)
- Determinants of the use of teleconsultation, on the side of the doctor and depressed patients in their follow-up in France - Alain Mercier
- Exploring patient-centered design solutions of a telehealth app for HIV – A qualitative study - Angelina Müller
- Preliminary Evaluation of Telemedicine in Elderly Care Facilities: Reducing Travel Expenses Through On-Site Diagnostic Tools and Remote Collaboration" - Lorenzo Rizzotto

09:10 - 10:40 **Parallel Session H - Freestanding Papers: The GP as a person: implications for practice**
Location: Mötesplats Selma E:02 (Ground Floor)
- Radost Assenova (Chair)
- GPs' and Patients' Perceptions regarding Suitability of Remote Consultations: Matched data from Norwegian General Practice - Børge Lønnebakke Norberg
- Letters to General Practice: Exploring female GPs' experiences and expectations of a sustainable career in general practice - Ivana Keenan
- What is the prevalence of chronic diseases in the assigned population of a GP, according to the GP personality? Preliminary results from the GP personality collaborative study - Ileana Gefaell

10:40 - 11:00 **Coffee Break**
Location: Ljusgården (Atrium Ground Floor)

11:00 - 12:30 **Poster Session 1: Telehealth**
Location: Ljusgården & Mötesplats Selma (Ground Floor) & 1st Floor
- Limor Adler (Chair)
- "Healthcare Access and Digitization: A Comparative Analysis of Primary Care, 1177 Direct, and Private Digital Platforms" - Sandra Stern
- HealthData@MAD-R&I: Enhancing Primary Care with Secondary Data Use for Research - Montserrat León-García
- Integrating Telehealth in Primary Care: an Albanian Perspective - Albana Greca (Sejdini)
- Leveraging Telehealth for Improved Healthcare Access in Remote Tajikistan: Feasibility and Impact in Sughd Oblast Pilot Districts - Farrukh Egamov
- Telehealth and Mobile Diabetes Nursing in Rural Sweden - Monika Lund
- Telehealth in Primary Care: Demographic and Health Characteristics of Users and Non-Users in Sweden (n=73,486) - Pär Eriksson

11:00 - 12:30 **Poster Session 2: Chronic Conditions**
Location: Ljusgården & Mötesplats Selma (Ground Floor) & 1st Floor
- Negar Pourbordbari (Chair)
- Effectiveness of Bariatric Surgery Versus Lifestyle Weight Loss Interventions in Adolescents: A Long-Term Study of Weight Management and Nutrient Levels - Ilan Yehoshua
- Feasibility of a noninvasive heart failure telemonitoring system: A mixed methods study - Teemu Ekola

- Mapping post-acute COVID syndrome in Europe: Data and Guidelines in primary health care across 30 Countries - Raquel Gomez Bravo
- Monitoring in Chronic Diseases (ChroMo): a scoping review of evaluation methods - Veronika Van Der Wardt
- Multiple chronic conditions and cognitive performance: a 5-year longitudinal study of patients aged 55-75 years at baseline - Javier Rubio Serrano
- Self-efficacy in hypertension management using e-Health technology: a randomized controlled trial in primary care - Rasmus Hermansson-Borrebaeck

11:00 - 12:30 **Poster Session 3: Mental Health**

Location: Ljusgården & Mötesplats Selma (Ground Floor) & 1st Floor

- Ana Clavería (Chair)
- Assessment of Neurocognitive Disorder in Primary care - Evaluating the usefulness of a digital cognitive test in clinical practice. - Anna Segernäs
- Effect of “Diaphragmatic Breathing Exercises” on Functional Constipation, Anxiety and Depression - Çigdem Ölke
- Evaluating Health Related Quality of Life and Health Anxiety in Patients Attending a Family Medicine Outpatient Clinic - Didem Kafadar
- How alcohol-dependent patients feel about the effect of a period of sick leave on their alcohol consumption - Maxime Pautrat
- Screening and Counselling For Intimate Partner Violence in Primary Care: A Systematic Review - Emeline Pasdeloup
- The influence of organizational models on the implementation of internet-based cognitive behavior therapy in primary care: A mixed methods study using the RE-AIM framework - Elisabet Gervind

11:00 - 12:30 **Poster Session 4: Prevention and Life Style**

Location: Ljusgården & Mötesplats Selma (Ground Floor) & 1st Floor

- Hilde Bastiaens (Chair)
- Analysis of Child Maltreatment in Overweight / Obese Children - Yuliia Tsyunchyk
- Challenges of managing alcohol use related driving license legislation when using B-Phosphatidylethanol in primary care - Åsa Steensland
- Evaluation of the counseling concept “Positive Health” in primary care. An explorative investigation of video-documented conversations using the Rating Inventory of solution-oriented Interventions (RLI). - Natalie Seuken
- Preliminary results from an interview study with parents about childhood vaccination - Staffan Svensson
- Sleeping Safe and Sound - Kristien Coteur
- What factors influence General Practitioners’ participation in the colorectal cancer screening programme, and what can be done to increase uptake? Protocol for a mixed methods study. - Jelena Danilenko

11:00 - 12:30 **Poster Session 5: Diagnostic and Prognositic Tools**

Location: Ljusgården & Mötesplats Selma (Ground Floor) & 1st Floor

- Tuomas Koskela (Chair)
- Alarming signs in patients with higher FRAX score - Zoltán Lakó-Futó
- Improving Arrhythmia Diagnostics in Primary Care: The Potential Role of Artificial Intelligence in ECG Interpretation - Hans Thulesius
- Knowledge and Approaches of Family Physicians on Chronic Kidney Disease Screening, Diagnosis and Follow-up According to the 2024 Kidney Disease: Improving Global Outcomes (KDIGO) Guidelines - Pınar Kocabas
- Newly developed anaemia predicts incident cancer and death within 18 months: Findings from 1.1 million patients in the Stockholm Early Detection of Cancer Study (STEADY-CAN) cohort - Elinor Nemlander
- Stress as a risk factor for stroke – which levels are dangerous? Observations from the Population Study of Women in Gothenburg - Linda Sandin
- Validation of lung ultrasound, performed by family physicians, as an initial imaging test to

diagnose pneumonia in COVID-19 patients. - Mª Cristina Gadea-Ruiz

11:00 - 12:30 **Poster Session 6: Educational Needs for Practice Improvement**

Location: Ljusgården & Mötesplats Selma (Ground Floor) & 1st Floor

- Heather L Rogers (Chair)
- Career Choices of Medical Graduates who Completed a Novel General Practice-Oriented Pre-Graduate Curriculum in Switzerland - Océane Corpataux
- Digital support tool for deprescribing psychotropics in general practice - applicability and feasibility from general practitioners' perspectives - Kiran Chapidi
- Primary Care Nurses' Experiences and Training Needs in Text-Based Care Assessments in Telehealth - Elnura Halmambetova
- Slovenian medical students' perceptions of working in a rural environment - Marija Petek Šter
- The importance of a general practice placement in postgraduate training - a qualitative study in Finland - Matti Nissilä
- Using Virtual Clinical Placements to overcome challenges and enhance medical education in Ukraine: An Objective Evaluation of Learning - Helena Manzulych

11:00 - 12:30 **Poster Session 7: Patient centred care**

Location: Ljusgården & Mötesplats Selma (Ground Floor) & 1st Floor

- Gökçe İşcan (Chair)
- Bridging the Digital Divide in Primary Care: Exploring the Impact of Digital Exclusion on Patients and Providers - Mi Segerström
- Factors influencing medication adherence in General Practitioners' practice: results from qualitative study in Latvia - Vija Siliņa
- How can we improve the experience of Breaking Bad News? A Systematic review. - Alice Laurandeau
- Internet-delivered psychological treatment program for adults with frequent migraines: a randomized controlled pilot study with a mixed methods design. - Marie Peersson
- Optimizing primary care for post-COVID-19 patients: leveraging clustering techniques for personalized diagnosis and treatment - Fátima Méndez-López
- Patients' perspectives on facilitators to deprescribing medications in older patients in Sweden – a questionnaire study - Naldy Parodi López

11:00 - 12:30 **Poster Session 8: Quality of care**

Location: Ljusgården & Mötesplats Selma (Ground Floor) & 1st Floor

- Sara Ares Blanco (Chair)
- Choosing Wisely: low value care as described by Swedish GPs - Hálfdán Pétursson
- Do nurse practitioners-lead clinics increase primary care access? A longitudinal study in Québec, Canada - Arnaud Duhoux
- How do children of doctors experience medical treatment by their parents? Results of a qualitative study - Achim Mortsiefer
- Improving continuity of care through digital solutions: a study among general practitioners in Finland - Ulla Mikkonen
- Models of communication between medical specialists and general practitioners - Alberte Rodskjer
- Validity of self-assessment questionnaire for the quality control of primary health care during the war in Ukraine - Pavlo Kolesnyk

12:30 - 13:30 **Elevator Pitch**

Location: Mötesplats Selma E:03 (Ground Floor)

Join us to share your research ideas - or learn about other people's research ideas!
If you have a new research idea, and have not sent an abstract to present it at the EGPRN Gothenburg Meeting, why not present it to us as an 'elevator pitch'?
'Elevator pitches' are usually used to 'sell' a business idea, but here you will have 2 minutes to tell us

about your ideas for a new research study. Click here for more information.

12:30 - 13:30	**Lunch** Location: Ljusgården - Atrium & Restaurant (Ground Floor)
13:30 - 15:30	**Parallel Session I - Theme Papers: Efficacy of telehealth consultations** Location: Selmas Sal (Ground Floor) • Jean Yves Le Reste (Chair) • After-hours telemedicine Pediatric Medical Consultation Center – does it meet medical needs? - Shlomo Vinker • SWOT analysis of “CheckMe” - Digital Web-Based Tool to Simplify Evidence-Based Prevention Planning in Ukraine During War - Nataliia Ponzel • Telemedicine for Home Healthcare: Effectiveness, Participation, and Sustainability - Gokce Iscan
13:30 - 15:30	**Parallel Session J - Freestanding Papers: Chronic diseases** Location: Mötesplats Selma E:02 (Ground Floor) • Jako Burgers (Chair) • De-implementation of low-value care practices in primary care: Results from the DE-imFAR study on abandonment of low-value pharmacological prescription for cardiovascular disease (CVD) primary prevention - Heather L Rogers • Do type 2 diabetes mellitus patients included in randomised clinical trials differ from general-practice patients? A cross-sectional comparative study. - Clarisse Dibao • Participant selection for lung cancer screening by risk modeling using primary care electronic health records (EHRs): The Catalan scenario. - Mercè Marzo-Castillejo • Prescriptions of long-term beta blockers after myocardial infarction in European primary care settings (PRACTITIONER study) – a case vignette study with general practitioners - Martina Zangger
13:30 - 15:30	**Parallel Session K - Freestanding Papers: Patient-centred care** Location: Studio 2:04 (2nd Floor) • Torunn Bjerve Eide (Chair) • 2. ADAPTing psychological treatment for functional abdominal pain in Swedish specialized pediatric care settings - Emma Ramsay Milford • Effects of the SOFIA programme on Needs-based Quality of Life and Self-perceived Inequity in Patients with Severe Mental Illness: Results from a randomised pilot study. - Anne Møller • Gender bias in assessing chest pain among general medical trainees and general practitioners in western of Brittany, France - Marie Barais • Speculum self-insertion: an alternative method for gynaecological examination? - Marie-Morgane Veto
15:30 - 15:50	**Coffee Break** Location: Ljusgården (Atrium Ground Floor)
15:50 - 17:20	**Parallel Session L - Theme Papers: Organisation of care in a digital era** Location: Selmas Sal (Ground Floor) • Pavlo Kolesnyk (Chair) • Experiences and results of operating telemedicine-based mobile healthcare services in rural Hungarian areas - Ábel Perjés • From Stethoscopes to Screens: Telemedicine in the Daily Lives of Hungarian GPs - Mária Kucsera • Primary Care in the Age of Telemedicine: Diagnoses and Physician Time Across Visit

Modalities - Yochai Schonmann

15:50 - 17:20	**Parallel Session M - Theme Papers: AI and telemedicine** Location: Mötesplats Selma E:02 (Ground Floor) • Tuomas Koskela (Chair) • AI and Machine Learning-driven characterization models for post-COVID-19 condition: Enhancing personalized care in primary care settings - David Lerma Irureta • AI and telemedicine in general practice in 2025 - Alberto Parada • AI in Healthcare Cybersecurity: Navigating the Dual-Use Dilemma - Vytis Radvila
15:50 - 17:20	**Parallel Session N - Freestanding Papers: Guiding good practice** Location: Studio 2:04 (2nd Floor) • Gökçe İşcan (Chair) • Guideline Adherence in Community-Acquired Pneumonia: Do Doctors Follow the Rules and Does It Matter? - Daniel Sion • Predicting Primary Care Visit Length in Israel: A Machine Learning Approach to Optimize Clinic Operations - Michael Hauzer • Socio-Demographic Factors of Childhood Vaccine Hesitancy in Albania - Ledia Qatipi
17:20 - 17:30	**Summary of the day** Location: Selmas Sal (Ground Floor) • Veronica Milos Nymberg (National Keynote Speaker)
17:30 - 17:50	**Chairperson's Report by EGPRN Chair** Location: Selmas Sal (Ground Floor) • Tiny Van Merode (Chair)
17:50 - 18:00	**Presentation of the Poster Prize for the best poster presented** Location: Selmas Sal (Ground Floor) • Ayse Caylan (Speaker)
18:00 - 18:10	**Introduction to the next EGPRN meeting** Location: Selmas Sal (Ground Floor) • Radost Assenova (Speaker)
18:10 - 18:15	**Closing**
20:00 - 00:00	**Social Night with Dinner, Dance and Music!** Fully booked. River Restaurant On The Pier Address: Dockepiren, 417 64 Göteborg, Sweden

Sunday, 11 May 2025

09:30 - 12:00 **EGPRN Executive Board Meeting**
Location: Scandic Backadal

Only for members of the Executive Board.

International Keynote Lecture

Telehealth: Access to Acute Primary Care

Assoc. Prof. Linda Huibers

Department of Public Health, Institute of General Medical Practice Aarhus University Denmark.

Access and prioritisation are essential for general practice, ensuring timely provision of care and continuity of care. Patients with unscheduled care needs can access primary care in a variety of ways, both within and across countries. While digital solutions are receiving increasing attention, the evidence supporting their added value remains limited and mixed.
In her keynote lecture, “Telehealth: Access to Acute Primary Care,” Linda Huibers will use a patient case as a starting point to explore how primary care is accessed. A patient can call and receive a telephone consultation, write an email, or plan an appointment online. Newer telehealth solutions include video contacts, digital self-triage, and chatbots. These approaches will be discussed with reference to relevant evidence and practical examples. Key challenges, including health inequity and the digital divide, will be addressed to highlight the broader implications. The lecture aims is to provide a concise overview and stimulate critical reflection among the audience.

About the speaker

Linda Huibers is an associate professor at Aarhus University in Denmark and co-leader of the Acute Primary Care Research group. Linda has contributed to numerous studies on acute primary care, covering topics such as telephone triage, help-seeking behavior, acute care organization, video consultations, point-of-care testing, and antibiotic prescribing. A strong advocate for cross-national collaboration, she played a key role in founding EurOOHnet, a European research network dedicated to out-of-hours care.

Local Keynote Lecture

AI in Swedish primary care - a GP’s Ultimate Bucket list

Assoc. Prof. Veronica Milos Nymberg

Associate Professor, Senior Lecturer, MD
Center for Primary Care Research Faculty of Medicine Department of Clinical Sciences, Malmö Lund University, Sweden

The presentation will cover present challenges in Swedish primary care today, and the potential gains or disadvantages of artificial intelligence (AI). While med-tech companies are developing new technologies at a fast pace, the GPs are struggling with a fragmented health care system and complex patients with increasing care needs. Will AI- tools be beneficial in decision-making or create new care demands, and is the evidence keeping pace with the implementation?

About the speaker

Veronica Milos Nymberg is a general practitioner (GP) at Laröd primary health care center in Helsingborg, Southern Sweden, and an Associate Professor at Lund University. She meets patients on a regular basis, and her research is covering e-health, cardiovascular prevention and mental health. She received the award “Paper of the year 2019” from the Scandinavian Journal of Primary Health Care for the article ‘Having to learn this so late in our lives...' Swedish elderly patients' beliefs, experiences, attitudes and expectations of e-health in primary health care’. Her research work in the field of e-health is exploring aspects of telemedicine (patients’ and medical staffs’ attitudes and intentions, inequity, resourse utilization), artificial intelligence and co-design of digital tools involving patients. She is a member of the network Swedish Collaboration on Digital Care Research.

Pre-conference Workshop 1

Writing for Publication – Tips and Tricks from the Editors!

Thursday, 8th May, 09:00 - 12:00

- **Jako Burgers**, Dept. of Family Medicine, Maastricht University, Maastricht, The Netherlands; jako.burgers@maastrichtuniversity.nl
  Jako Burgers is the Editor-in-Chief of the European Journal of General Practice (EJGP), the official scientific journal of Wonca Europe.
- **Anna Nager**, Karolinska Institutet Division of Family Medicine and Primary Care
  Anna Nager is the Editor-in-Chief of the Scandinavian Journal of Primary Health Care

Publishing research in peer-reviewed journals requires strong writing skills, a strategic approach, and an understanding of the editorial and peer-review process. This workshop, led by experienced journal editors, will provide practical tips on manuscript preparation, structuring research papers, navigating peer review, and avoiding common pitfalls. Participants will gain insights into what journal editors look for in high-quality submissions, helping them enhance their chances of publication.

Pre-conference Workshop 2

Implementation of Telehealth

Thursday, 8th May, 09:00 - 12:00

- **Marcus P. Björk**, R&D manager, Västra Götaland Region and Assistant Professor, Gothenburg University
- **Elisabet Gervind**, eHealth Strategist, Västra Götaland Region
- **Anna Wingård Holst**, Assistant Professor, Gothenburg University

Telehealth is reshaping primary care, offering new ways to deliver healthcare efficiently and remotely. This workshop will provide insights into successful implementation strategies, addressing technical, organizational, and policy challenges. Local experts will share real-world case studies on how to integrate telehealth solutions into clinical workflows.

Special Session: "Teledermatology – From Innovation to Gold Standard"
Led by: Anna Wingård Holst, Assistant Professor, Gothenburg University
Teledermatology has evolved from an experimental innovation to an established clinical practice. This session will explore the journey of teledermatology, covering implementation strategies, patient benefits, and lessons learned in making it a gold standard in primary care.

Pre-conference Workshop 3

Involving Primary Care Patients in Clinical Research: The Pivotal Role of Practice-Based Research Networks (PBRNs)

Thursday, 8th May, 09:00 - 12:00

- **Peder A. Halvorsen**, UiT – The Arctic University of Norway
- **Guro Haugen Fossum**, University of Oslo
- **Tuomas Koskela**, Tampere University, Finland
- **Elina Tolvanen**, The Wellbeing Services County of Pirkanmaa and Tampere University, Finland
- RaPHael Network Representative (TBA)

Practice-Based Research Networks (PBRNs) have been successfully established across Europe, strengthening primary care research by providing a structured way to engage general practitioners and their patients. These networks foster collaboration between clinicians and academic institutions, making research more accessible and impactful.

This workshop will showcase diverse PBRN models, from large-scale initiatives to small-scale, low-budget networks, and discuss their benefits, challenges, and sustainability. Presentations include:

- Practice-Based Research Networks – A Brief Overview (Peder A. Halvorsen, Norway)
- Using Information Technology to Facilitate Research in a PBRN – The Story of PraksisNett (Guro Haugen Fossum & Peder A. Halvorsen, Norway)
- A Small-Scale Low-Budget PBRN – The Finnish Experience (Tuomas Koskela, Finland)
- RaPHael Network Presentation (Title TBA)

Participants will engage in discussions on:

- How PBRNs can enable research in primary care
- Steps to establish a PBRN in different settings
- Overcoming barriers to participation in clinical research
- The goal is to inspire primary care professionals to engage in PBRN-based research and provide practical insights into setting up and sustaining a network in their own environment.

Pre-conference Workshop 4

Creating Digital Health Interventions: A Hands-On Workshop with the Computerized Intervention Authoring System (CIAS)

Thursday, 8th May, 13:00 - 17:00

- **Frank Muller,** Researcher in Digital Health, Germany
- **Eva Maria Noack,** Researcher, University Medical Center Göttingen

The Computerized Intervention Authoring System (CIAS) is an open-source, non-commercial platform designed to easily create and manage digital behavioral health interventions. Without programming expertise, healthcare professionals and researchers can design, customize, and deploy digital health interventions. These may include interactive content, randomization of participants, animated narrators that speak aloud in over 40 languages, instant translation and sending tailored SMS to participants.

CIAS was originally developed at Michigan State University. The new CIAS-EU version was recently deployed to comply with the European Union’s security and privacy regulations.

This hands-on workshop will guide participants through the fundamentals of using CIAS. Workshop participants can instantly begin to develop their own interventions ready for use in medical research or other healthcare settings. **Participants should therefore bring their own laptop.**

This interactive session is ideal for clinicians, researchers, and public health professionals seeking innovative ways to integrate technology into healthcare interventions.

Theme Paper / Published

Artificial Intelligence in Primary Care: GPT-4 vs. Specialist Doctors in Complex Case Assessments

Rasmus Arvidsson, Ronny Gunnarsson, Artin Entezarjou, David Sundemo, Carl Wikberg

School of Public Health and Community Medicine, University of Gothenburg, 41471 Gothenburg, Sweden. E-mail: carl.wikberg@allmed.gu.se

Keywords: Artificial Intelligence, Primary Care, General Practitioner, Examination, Benchmark

Background:
Recent advancements in artificial intelligence (AI) have shown significant promise in healthcare. OpenAI's ChatGPT, specifically version GPT-4, has demonstrated competence in medical multiple-choice assessments. However, its performance on complex, free-text cases, particularly in primary care, remains largely unexplored. The Swedish family medicine specialist examination provides a unique opportunity to compare GPT-4's responses against those of real doctors in managing multifaceted clinical scenarios.

Research questions:
How does GPT-4's performance compare to that of randomly selected and top-tier doctors in scoring comprehensive free-text responses to primary care cases?

What are the specific strengths and weaknesses of GPT-4 in diagnosing, recommending treatments, and addressing psychosocial complexities?

Can GPT-4's responses inform the future development of AI in clinical decision support?

Method:
This observational comparative study evaluated 48 cases from the Swedish family medicine specialist examination (2017–2022). The cases, consisting of long-form clinical scenarios, were assessed by three groups:

Group A: Randomly selected doctor responses
Group B: Top-tier doctor responses
Group C: GPT-4-generated responses.

Each response was scored using a structured evaluation guide adapted from official scoring criteria. Blinded reviewers assessed the responses, awarding scores on a 10-point scale. Statistical analyses included paired t-tests to compare mean scores and interclass correlation coefficients to evaluate scoring reliability.

Results:
The mean scores for Groups A, B, and C were 6.0, 7.2, and 4.5, respectively. Random doctor responses scored 1.6 points higher than GPT-4 ($p<0.001$), and top-tier doctor responses outperformed GPT-4 by 2.7 points ($p<0.001$). GPT-4's responses were notably less comprehensive in differential diagnosis, treatment recommendations, and addressing social factors. However, GPT-4 demonstrated potential in structuring responses and providing general medical knowledge.

Conclusions:
GPT-4 underperformed compared to both randomly selected and top-tier doctors in managing complex primary care cases. While its outputs reveal significant limitations in medical accuracy and contextual understanding, GPT-4 shows promise as a supplementary tool for clinical decision support.

Points for discussion:
Implications for clinical practice: The study highlights the current limitations of GPT-4 in primary care, emphasizing the need for human oversight in AI-driven medical decision-making.

Potential for improvement: With targeted training and prompt engineering, GPT-4's performance may improve in areas such as differential diagnosis and psychosocial assessment.

Future research directions: Further studies should explore the integration of AI models like GPT-4 into clinical workflows, focusing on their role in enhancing efficiency while ensuring patient safety.

Presentation on 09/05/2025 09:40 in "Plenary Session - Theme Papers" by Carl Wikberg.

Theme Paper / Finished study

The obscured face in video consultations: a qualitative analysis of patient experiences

Elisabeth Assing Hvidt, Frida Greek Kofod, Johannes Van Den Heuvel, Michael Scheffmann-Petersen

Department of Public Health, Research Unit of General Practice, Odense, Denmark. E-mail: ehvidt@health.sdu.dk

Keywords: Video consultations, general practice, phenomenology, Levinas, Buber, ethical telecare

Background:
Video consultations represent a relatively new way of delivering face-to-face consultation in the context of general practice. In Denmark, video consultations have since 2025 become a mandatory service in general practice. We lack knowledge about how video-mediated consultations affect the possibilities for communication about vulnerable issues.

Research questions:
The aim of the present analysis is to examine how video consultations influence patients' experiences of their ability to communicate their emotions, needs, and vulnerabilities, as well as the GPs' ability to respond to these.

Method:
The empirical base consists of 43 semi-structured interviews with patients (23 women and 20 men), aged between 17 and 81 years old, who have used video consultation as part of their treatment for various health issues in general practice. Emmanuel Levinas' theory of "the face" was used as an analytical and interpretative tool.

Results:
The analysis showed that in video consultations, patients experience a digital obscuring of the face, i.e., of their emotions, needs and vulnerabilities. This complicates the GP's ability to perceive their vulnerability, making it challenging to recognize the patients' needs. Moreover, this obscuration hinders the patients' capacity to connect to their own vulnerabilities, which can lead to a diminished awareness of their own suffering. On the other hand, this mechanism might help those patients who wish to obtain shielding from their face and from difficult emotions.

Conclusions:
We conclude that significant relational and ethical dimensions of care within the doctor-patient relationship in general practice are challenged in video consultations. We propose integrating Buber's dialogical principles with the present Levinasian analysis as it may offer a promising approach to enhancing relational dynamics in video consultations.

Points for discussion:
How do we enhance relational dynamics in video consultations?

Are video consultations suitable for addressing and discussing vulnerable issues?

What characterises the communicative situations in which vulnerabilities have been successfully addressed in video consultations?

Presentation on 09/05/2025 09:40 in "Plenary Session - Theme Papers" by Elisabeth Assing Hvidt.

Theme Paper / Published

Assessment of Centor criteria for a sore throat - telemedicine versus in-person physical examinations

Patrycja Woldan-Gradalska, Wojciech Gradalski, Sikandar Moradi, Martin Franzelius, Sara Folkerman, Eva-Maria Fuchs, Frida Liljegren, Therese Karlsson, Hálfdán Pétursson, Anette Larsson, Ingmarie Skoglund, Ronny Gunnarsson, Pär-Daniel Sundvall

Avdelningen för samhällsmedicin och folkhälsa, Institutionen för medicin, Sahlgrenska akademin, Göteborgs universitet, Gothenburg, Sweden. E-mail: patrycja.woldan-gradalska@gu.se

Keywords: Centor score, Sore throat, Telemedicine, Pharyngotonsillitis, Primary health care

Background:
It is uncertain whether the Centor criteria can be reliably assessed during telemedicine encounters with patients seeking care for a sore throat.

Research questions:
Primary objective: To compare the inter-rater reliability of Centor score assessments via telemedicine versus in-person examinations.

Method:
Study Design: Cross-sectional blinded study.
Analysis: The interrater agreement between in-person physical examinations and telemedicine assessments were assessed using Cohen's kappa coefficient with a 95% confidence interval.
Setting: Six primary healthcare centres and three out-of-hours primary care centres in Region Västra Götaland, Sweden.
Participant selection: Patients ≥ 3 years seeking with a sore throat.
Intervention: Each patient received independent assessments from two physicians: telemedicine followed by face-to-face examination. Both physicians were blinded to each other's findings.
Outcome Measures: In-person physical examinations and telemedicine assessments of the four Centor criteria as well as for the total Centor score.

Results:
189 patients were included during 2020 to 2023. The participants mean age was 31 (SD 18, range 4-89), 114 were female and 148 adults. Agreement was low with kappa between 0.47 (95 % CI 0.38 - 0.56) to 0.58 (95 % CI 0.43-0.72) when comparing assessments of lymph nodes, tonsils and the total Centor score. Kappa was potentially acceptable for history of fever and absence of cough. Even if the participants were divided by children/adults or whether the conditions for telemedicine assessment of the Centor criteria were adequate or not, the level of agreement of the total Centor score did not change.

Conclusions:
The low agreement between in-person physical examination and telemedicine assessments of lymph nodes, tonsils, and the total Centor score shows that telemedicine do not have the same accuracy as in-person examinations.

Points for discussion:
Reliability of telemedicine in clinical assessments: implications for clinical decision-making in primary health care and antibiotic stewardship.

Presentation on 09/05/2025 11:40 in "Parallel Session A - Theme Papers: A Quality appraisal in digital health" by Patrycja Woldan-Gradalska.

Theme Paper / Almost finished study

Evaluating a multispecialty e-consultation service between general practitioners and hospital specialists in the Netherlands.

Ken Peeters, Dennis Muris, Jochen Cals

Maastricht University, Care and Public Health Research Institute, Department of Family Medicine, Maastricht, Netherlands. E-mail: k.peeters@maastrichtuniversity.nl

Keywords: e-consultation, electronic consultation

Background:
E-consultations are asynchronous communication between GPs and specialists, potentially reducing hospital referrals and helping manage healthcare costs. While well-studied in North America, research in Europe is limited. Given universal healthcare systems and the GP's gatekeeper role in many European countries, understanding e-consultation in this context is crucial for optimizing its integration and effectiveness.

Research questions:
What is the effect of using e-consultations between general practitioners and specialists on hospital referrals?

Method:
We analyzed e-consultations and referrals by GPs in a southern Netherlands region to the 10 largest hospital departments (2016–2023). Using interrupted time series analysis, we compared referral rates before and after e-consultation introduction, with national data as a reference. Patients with e-consultations were tracked in hospital EHRs for 6 months to determine if these consultations led to hospital referrals.

Results:
During the EGPRN meeting, we can present data from the ITS analysis for the 10 largest hospital departments between 2016 and 2023.* We will show the change in referral rate after introduction of e-consultation, for both the regional and national group.

EHR data shows that 30.2% of e-consultations result in a hospital referral. Non-surgical departments show a higher number of e-consultations, and a smaller proportion of these e-consultations leading to a referral.

*: we are waiting on national data. We expect to receive this soon, so we will be able to present full results and conclusion(s) at the EGPRN meeting.

Conclusions:
Results suggest the potential of e-consultations to reduce healthcare pressure. We used long-term follow-up data from a large number of healthcare consultations. The question remains whether the number of e-consultations is sufficient to impact hospital referral rates and whether this is a regional or national trend. Further research is needed to determine what proportion of e-consultations leads to avoided or additional referrals, and to explore differences in the suitability of e-consultations across specialties.

Points for discussion:
Are e-consultations already being used in your country, and do you think the findings from the Netherlands are generalizable to other countries in Europe?

Do you think e-consultations are suitable for all specialties and types of questions, or are there specific specialties or types of questions where e-consultations are more appropriate?

Presentation on 09/05/2025 11:40 in "Parallel Session A - Theme Papers: A Quality appraisal in digital health" by Ken Peeters.

Theme Paper / Finished study

Value appraisal of digital triage platforms

Ingrid Hendriksen, Wendela De Lange, Sander Van Doorn, Vincent Van Vugt

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Keywords: digital triage, value appraisal, scoping review

Background:
Digital triage- and consultation preparation (DTCP) is emerging in primary care. Dedicated digital ‘platforms’ are used to assess the urgency of the patients’ complaints, collect information about symptoms and provide advice on next steps. The Dutch government introduced the Digizo.nu program to stimulate the transformation to hybrid care such as DTCP. To validate these platforms a value appraisal of DTCP was undertaken with varied involved stakeholders. The stakeholder group agreed on a measurement plan with ‘acceptance criteria’ for the available evidence.

Research questions:
· What is the available evidence for the value appraisal of six selected DTCP platforms?
· What is needed before these platforms can be scaled up responsibly?

Method:
In a scoping review of available evidence, data was extracted from grey literature provided by the developers of the six selected platforms, supplemented with a systematic literature search. The AACODS checklist was used for critical appraisal of the literature. Results were interpreted and discussed by the stakeholders group of Digizo.nu.

Results:
Ten scientific and thirty-two grey articles were included. The level of evidence was very limited. The accuracy and efficiency of DTCP platforms varied widely. Satisfaction with the use of triage platforms appeared to be high among users. According to the stakeholders, more evidence is needed without slowing down the implementation and use in primary care. Short-cycle research and monitoring of these platforms is necessary before scaling up is possible.

Conclusions:
Despite its widespread implementation, the process of DTCP and the impact on the quality of care has not extensively been evaluated. Stakeholders in Dutch primary care agree that further evidence gathering is crucial before scaling up can take place.

Points for discussion:
Are the results recognizable for other researchers?

Is a value appraisal of digital triage platforms also carried out in other countries?

Presentation on 09/05/2025 11:40 in "Parallel Session A - Theme Papers: A Quality appraisal in digital health" by Ingrid Hendriksen.

Theme Paper / Published

Availability and Frequency of video and telephone consultations in Primary Care across 20 countries: A Cross-sectional study

Ana Luisa Neves, Gabriele Kerr, Benedict Hayhoe, Geva Greenfield, Insight Collaborative Group

Imperial College London, 4200-450 Porto, Portugal. E-mail: ana.luisa.neves@gmail.com

Background:
Understanding the dynamics of telehealth utilization, specifically the use of virtual consultations, is critical in assessing healthcare system resilience and adaptability in times of crisis and beyond. We sought to describe the availability of virtual consultations before and during the COVID-19 pandemic, and identify factors associated with their availability.

Research questions:
(1) To describe the availability and use of telephone, video and human chat consultations before and during the COVID-19 pandemic period, and (2) identify factors associated with their availability.

Method:
Primary Care Physicians (PCPs) from 20 upper-middle and high-income countries completed a cross-sectional online survey between June and September 2020. Responses were collected from PCPs who answered questions on availability of virtual consultation technologies (chat, video, or telephone consultations) before or during the COVID-19 pandemic. The percentage of PCPs with the technology available, and hours of use of each of the technologies, were examined for both time periods. Factors associated with availability were investigated using chi-squared tests.

Results:
A total of 1,370 PCPs were included in this study. Before and during the pandemic, telephone consultations were the most frequently available solution (73.1% and 90.4%, respectively). Statistically significant increases were observed in the 3 technologies during the pandemic. Largest absolute increases in availability were observed for video consultations (+39.5%, $p<0.0001$), followed by telephone consultations (+17.3%, $p<0.0001$) and chat consultations (+8.6%, $p<0.0001$).

Conclusions:
Our study demonstrates the transformative impact of the COVID-19 pandemic on the availability and utilization of virtual consultations among PCPs. Video consultations demonstrated the greatest growth, and their uptake was mainly impacted by training and availability of digital infrastructure. Addressing barriers to access, including disparities in digital literacy and technological resources, will be imperative in ensuring equitable delivery of telehealth services.

Presentation on 09/05/2025 11:40 in "Parallel Session B - Freestanding Papers: Interesting Methodology Session" by Ana Luisa Neves.

Freestanding Paper / Almost finished study

Feasibility, Safety, and Effectiveness of Prednisolone and Vitamin B1, B6, and B12 in Patients with Post-COVID-19 Syndrome (PreVitaCOV): A Multicenter Randomized Controlled Trial in Primary Care

Andreas Klug, Alexander Schwager, Karl Georg Häusler, Cornelia Fießler, Peter Heuschmann, Hanna Kaduszkiewicz, Walter Maetzler, Stefanie Joos, Christian Förster, Oliver Zolk, Ildikó Gágyor

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Keywords: Post-COVID-19-Syndrome, Prednisolone, Vitamin B, primary care, RCT

Background:
Post-COVID-19 syndrome (PC19S) is characterized by persistent symptoms such as fatigue, dyspnea and cognitive impairment. Despite increased prevalence, evidence-based treatment options remain scarce. PreVitaCOV aimed to evaluate the feasibility of a randomized controlled therapeutic trial (RCT) in primary care and the effect of prednisolone and/or vitamin B complex in patients with PC19S.

Research questions:
Is administering vitamin B1/B6/B12, and/or prednisolone for patients with PC19S within a RCT feasible in primary care? Are these interventions effective in reducing symptoms and improving quality of life?

Method:
This double-blind multicenter RCT was conducted at three sites in Germany. Adult patients with documented SARS-CoV-2 infection ≥12 weeks ago and persistent symptoms were randomized into one of four treatment arms: prednisolone, vitamin B complex, both or placebo for 28 days. The study was divided into two phases: (1) a pilot phase assessing the feasibility of recruitment in primary care, defined by a retention rate of ≥85% at day 28 (2) a confirmatory phase evaluating the treatment effect. Primary outcome of the confirmatory phase was change in symptom severity from baseline to day 28 (PROMIS). Secondary outcomes included quality of life (EQ-5D), functional status (PCFS), depression (PHQ-8), fatigue (Chalder Fatigue Scale), physical performance (1-minute sit-to-stand test) and pain intensity (NRS).

Results:
2435 patients were screened, 321 included. 64% of participants were female. In the pilot phase, 100 patients were enrolled. A 97% retention rate was achieved at day 28. Adherence to the treatment protocol was high, with 92% of participants taking at least 26 of 28 doses as required. Further results will be reported at the conference.

Conclusions:
The pilot phase of PreVitaCOV demonstrated the feasibility of the RCT with PC19S patients in primary care. Its success and ongoing analysis of the confirmatory phase address a critical gap in evidence-based treatment options for this challenging condition.

Points for discussion:
What factors contributed to the high retention and adherence rates in this trial, and how can these be replicated in future primary care-based RCTs?

How do the outcomes (e.g., symptom severity, quality of life, functional status) align with the health limitations of patients suffering from PC19S?

What implications does the gender disparity have for understanding the prevalence and impact of PC19S?

Presentation on 09/05/2025 11:40 in "Parallel Session B - Freestanding Papers: Interesting Methodology Session" by Andreas Klug.

Freestanding Paper / Finished study

Inter-contact intervals for temporal discrimination of acute from chronic care in general practice

Johannes Hauswaldt, Eva Hummers, Wolfgang Himmel

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Keywords: Continuity of care, acute care, chronic condition, multimorbidity, frequent attendance

Background:
Continuity of care, a core value in longitudinal primary medical care, encloses episodes of acute care. For operationalization we suggested the inter-contact interval (ICI), that is the number of days between 2 consecutive contacts of a patient to general practice, as a basic measure.

Research questions:
Can ICI from real-world data be related to diagnoses and reason for contact, as an ICI use case application to discriminate acute from chronic care?

Method:
ICI were extracted from electronic medical record data of 155 German practices over 14 years, ICI of less than 8 days we categorized as suggesting “frequent attendance”. For understanding a patient’s temporal ICI changes, we performed ordinal time series analysis of m prior ICI for every ICI, with order m ranging from 1 to 20. ICD-codes, their frequencies, and patient’s chronic and multimorbid condition over time were associated with ICI, using logistic regression modelling (accepted error probability < .05).

Results:
We observed 6,698,739 ICI in 325,080 patients, with 44.7% “frequent attendance”. 1,345 ICD-code entities were found in 1,189,203 patients’ annual quarters.
Highest values of maximum likelihood in 675 significant ICD-code entities were reached from observation of 3 prior ICI (median, inter-quartile range 2 to 4). Diagnoses of the circulatory system, of the respiratory system and of endocrine-metabolic diseases required 2 (IQR 2 to 3) prior ICI to identify acute care, of the musculoskeletal system 3 (3 to 4), signs and symptoms not elsewhere classified 3 (2 to 4), and diseases of the digestive system 7 (1 to 18) prior ICI for acute care identification.

Conclusions:
The inter-contact interval is a simple and universal measure in primary medical care. Combined with operationalization of chronic and multimorbid condition, it allows for identification of patient’s frequent attendance and need for acute care, and contributes to comparable research into patient features.

Points for discussion:
Which features in a patient’s chronic or acute care benefit from using inter-contact intervals for research?

Do you know other ways to operationalize a patient’s frequent attendance or acute care episodes?

Is patient's chronic multimorbidity, that is at least 2 chronic conditions observed in 2 of 4 consecutive annual quarters, a useful measure in primary care research?

Presentation on 09/05/2025 11:40 in "Parallel Session B - Freestanding Papers: Interesting Methodology Session" by Johannes Hauswaldt.

Theme Paper / Published

A virtual community of practice to empower patients with recent ischemic heart disease: A randomized controlled trial.

Ana Isabel Gonzalez- Gonzalez, Helena Vall, Vanesa Ramos-García, Amado Rivero-Santana, Alezandra Torres, Patricia Cifuentes, Débora Koatz, Javier García-García, Valeria Pacheco-Huergo, Pau Rello, Anthea Santos, Alba Campillejo, Sofía Garrido-Elustondo, Marcelo San Martín, Lilisbeth Perestelo-Pérez, Carola Orrego

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Keywords: Virtual Community of Practice, Ischemic Heart Disease, Patient Activation, Self-Management

Background:
Ischemic heart disease (IHD) is a leading cause of morbidity and mortality worldwide. Effective self-management and patient activation are critical for improving health outcomes. Virtual communities of practice (vCoPs) are emerging as promising tools to foster patient empowerment, but their effectiveness in chronic disease management remains under-explored.

Research questions:
1. Can participation in a vCoP improve patient activation levels in individuals with recent IHD?
2. How does the vCoP affect secondary outcomes such as adherence to the Mediterranean diet, physical activity, mental health, and quality of life?
3. What are the mechanisms that drive behavioral change within a vCoP?

Method:
This multicenter, pragmatic randomized controlled trial (RCT) enrolls 282 participants with recent IHD from Madrid, Catalonia, and the Canary Islands. Participants are randomized into two groups: a vCoP intervention group and a control group receiving usual care. The intervention leverages a gamified platform delivering educational content, interactive challenges, and moderated discussions. Outcomes include patient activation (primary) and secondary metrics such as dietary adherence, physical activity, mental health, and quality of life. Data collection spans baseline, 6, 12, and 18 months. Statistical analyses involve multilevel linear regression to assess intervention effects.

Results:
Significant differences in adherence to the Mediterranean diet were observed in favor of the intervention at 6, 12, and 18 months (B = 0.86, 95% CI [0.36, 1.35]). However, no significant changes were found for patient activation or other outcomes.

Conclusions:
The vCoP intervention effectively improved adherence to the Mediterranean diet but did not enhance patient activation or quality of life. High dropout rates introduce uncertainty, highlighting the need for further research to identify mechanisms driving behavioral changes in vCoPs.

Points for discussion:
How can participant engagement in vCoPs be improved to minimize dropout rates and maximize intervention effectiveness?

What factors within the vCoP contributed to improved dietary adherence, and how can these be leveraged to enhance other outcomes like patient activation?

How can vCoPs complement existing healthcare models and be scaled to support chronic disease management in diverse settings?

Presentation on 09/05/2025 14:10 in "Parallel Session C - Theme Papers: Teleconsultation: what does this mean for your patient?" by Ana Isabel Gonzalez- Gonzalez.

Theme Paper / Finished study

Barriers and motivations of patients living in Mayotte to the use of teleconsultation in general medicine

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Keywords: telehealth, general practice, qualitative study, Mayotte

Background:
Mayotte is still very marked by its traditional culture and its magical-religious beliefs. Dealing with many socio-economic difficulties, its health care system facing lots of constraints, especially a lack of general practitioners, the island is also a pioneer in telemedicine.

Research questions:
The objective of this study was to explore the barriers and motivations of patients living in Mayotte using telemedicine in general practice. The secondary objective was to determine if augmented-assisted telemedicine could deal with important concerns and expectations.

Method:
Qualitative study by Grounded Theory based on interviews with people daily living in Mayotte until data saturation. The following method was conducted : Verbatim categorization, coding triangulation, integration, modeling, and data theorizing. This study, based on interviews with patients using qualitative method, does not require approval from the Committee for the Protection of Persons (CPP)

Results:
Among the twenty-five individuals surveyed, there were thirteen men and twelve women. The participants ranged in age from 19 to 73 years, with an average age of 43 years. Only 20 patients were affiliated with social security, and half of them had a chronic illness. Many patients were unaware of this possibility. They feared loss of information due to lack of physical examination, were skeptical due to uneven network coverage or language barrier. They saw some interest in reducing appointment delays, especially for benign diseases or in getting a first opinion. They also saw the possibility of emancipating themselves from geographical barriers and were reassured by the augmented and assisted version proposed in Mayotte.

Conclusions:
The augmented-assisted telemedicine in general medicine offers adapted answers to promote access to care in Mayotte by reassuring the patients about their main fears to the use of telemedicine. Yet this technology will never replace the doctor in person, there is a certain pride in this territory to be a pioneer.

Presentation on 09/05/2025 14:10 in "Parallel Session C - Theme Papers: Teleconsultation: what does this mean for your patient?" by Jessica Dumez.

Freestanding Paper / Finished study

The effect of medical information being transported via digital tools, on the level of knowledge of general medical issues and breast cancer among breast cancer patients

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Background:
Breast cancer is a significant global health issue, requiring effective strategies to enhance patient knowledge for better health outcomes. Telemedicine has emerged as a critical tool in bridging gaps in patient education, offering accessible and personalized digital medical information. While the potential of telemedicine for improving patient knowledge is widely acknowledged, its specific impact on breast cancer patients remains underexplored. This study investigates how telemedicine platforms influence knowledge levels among breast cancer patients, addressing a crucial gap in the literature.

Research questions:
How does access to telemedicine-provided digital medical information impact breast cancer patients' understanding of general medical issues and breast cancer-specific knowledge?

Method:
This quantitative study recruited 307 breast cancer patients from a closed Facebook support group. Participants were randomly divided into intervention (telemedicine-provided digital information) and control (no additional information) groups. The intervention group accessed validated medical resources tailored for breast cancer patients via telemedicine platforms before completing a comprehensive knowledge questionnaire. Data were analyzed using independent t-tests and descriptive statistics to compare knowledge scores between the groups.

Results:
Participants in the intervention group scored significantly higher on the knowledge questionnaire compared to the control group (mean: 75.4 vs. 68.2, $p<0.001$, 95% CI: 5.4-9.0). Satisfaction levels were also higher among intervention participants (mean satisfaction: 4.2 vs. 3.5, $p<0.001$). However, digital literacy emerged as a key factor influencing the assimilation and satisfaction with the provided information.

Conclusions:
Telemedicine platforms significantly improve breast cancer patients' knowledge levels, demonstrating their potential as an effective patient education tool. The findings highlight telemedicine's efficacy in enhancing knowledge acquisition and providing a stress-free and convenient learning environment. By addressing barriers such as digital literacy, healthcare systems can maximize the benefits of telemedicine, improving patient outcomes and reducing disparities in health education.

Points for discussion:
How can telemedicine platforms be optimized to address digital literacy challenges among patients?

What are the best practices for integrating telemedicine into patient education frameworks to improve knowledge retention?

How can telemedicine systems ensure equity in access and usability across diverse patient populations?

Presentation on 09/05/2025 14:10 in "Parallel Session C - Theme Papers: Teleconsultation: what does this mean for your patient?" by Joseph Azuri.

Theme Paper / Published

Towards Integrated Care for the Elderly: Exploring the Acceptability of Telemonitoring for Hypertension and Type 2 Diabetes Management

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Keywords: acceptability, mobile health, telemonitoring, aged, self-management, integrated care

Background:
Telemonitoring has been proposed as an effective method to support integrated care for older people with arterial hypertension (AH) and type 2 diabetes (T2D). However, its acceptability in this population remains underexplored, despite challenges such as cognitive impairment, multiple chronic conditions, and technology hesitancy.

Research questions:
To what extent is telemonitoring acceptable among older people with AH and T2D, and how does it support the components of integrated care? What barriers hinder its scale-up within integrated care models?

Method:
A concurrent triangulation mixed-methods study, including in-depth interviews (n=29) and quantitative acceptability tool (n=55) was conducted among individuals who underwent a 12-month telemonitoring routine. The research was guided by the Theoretical Framework of Acceptability. Qualitative data were analysed using template content analysis (TCA), while quantitative responses were scored on a Likert scale to identify regional variations and overall trends.

Results:
TCA identified seven domains of acceptability, with twenty-one subthemes influencing it positively or negatively. In the quantitative survey, acceptability was high across all seven domains with an overall score of 4.4 out of 5. Urban regions showed higher acceptability than rural regions (4.5 vs. 4.3), with rural participants perceiving initial training and participation effort as significantly more burdensome than their urban counterparts. Patients described several instances where telemonitoring supported self-management, education, treatment, and identification elements of the integrated care package. Participants noted improvements in health literacy, behavioural changes, and patient-provider relationships. However, challenges such as technological barriers, increased family involvement burden, and infrastructure gaps in rural areas limit its scalability.

Conclusions:
For further scale-up, it is important to screen patients for monitoring eligibility, adapt telemonitoring devices to elderly needs, combine telemonitoring with health education, involve family members, and establish follow-up programmes. Addressing these barriers will ensure broader adoption and sustainable integration into integrated care models for older adults with AH and T2D.

Points for discussion:
How can telemonitoring interventions be tailored to address the specific challenges faced by older adults, such as cognitive impairments, physical limitations, and technology hesitancy, to enhance acceptability and usability?

What role do family members and caregivers play in the successful implementation of telemonitoring, and how can their contributions be supported?

What strategies can be implemented to ensure that telemonitoring benefits are sustained over the long term, beyond pilot projects and initial implementation?

Presentation on 09/05/2025 14:10 in "Parallel Session C - Theme Papers: Teleconsultation: what does this mean for your patient?" by Matic Mihevc.

Freestanding Paper / Finished study

Chemsex in primary care: Qualitative study of general practitioners' perceptions of the phenomenon and views on care pathways in Finistère (France)

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Keywords: Chemsex, general practitioner, primary care, PrEP, harm reduction, sexualized drug use

Background:
Chemsex refers to sexual activity under the influence of a psychoactive substance. Treatment in general practice is poorly described.

Research questions:
This study aimed to analyze the perceptions of General Practitioners (GPs) in Brittany regarding chemsex, its inherent problems and GPs' views on the users' care.

Method:
This qualitative study used semi-structured interviews with GPs in Brittany. The interview guide explored risky sexual behavior, the use of drugs during sex, chemsex, and GPs' view of this behavior and its perception in their practice. A manual thematic analysis inspired by phenomenological interpretative analysis was conducted by two independent researchers.

Results:
Nine GPs (four women) were interviewed. Data sufficiency was considered achieved after the ninth interview. GPs often poorly understood chemsex. Pre-exposure prophylaxis prescribers had a more precise perception of chemsex. GPs considered that early awareness of sexuality at school and in primary care could help limit young people's entry into chemsex. The changing relationship to sex, easy access to drugs and new communication modes were factors favoring this behavior.

Conclusions:
A similar study in larger cities would refine these results. A chemsex user interviewed lacked knowledge about the current healthcare offer and the role GPs could play in his care.

Points for discussion:
PrEP as a springboard for understanding chemsex / Relative consent in practice

Known barriers that are difficult to overcome despite a high-quality GP–patient relationship / GPs need to find their place in a complex healthcare system

Unblocking sexuality issues in general medical consultations

Presentation on 09/05/2025 14:10 in "Parallel Session D - Web Based Research Course" by Romain Verdeau.

Web Based Research Course Presentation / Study Proposal / Idea

Developing a community approach to hypertension management through community profiling

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Keywords: Social Prescription. Community Health. Hypertension.

Background:
Social determinants participate either in the development and/or control of hypertension. European Guidelines recommend a patient-centered care approach, because it offers higher satisfaction and adherence to prescriptions. Lifestyle modification plays a significant role in hypertensive treatment. However, pharmacological treatment and its assessment have been considered the most relevant factor.

Research questions:
What do we know about our community's preferences regarding hypertension management? Which lifestyle intervention is preferred in our community?

Method:
Cross-sectional, anonymous and voluntary study. Descriptive analysis. A self-report survey will be completed by 300 hypertensive patients, excluding a history of stroke and heart attack, from ages between 18 to 69 attending their neighborhood health center between September to December of 2025. The sample size was calculated to achieve an acceptable MOE of 5% based on a target population in our community of 1408. The survey consists of 19 multiple choice questions. Eleven of them are closed-answer questions from WHO StepWise survey oriented towards hypertension, exercise, nutrition, daily stress, limiting smoking/alcohol, and pharmacological treatment. In addition, it contains 4 questions about which therapeutic approach between exercise, nutrition, quitting smoking-drinking-drugs, pharmacological treatment and stress management is preferred in the community using a Likert scale score (1-5); Three questions address personal economic difficulties complying with treatment, one exclusion question and finally, if the individual would participate in a community activity if offered.

Results:
The analysis of personal and community preferences in controlling and treating hypertension through pharmacological management and lifestyle strategies will be used to elaborate a proposal of social prescription to implement in our community.

Conclusions:
Social prescription plays an important role improving access to health, instead of treating the disease itself. Because changes in lifestyle are difficult to follow, understanding better our community will help us chose the best strategy to recommend and implement through social prescription. Further research will be needed.

Points for discussion:
Community approach of hypertension.

Understanding our community health needs.

Health promotion to treat hypertension.

Presentation on 09/05/2025 14:10 in "Parallel Session D - Web Based Research Course" by Jesus Martin Treviño Theriot.

Web Based Research Course Presentation / Ongoing study no results yet

Digital interventions for cognitive and psychological symptoms in Long COVID: A Scoping Review and Healthcare Professionals' Survey

Sandra León-Herrera, Raquel Gomez Bravo, Ana Luísa-Neves, Marta Sánchez-Castro, Vinicius Jobim Fischer, Mª Pilar Rodríguez-Pérez, Djenna Humacher, Reham Aldakhil, Marina Vaillancourt De Dios, Rosa Magallon Botaya, Bárbara Oliván-Blázquez

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Keywords: Long COVID; digital interventions; cognitive symptoms; psychological symptoms; telehealth; healthcare professionals

Background:
Cognitive and psychological symptoms, such as "brain fog," anxiety, and depression, are prevalent in Long COVID patients, significantly impacting their quality of life and daily functioning. Despite the potential of digital interventions like teletherapy and mobile apps to address these challenges, their integration into primary care remains underexplored.

Research questions:
What digital health interventions are available for managing cognitive and psychological symptoms in Long COVID?

How knowledgeable are healthcare professionals about these tools, and what are their attitudes toward using them in practice?

Method:
This study comprises two phases:
• Scoping review: A systematic search of academic databases (2020–present) will identify studies evaluating digital interventions for cognitive and psychological symptoms in Long COVID. Data on intervention types, outcomes, and implementation will be synthesized narratively.
• Healthcare professionals' survey: A cross-sectional survey targeting 100+ primary care professionals across Europe will assess awareness, attitudes, and use of digital tools. Quantitative data will be analyzed descriptively, and qualitative responses thematically.

Results:
The project is currently in the second phase of the scoping review, with full-text screening of studies underway. Results are not yet available, but preliminary insights indicate promising avenues for digital interventions in Long COVID care.

Conclusions:
Digital interventions have potential to address unmet needs in managing cognitive and psychological symptoms in Long COVID. However, gaps in evidence and healthcare professionals' familiarity with these tools may limit their implementation.

Points for discussion:
How can primary care systems better support the adoption of digital interventions?

What additional evidence is needed to standardize the use of these tools?

Strategies for increasing healthcare professionals' confidence and training in digital health solutions.

Presentation on 09/05/2025 14:10 in "Parallel Session D - Web Based Research Course" by Sandra León-Herrera.

Web Based Research Course Presentation / Ongoing study with preliminary results

The Artificial Intelligence Simulated-Patient Tool for Clinical Training: a Mixed-Method Evaluation

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Keywords: Artificial Intelligence, Medical Education, Primary Health Care

Background:
Family medicine requires skills that include communication, decision-making and managing undifferentiated patients. Traditional teaching methods are resource-limited and vary in effectiveness. We designed an Artificial Intelligence (AI) simulated-patient tool that overcomes these challenges by simulating realistic patient interactions, providing personalised feedback and creating accessible learning opportunities.

Research questions:
How do General Practitioners (GPs) perceive the AI simulated-patient tool in terms of ease of use, benefits, and realism?
What are their opinions regarding the advantages, disadvantages, and features that could be improved in the AI simulated-patient tool?

Method:
This mixed-methods study recruited European GPs via the European Young Family Doctors Movement (EYFDM), networks and snowball sampling. Participants used the AI tool and completed a survey with demographic questions, nine 5-point Likert scale items (ranging from 1=Strongly Disagree to 5=Strongly Agree), and three open-ended questions on strengths, weaknesses, and improvements needed. Quantitative results were analysed using median and interquartile range (IQR), and triangulated with thematic analysis of qualitative responses.

Results:
We had 21 participants with a mean of 6.3 years of work experience. The tool was rated as easy to use (median 4, IQR 2), enjoyable, beneficial for clinical practice and for giving evidence-based feedback (all median 4, IQR 1). Its ability to make an appropriate response and the conversational flow were positively rated (both median 4, IQR 2). Participants supported its use in education (median 4, IQR 2) and strongly recommended it (median 5, IQR 1). Strengths included its supportive role, usability, educational value, and communication skill assessment, while weaknesses involved interaction limitations, realism and cultural challenges. Suggested improvements included expanding content, adding multilingual and cultural adaptations, and enhancing interactiveness.

Conclusions:
GPs perceived the AI simulated-patient tool as user-friendly, useful and evidence-based, highlighting its supportive, assistive role and educational value while suggesting improvements in realism, functionality, and cultural adaptability.

Points for discussion:
How useful would an AI simulated-patient tool be for teaching in your own health system?

What do you think the main advantages and disadvantages would be?

What topics in the medical curriculum might an AI simulated-patient tool be most useful for?

Presentation on 09/05/2025 14:10 in "Parallel Session D - Web Based Research Course" by Şeyma Handan Akyön.

One-Slide/Five Minutes Presentation / Study Proposal / Idea

Evaluation and Continuous Quality Improvement in Prescribing Proton Pump Inhibitors

Bárbara Duarte Ferreira, Carolina Pais Neto, Marta Valente Mendes, Cátia Almeida, Carla Almeida

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Keywords: Proton Pump Inhibitors; Deprescription;

Background:
Proton Pump Inhibitors (PPIs) are one of the most prescribed and used classes of medications worldwide. In Portugal, an increase in PPI sales was observed every year, with an estimated annual growth of 30%. PPIs began to be widely used, exceeding clinical indications. This is due, not only to its efficacy, safety and good tolerability, but also to the low cost of treatment. This inadequate prescription can occur in 25-70% of the cases.

Research questions:
The decision whether or not to deprescribe PPIs must be user-centered and doctors must review the indications for all medications used chronically in every consultation with the patient. PPI deprescription involves dose reduction, interruption or change to “on demand” dosing, following the guiding principle of using PPIs at the lowest effective dose for the shortest possible time. Therefore, the purpose is to evaluate and improve the profile of PPI use (and, therefore, their deprescription when not recommended), in a portuguese family health unit.

Method:
The aim is, therefore, to carry out a quasi-experimental study, with pre- and post-intervention evaluation, in a family health unit in Portugal. The target population was defined as the adult population chronically taking PPI, without indication. Patients who take PPIs for a period of ≤ 8 weeks are excluded, as well as patients who need to take PPI chronically due to health problems. Doctors from the family health unit are the peers for the internal assessment in question. The dimension being studied corresponds to the technical-scientific quality in the appropriate prescription of PPI. The quality indicator corresponding to the percentage of patients with adequate PPI prescription presents the following quality standards: insufficient (0 to 29%), sufficient (30 to 49%), good (50 to 69%), very good (70 to 89 %) or excellent (90 to 100%). Defined assessment periods include diagnostic assessment, first and second reassessment.

Presentation on 09/05/2025 16:00 in "Parallel Session E: One Slide Five Minute Presentations" by Bárbara Duarte Ferreira.

One-Slide/Five Minutes Presentation / Study Proposal / Idea

A Qualitative Interview Study on the Attitudes and Perspectives of 9-13 Year-Old Children and Parents Towards HPV Vaccine: An EGPRN Mentorship Project

Hüsna Sarıca Çevik, Elif Özeller, Lieve Peremans

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Keywords: Health Knowledge, Attitudes, Practice; Human Papillomavirus Vaccines; Qualitative Research; Vaccination Coverage; Vaccination Hesitancy

Background:
Despite the proven effectiveness of the HPV vaccine in preventing HPV-related diseases, the vaccine uptake remains low. Family physicians are the primary source for vaccination advice and administration. Current research lacks in-depth insight into the attitudes of parents and children of the primary vaccination age group regarding HPV vaccination in Turkey. This study aims to explore the reasons behind hesitancy, opposition, and fears related to vaccination. The ultimate goal is to support family physicians with better strategies to navigate these concerns in their patient-physician relationships to improve the vaccination rate.

Research questions:
What are the attitudes and perspectives of parents and children of primary vaccination age regarding HPV vaccination?

Method:
This qualitative study will be conducted at family health centres in districts with varying socioeconomic levels, Ankara University's paediatric outpatient clinics, and a sports club in Ankara, Turkey. One-on-one interviews and focus groups with a purposeful sample of 10 parents and 10 children aged 9-13 will be conducted until data sufficiency. The data will be analysed using thematic analysis.

Results:
This study will provide information to better understand the perspective of Turkish society towards the HPV vaccine and aims to contribute to health policies regarding the HPV vaccination in European countries with similar socio-cultural and economic conditions as Turkey.

Conclusions:
The findings will identify key factors contributing to hesitancy, opposition, or fears related to HPV vaccination among parents and children. Additionally, the results will highlight their information needs and perceived risks and benefits. Ultimately, these findings will inform family physicians and relevant clinicians about effective communication strategies and potential social awareness initiatives to increase HPV vaccination uptake.

Points for discussion:
Do you have any experience and suggestions for conducting a focus group interview with children aged 9-13? Would it be more effective to hold the focus group exclusively for parents?

What methods could be utilised to develop a common framework for data analysis to identify differences between children and parents in Turkey versus similar groups in Europe?

Given that the EU4Health program prioritises disadvantaged groups, such as immigrant communities in Europe, can the findings of this study also be used to create tailored approaches for these populations?

Presentation on 09/05/2025 16:00 in "Parallel Session E: One Slide Five Minute Presentations" by Hüsna Sarıca Çevik.

One-Slide/Five Minutes Presentation / Study Proposal / Idea

Diagnostic Accuracy and Determinants of GPs' Gut Feelings regarding Dyspnea and/or Chest Pain complaints in General Practice: A Cross-Border Study

Huseyin Elbi, Ece Yokus, Merve Vatansever Balcan, Fatih Ozcan, Mithat Temizer, Marie Barais, Erik Stolper

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Keywords: Dyspnea, chest pain, gut feelings, general practice,

Background:
Dyspnea and chest pain are common primary care complaints that range from benign to life-threatening conditions. General practitioners (GPs) are often the first caregivers in the health system, tasked with distinguishing between serious conditions and initiating appropriate referrals when necessary. However, diagnostic uncertainty frequently arises when specific clinical indicators are absent, particularly in the context of dyspnea and chest pain, where the underlying causes can be diverse and non-specific. In such situations, GPs often rely on gut feelings defined as a 'sense of alarm' and a 'sense of reassurance,' considered a third pathway in the cognitive process of diagnostic reasoning, medical decision-making, and problem-solving.

Research questions:
This study aims to investigate the diagnostic accuracy and determinants of GPs' gut feelings when evaluating patients with dyspnea and/or chest pain. Building on the work of Barais et al., the research adopts a cross-border approach to exploring how gut feelings, precisely the 'sense of alarm' and 'sense of reassurance,' contribute to clinical decision-making.

Method:
This study will collect data from GPs in multiple European countries using the Gut Feelings Questionnaire after consultations with patients with dyspnea and/or chest pain. It will analyze determinants influencing gut feelings, such as patient characteristics and clinical context.

Results:
This study will demonstrate the predictive value of gut feelings in identifying serious outcomes related to dyspnea and/or chest pain in primary care. Determinants influencing gut feelings, such as patient characteristics and clinical context, are anticipated to provide insights into their role in diagnostic reasoning. These findings highlight the relevance of gut feelings in improving decision-making in primary care and informing the training of physicians, particularly in handling diagnostic uncertainty.

Conclusions:
This cross-border study will reveal the contribution of gut feelings to GPs' clinical reasoning regarding dyspnea and chest pain. It aims to improve diagnostic quality and enhance patient safety in primary care.

Points for discussion:
How can the findings of this study be applied to improve diagnostic quality, patient safety, and the training of future general practitioners in managing diagnostic uncertainty?

How can GPs' patient recruitment and continuity be ensured throughout the study?

Presentation on 09/05/2025 16:00 in "Parallel Session E: One Slide Five Minute Presentations" by Huseyin Elbi.

One-Slide/Five Minutes Presentation / Study Proposal / Idea

Family Medicine in Europe: A Cross-Country Analysis of Differences and Similarities

Limor Adler, Yochai Schonmann, Michal Shani, Ilan Yehoshua, Galia Zacay, Robert Hoffman, Anthony Heymann, Shlomo Vinker

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Keywords: Family medicine; General practice; differrences; similarities

Background:
Family medicine, formally established as an academic discipline in Europe during the 1960s, demonstrates both shared principles and significant variation across countries. While holistic, patient-centered care and primary care accessibility are common goals, marked differences exist in funding structures, training programs, and the scope of practice, reflecting diverse cultural, economic, and policy environments.

Research questions:
To investigate the differences and similarities in Family Medicine among European countries.

Method:
A cross-sectional, multi-country study. A questionnaire will be developed with the group in a consensus process. Later, each representative from every participating country will fill out the questionnaire. A second researcher from each country will check the data and ensure its accuracy. The questionnaire will include the following domains:
1. Healthcare System Structure and Payment Models
a. The role of family medicine as a gatekeeper or direct access provider within healthcare systems.
b. Payment structures, including capitation, fee-for-service, salary models, or hybrid systems.
c. Healthcare coverage, universal access, healthcare payments.
2. Training and Professional Development
a. Residency program length and content, including variations in curricula and competencies required.
b. Availability and structure of fellowship programs or subspecialty training options (e.g., geriatrics, emergency medicine).
c. Research – in residency and later throughout the career.
d. Ongoing Training for specialists.
3. Scope of Practice and Clinical Responsibilities
a. Inclusion of fields such as gynecology, obstetrics, psychiatry, pediatrics, and chronic disease management in the day-to-day practice of family physicians.
b. Comparison of service delivery between urban and rural settings.
4. Technology and Innovation in Primary Care
a. Utilization of technologies like point-of-care ultrasound (POCUS), immediate point-of-care blood tests, telemedicine, and electronic medical records.
b. Manual skills – dry needling, injections, minor surgeries.
5. Access, Continuity, and Patient-Centered Care
a. Differences in patient access to family medicine services, average consultation times, continuity of care, and multidisciplinary team collaboration.

Points for discussion:
What are the differences and similarities in family medicine across Europe?

Presentation on 09/05/2025 16:00 in "Parallel Session E: One Slide Five Minute Presentations" by Limor Adler.

One-Slide/Five Minutes Presentation / Study Proposal / Idea

Interprofessional Collaboration in Primary Health Care

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Keywords: interprofessional collaboration, Primary Healthcare, general practice, general practitioner

Background:
Interprofessional collaboration (IPC) can be defined as the process of collaborative work between professionals from different fields, with the objective of achieving shared goals. A previous questionnaire in 2023 on general practitioners' views of the existing good practices of IPC found that while IPC was valued, there were variations in understanding the principles of IPC (often seen in sequential steps) and obstacles to its implementation.

Research questions:
The objective of this study is to analyse how GPs understand the nature of IPC and how to implement it in optimal way to primary health care.

Method:
This study will employ a qualitative research method in the form of semi-structured interviews. Individual or small focus groups (n=2-4) via web-based platforms (Teams) we be used. The interviewees will be GPs working in primary health care centres across Finland. Purposeful sampling to achieve heterogeneous group (age, expertise, area) will be used. The interview guide will be developed by the research group, with findings from the previous questionnaire study being utilised. The study will employ a qualitative descriptive approach, incorporating iterative inductive and deductive thematic analysis.

Results:
Not yet.

Conclusions:
Conventionally, general practice has been predominantly GP-based, with physicians being taught to exercise independent decision-making skills, characterised by a robust professional identity and a dedication to fostering the patient-physician relationship. However, in the contemporary context in complex care settings there has been an expansion of the health and social care professional workforce, with the presence of multiple different professionals in primary healthcare centres.

Points for discussion:
Which are practical/purposeful ways for GPs to do interprofessional work? Would they or their patients benefit deeper interprofessional work?

Should this study/interviewees be interprofessional? Would findings be more useful that way?

Should this be international study?

Presentation on 09/05/2025 16:00 in "Parallel Session E: One Slide Five Minute Presentations" by Henna Saari.

One-Slide/Five Minutes Presentation / Study Proposal / Idea

Optimizing Patient Communication: Streamlining Patient Email Management with Medical Language Models"

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Keywords: Medical Language Model, Primary Care Efficiency, Patient Communication, Artificial Intelligence in Primary Care

Background:
Primary care centers face significant challenges in managing the high volume of patient emails. These emails often include inquiries about medical concerns, appointments, prescriptions, or general health information. The manual processing of these communications by medical staff is labor-intensive and resource-consuming. This project explores the application of a Medical Language Model (MLM) to automate and improve email management in primary care.

Research questions:
Can a MLM efficiently automate the email management process in primary care centers, thereby reducing staff workload while maintaining patient satisfaction and care quality?

Method:
Using a dataset of anonymized patient emails spanning 3–5 years, the MLM will be trained to understand and respond to typical inquiries based on medical guidelines and the services offered by the care center. The system will integrate with existing email platforms to provide real-time, automated responses, ensuring privacy compliance with GDPR standards. Evaluation metrics include response time, accuracy of answers, patient satisfaction, and staff workload reduction.

Results:
The automated system is anticipated to significantly enhance efficiency by minimizing manual email handling and enabling staff to focus on complex cases. Patients are expected to benefit from quicker response times and consistent, evidence-based information. Additionally, the system has potential for analyzing patient communication trends to inform resource allocation and healthcare service planning.

Conclusions:
This research project demonstrates the transformative potential of integrating advanced NLP technologies like Medical Language Models into primary care, paving the way for scalable and efficient patient communication solutions.

Points for discussion:
How can we ensure patient confidentiality and compliance with GDPR during the anonymization and processing of sensitive medical data?

Will automation affect the personal touch and trust in patient-provider interactions?

How adaptable is the model to other languages, medical systems, or regions with varying healthcare infrastructures?

Presentation on 09/05/2025 16:00 in "Parallel Session E: One Slide Five Minute Presentations" by Florian O. Stummer.

One-Slide/Five Minutes Presentation / Study Proposal / Idea

The HOME Study: Assessing the Impact of Health Dialogues on Aging Populations

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Keywords: Health dialogues, quality of life, preventive healthcare, aging population, frailty

Background:
The global aging population is increasing, with those aged 80 and above projected to grow significantly by 2040. This study, under the acronym HOME (Healthy Older People through Movement and Engagement), will explore the short- and long-term effects of structured health dialogues on the health and quality of life of older adults. These dialogues, facilitated by primary care nurses, aim to empower individuals to reflect on their health, identify risk factors, and create personalized health plans to promote healthy aging.

Research questions:
• How does the intervention affect participants' quality of life compared to controls?
• How do function, activity, and healthcare utilization change in the groups?
• Is the health dialogue intervention cost-effective?
• Is the effect of the intervention related to individuals' estimated risk profiles?

Method:
This will be a randomized controlled intervention study with 500–1000 participants aged 67–84 from Borgholm Municipality, Sweden. Participants will be randomized into intervention and control groups, with a matched control group from adjacent regions serving as a broader population comparison.
The intervention will include a one-hour structured health dialogue conducted by a trained nurse, covering physical, mental, and social health aspects. A follow-up phone call will occur 3–4 months later to review progress. Outcomes will include EQ5D-5L and ICECAP-O quality-of-life measures, healthcare utilization, frailty, and cost-effectiveness. Quantitative analyses will utilize tools such as the Adjusted Clinical Groups and Charlson Comorbidity Index.

Results:
The study will assess whether structured health dialogues reduce hospitalizations and improve life satisfaction among older adults, contributing to resource-efficient healthcare and healthy aging strategies.

Conclusions:
This study will evaluate the potential of structured health dialogues as a preventive healthcare approach, offering insights into their role in supporting healthy aging and addressing health inequalities.

Points for discussion:
• How feasible is it to implement health dialogues across different healthcare systems, and what adaptations might be needed?

• Should health dialogues be directed to one or several risk groups or to the general population?

Presentation on 09/05/2025 16:00 in "Parallel Session E: One Slide Five Minute Presentations" by Lisa Alvunger.

One-Slide/Five Minutes Presentation / Study Proposal / Idea

Use of interpreters in primary care: characterising the population and its association with all-cause mortality and major adverse cardiovascular events.

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Keywords: Interpreters, all-cause mortality; major adverse cardiovascular events.

Background:
Given the diverse cultural composition of the U.K. and especially West Midlands, an increasing number of clinical consultations must be carried out with interpreter. Since general practice is the first point of access to healthcare in the U.K, this is an especially important issue in this sector.
Interpreters may improve a clinician's understanding of the patient's symptoms, and vice versa the patient's understanding of a clinician's advice. Alternatively, the need for an interpreter may be a marker of a particular disadvantage the patient faces in managing their health and wellbeing.

Research questions:
Does the population needing interpreters in primary care have the same all-cause mortality and MACE rates as those without interpreters?

The aim is to understand the characteristics associated with use of interpreters (ethnicities/socioeconomic background/age/sex/gender/region) in primary care and to explore the whether needing an interpreter is associated with mortality and major adverse cardiac events (MACE)
P: Adult (>18 years) English population
I: Use of interpreter in GP consultations
C: Population not requiring interpreters
O: All-cause mortality and MACE

Method:
This will be a retrospective matched cohort study using CPRD (Clinical Practice Research Datalink) Aurum primary care database.
Data will be extracted from CPRD (patients coded as requiring/using interpreters) and then matched with those not using interpreters according to risk factors for MACE (hypertension, diabetes mellitus, hyperlipidaemia, smoking, chronic kidney disease, obesity, sex, age, ethnicity, socioeconomic status (SES) and practice. Date and cause of death will be used to compare these outcomes between my two groups. A matching ratio of 10:1 has been proposed.

STATA will be used for statistical analysis/logistic regression to assess how these two cohorts vary in sociodemographic characteristics. Subgroup analysis will also be carried out (ethnicity, age, sex, SES, practice area location).

Conclusions:
Use results to explore and improve health inequalities in patients using interpreters in future healthcare planning.

Points for discussion:
What results would you expect in your country/region?

What is your experience of using interpreters in primary care?

What policy recommendations are needed for interpreter services in healthcare systems, especially in primary care?

Presentation on 09/05/2025 16:00 in "Parallel Session E: One Slide Five Minute Presentations" by Priya Sarkar.

One-Slide/Five Minutes Presentation / Study Proposal / Idea

Use of tools to detect inappropriate prescribing in older patients – a questionnaire study

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Keywords: inappropriate prescribing, general practitioner, older people, primary care, questionnaire

Background:
Inappropriate prescribing occurs in older patients in primary care. Physiological changes and multiple concomitant diseases add to the complexity of drug treatment decisions in this age group. For guidance, follow-up, and research purposes, several screening tools have been developed to detect potentially inappropriate medications (PIMs) and potential prescribing omissions (PPOs), some of which are integrated into clinical decision support systems. However, the extent to which these tools are used in primary care has not been mapped. The aim of this study is to explore this issue in the European context.

Research questions:
How are screening tools of PIMs and PPOs used in primary care in Europe?

Method:
A questionnaire study will be conducted in European countries where key informants can contribute data. An online questionnaire will be developed, including questions regarding how tools for detecting PIMs/PPOs are integrated in the clinical workflow as well as in the education of medical students and general practitioners. The questionnaire will also include questions regarding administrative follow-up of prescribing in primary care using such tools, for instance for pay-for-performance or educational outreach. Key informants will be initially recruited during the EGPRN conference.

Results:
A study protocol is planned to be presented at the conference.

Conclusions:
This study will provide insights into the practical application of PIM/PPO screening tools in European primary care.

Points for discussion:
Choice of the key informants: background, experience, the number required?

Practical aspects of questionnaire distribution in different countries.

Operational definition of PIM/PPO tools.

Presentation on 09/05/2025 16:00 in "Parallel Session E: One Slide Five Minute Presentations" by Luisa Ocampo Molano.

Freestanding Paper / Finished study

Climate change and health "through primary care physicians' eyes": a qualitative study in Greece

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Keywords: climate change, health, health literacy, Primary Health Care, physicians, qualitative research, perceptions

Background:
Primary Care Physicians' (PCP) role in caring for their community within the context of One Health, whilst strengthening climate resilience was acknowledged in the revised European Definition of General Practice. Data on PCPs' awareness, climate crisis perceptions and their role are scarce. This study investigated PCPs' stances regarding the impact of climate change on population health and how they conceptualize their professional responsibility in promoting environmental health and sustainability.

Research questions:
What are Greek PCPs' perceptions regarding climate change, its consequences on health and their role in strengthening their community's climate resilience?

Method:
A qualitative study was employed. PCPs with at least one year work experience participated in remotely-conducted, semi-structured, individual interviews, after signing informed consent forms. Interviews were recorded, and transcribed verbatim. Thematic content analysis was used.

Results:
Fifteen PCPs across nine prefectures were interviewed (44±18 years old, 53% women, 12±6 years of experience). The majority acknowledged the climate crisis, recognizing its already-evident effects in the Greek population's health: increased morbidity and mortality from extreme weather events; surge of allergies; increased non-communicable chronic diseases; upsurge of infectious diseases; overburdened mental health; and the impact of available food sources' scarcity and inferior quality. Yet, few were unaware and unconvinced of climate change's effects in their community. Underlining the fundamental patient-PCP trust and PCPs' role in strengthening health literacy, most viewed highly of their involvement in educating their community about the climate crisis and its impact in health. Citing fatigue, knowledge gaps and state responsibility on the matter, few noted that raising their community's awareness was not within their competences. Further training on climate-related health issues and sustainable medical practices was considered of utmost importance.

Conclusions:
Findings underscore the need for increased PCPs' awareness, training and active involvement in advancing Planetary Health and sustainability. Strengthening health and environmental health literacy is key in shaping future-proof communities.

Points for discussion:
How can PCPs effectively elevate their community's environmental consciousness?

How can PCPs fulfill their role and effectively intervene to promote and advance the health and wellbeing of patients and ecosystems?

In what ways has your practice's workload been affected by climate change?

Presentation on 09/05/2025 16:00 in "Parallel Session F - Freestanding Papers: Healthy life in a healthy environment" by Ilias Pagkozidis.

Freestanding Paper / Finished study

Guidelines for sustainable health care research: Department of research for general practice in Copenhagen, Odense, Aarhus, and Aalborg, Denmark

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Keywords: Health care research, sustainability

Background:
The primary goal of health care research is to investigate and improve individual and public health. This can feel contradictory in a time with climate and biodiversity crises where research also contributes to greenhouse gas (GHG) emission, and threatens public health. At the same time, there is an increasing social inequity in health, as well as, a significant gap in inclusion of minorities in research based on sex, ethnicity, and socio economic status.

Research questions:
The aim is to develop a guideline that includes the three pillars of sustainability (environment, societal and economics) throughout the research process.

Method:
We combined published rapports and guidelines on 1) Environmental sustainability: Research and Development (RAND) Europe on climate and environmental sustainability research in health care and National Institute for Health and care Research (NIHR) on research guidelines to reduce GHG emissions from research. 2) Social sustainability: NIHR-INCLUDE guidelines for improving inclusion of under-served groups in clinical research, National Academies of Sciences, Engineering and Medicine rapport on improving representation in clinical trials and research: building research equity for women and underrepresented groups, and Time Needed to Treat (TNT) a tool to assess the clinicians time and prioritize personal resources. 3) Economic and governance sustainability: Lancet Reduce research waste and reward diligence (REWARD) campaign.

Results:
We included in total 26 recommendations to consider for sustainable health care research. There are nine recommendations for reducing environmental and climate impact of research. There are seven recommendations for better societal inclusion, supporting equity and equality, and including TNT. There are ten recommendations for reducing economic and governance waste regarding research.

Conclusions:
Sustainability process is dynamic and continuous. This is the first step in the process for researcher to use sustainability in all the research processes', from preparing the thesis, conducting research, reporting and including the significance of future implementation of the results.

Points for discussion:
Sustainable research, is it possible?

Presentation on 09/05/2025 16:00 in "Parallel Session F - Freestanding Papers: Healthy life in a healthy environment" by Asthildur Arnadottir.

Freestanding Paper / Almost finished study

Investigating the role of general practitioners in prescribing physical activity in Belgium

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Keywords: general practitioners, physical activity, lifestyle, prescription

Background:
In Belgium, almost 30% of the population over the age of 15 is exposed to a health risk due to physical inactivity. Evidence shows that physical activity on prescription (PAP) has a positive impact on PA levels and metabolic health.

Research questions:
What is the current involvement of GPs in PAP?

Method:
First, a mapping exercise was carried out to identify initiatives and policies related to PAP. Second, a cross-sectional online survey was conducted among GPs. Third, a population-based study of data collected by the Belgian Sentinel GPs (SGP) network in 2023. Descriptive statistics were performed.

Results:
In Belgium, about 40 initiatives and 8 policies were identified. PAP was provided through either coaching (motivational) sessions and/or collective adapted physical activity sessions. Different providers were identified: primary healthcare centres, non-governmental organisations, pilot projects launched by governmental agencies, sport centres, and hospitals. Amongst PAP initiatives, GPs were always reported as prescribers.
134 GPs completed the survey. Among respondents, 75% identified chronic disease and exercise initiation as incentives for PAP whilst 44% reported discussing the benefits of PA with patients living with a chronic disease. 86.8% (would) prescribe if patients' health status would be remedied by increasing PA, while 35.8% (would) use PAP if patients are inactive, regardless of their health status.
Between January and December 2023, 22 PAP were reported by SGPs. 63.7% of cases concerned female patients and median age was 53.5 [Q1 38.3; Q3 75.0]. Almost all individuals (95.5%) had a chronic condition, with the most commonly reported condition being overweight/obesity (81.8%), low back pain (36.4%), depressive disorders (33.5%) and hypertension (27.3%).

Conclusions:
In Belgium, PAP exists in different forms. GPs used (were willing to use) PAP in their practice and were identified as the main prescribers. PAP was often used for primary and secondary prevention, often focusing on patients with a chronic disease.

Points for discussion:
Can PAP be routinely implemented as a non-medical therapeutic strategy to counter the health risks associated with inactivity and sedentary behavior?

Facilitators and barriers to scale-up the implementation and use of PAP

Presentation on 09/05/2025 16:00 in "Parallel Session F - Freestanding Papers: Healthy life in a healthy environment" by Sherihane Bensemmane.

Theme Paper / Finished study

Determinants of the use of teleconsultation, on the side of the doctor and depressed patients in their follow-up in France

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Keywords: depressed patients, telehealth,

Background:
One in five people will experience depression at some point in their lives. GPs are the frontline healthcare professionals who care for these patients, regardless the stage of the illness. Telepsychiatry is rapidly expanding worldwide, particularly in the United States, Australia, and Canada. While telepsychiatry pilot programs have been conducted in France, mainly among psychiatrists, their development remains sluggish in primary care.

Research questions:
To understand the promoting factors and barriers to the use of teleconsultation in monitoring depression by depressed patients and general practitioners.

Method:
This qualitative study adopted an approach inspired by grounded theory. Semi-structured interviews were recorded with patients with depression, recruited through their general practitioner or psychiatrist. Opinions were also collected from general practitioners, interns, and locum doctors recruited via word of mouth. The study aimed to encourage free expression on topics such as managing depressive syndrome in recent consultations, perceptions of its primary care monitoring, and experiences with teleconsultation, particularly in its role in managing depressive syndrome.

Results:
Ten patient interviews revealed key findings. Facilitators for teleconsultation in managing depressive syndrome included travel difficulties due to illness, the comfort of consulting from home, the need for prior in-person follow-up to build trust, and accelerated adoption during the COVID-19 pandemic. Barriers included the symbolic importance of travel, confidentiality concerns, severe symptoms, and the screen limiting non-verbal communication, complicating mood reassessment and treatment adjustments. Patients also feared distancing from traditional care and a dehumanized doctor-patient relationship.
For doctors, facilitators included monitoring stable patients, reassessing treatments or work stoppages, saving time, and addressing care for distant or unscheduled cases. Barriers included weakened doctor-patient relationships, technical issues, and challenges in adapting to new organizational changes.

Conclusions:
Ambivalence was observed among doctors, likely linked to fears about changes in practice. Comparing doctor and patient perspectives shows patients are less hesitant about teleconsultation than general practitioners.

Points for discussion:
What measures can be implemented to preserve the human aspect of care in a digital context?

What are the risks of widening health inequalities associated with the use of teleconsultation ?

Are these findings transferable outside this crisis context?

Presentation on 10/05/2025 09:10 in "Parallel Session G - Theme Papers: Care for vulnerable people" by Alain Mercier.

Theme Paper / Published

Exploring patient-centered design solutions of a telehealth app for HIV – A qualitative study

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Keywords: user-centered-design, telehealth, patient-centered, collaboration

Background:
The COMTRAC-HIV (Communication-and-Tracing-App-for-HIV) project is focused on the development of an innovative mobile health (mHealth) application aimed at facilitating integrated care for individuals living with HIV in Germany. Given the intricate nature of HIV treatment and the necessity for continuous, patient-centered care. This qualitative study investigates potential design approaches and evaluates a prototype to optimize the app's functionality and improve its overall effectiveness for both patients and healthcare providers.

Research questions:
How does a telehealth app for HIV have to be designed in terms of functionalities and usability to meet the expectations and needs of patients?

Method:
A cohort of eight individuals, including HIV patients and users of pre-exposure prophylaxis, recruited from the HIVCenter, to participate in focus groups and think-aloud (TA) usability tests. An interactive prototype was developed based on the results of focus groups. The usability of this prototype was subsequently assessed through TA tests. Data collection involved video and audio recordings for comprehensive analysis. A qualitative analysis was performed using a deductive category system.

Results:
The app was praised for its straightforward and user-friendly design, particularly its features for medication reminders and health tracking.
In the think-aloud (TA) usability test, a total of 25 usability issues were identified, majority in the categories of layout (n = 6), navigation (n = 5), interaction (n = 5), and terminology (n = 5). Examples of these issues included non-intuitive controls and poorly placed buttons. Despite these challenges, participants provided positive feedback in the satisfaction category (n = 5), reflecting an overall favorable impression of the app.

Conclusions:
The study underscores the importance of patient-centered design in mobile solutions for HIV care, emphasizing the app's user-friendliness and its potential to improve patient care and engagement. However, further research is needed to refine its functionality and ensure alignment with both clinical requirements and patients' privacy concerns.

Points for discussion:
In which phase of the development of telehealth apps should we involve patients?

How can we address for example comorbidities and different social backgrounds in development of telehealth systems?

Presentation on 10/05/2025 09:10 in "Parallel Session G - Theme Papers: Care for vulnerable people" by Angelina Müller.

Theme Paper / Almost finished study

Preliminary Evaluation of Telemedicine in Elderly Care Facilities: Reducing Travel Expenses Through On-Site Diagnostic Tools and Remote Collaboration”

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Keywords: Telemedicine, Elderly Care, Nursing Home, Cost-Benefit Analysis, Teleconsultation, Point-of-Care Ultrasound (POCUS), Travel Expenses Reduction, On-Site Diagnostics, Rural Healthcare

Background:
Teleconsultation has emerged as a cost-effective strategy to reduce healthcare expenditures and improve patient outcomes, particularly in elderly care facilities. This preliminary study evaluates travel-related costs in various Veneto region nursing homes and explores how telemedicine, supported by on-site diagnostic tools, could mitigate such expenses.

Research questions:
How many visits can be effectively replaced by a remote consultation?
How many examinations can be performed without moving the patient, but through remote reporting?
How much could be saved by properly implementing telemedicine-teleconsultation?

Method:
Quantitative analysis of costs and possible savings associated with implementing telemedicine in elderly care residences compared to traditional care models.

Results:
More than 600 transportation bills were evaluated, of patients with an average age of 85 years. Our initial data indicate that nearly half of patient visits are currently unavoidable, needing direct clinical evaluation or advanced diagnostic imaging, while one-quarter could be almost entirely eliminated through routine teleconsultation. Another quarter could potentially be avoided with additional on-site diagnostic capacities—namely point-of-care ultrasound, spirometry, Holter monitoring, and electrocardiography—once that staff receives appropriate training and infrastructure and teleconsultation regulamentation are upgraded. Approximately up to 33% of costs could be saved.

Conclusions:
These findings highlight the importance of targeted training, strategic technology adoption, and robust telemedicine protocols in reducing patient travel, curbing overall expenditures, and improving care quality in elderly settings. Although point-of-care ultrasound (POCUS) remains a minor element in this initial phase, it represents a promising avenue for future teleconsultation programs aiming to optimize remote diagnostics and further decrease costs. This study could provide data to support funding for telemedicine initiatives by highlighting potential cost savings for healthcare systems and individual facilities.

Points for discussion:
An increasingly older population and increasingly scarce and tired GPs: is telemedicine a burden or a relief?

Is the cost-saving and time-saving side of telemedicine the Graal of national health services ? Are we on the right side of history, sacrificing the human touch?

About prescribing (un)appropriateness and waiting lists. Is teleconsultation the final coming of age of the General Practice?

Presentation on 10/05/2025 09:10 in "Parallel Session G - Theme Papers: Care for vulnerable people" by Lorenzo Rizzotto.

Freestanding Paper / Almost finished study

GPs' and Patients' Perceptions regarding Suitability of Remote Consultations: Matched data from Norwegian General Practice

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Keywords: Remote consultations, telemedicine, e-health, digital medicine, suitability, communication, safety, general practice, family medicine,

Background:
There is a notable lack of research involving studies that incorporate shared perceptions of remote consultations by both GPs and patients. We therefore examine common perceptions and misconceptions about whether patient and GPs find remote consultations safe and suitable.

Research questions:
The research questions are to what extent GPs and patients align in their perceptions of the suitability of remote consultations, and secondly, to identify characteristics of GPs, patients, and remote consultations linked to whether GPs and patients agree or disagree on suitability.

Method:
To measure the level of agreement between GPs and patients on suitability, we provide an agreement matrix of 580 matched answers, incorporating 50 background variables. For the second research question, we use descriptive statistics, Chi quadrate and logistic regression to analyze agreement between GPs and patients on suitability, with background variables as predictors.

Results:
The shared perception of suitability between GPs and patients is higher when remote consultations are arranged by the patients or GPs rather than by secretaries or relatives. Allowing patients to ask questions and receive useful answers enhances this shared perception. There is higher shared suitability for known and non-urgent issues, and when GPs experience remote consultations as a variation in their daily routine, and for managing sick leave and vulnerable patients. However, shared perception of suitability decreases significantly with multiple topics, perceived complexity, GP exhaustion, and GPs' concerns about overlooking serious illness. Trust in the patient's health competence and communication skills positively affects suitability. Consultations for overviews and follow-ups receive the highest shared suitability.

Conclusions:
Addressing these factors in advance may enhance the consultation experience and outcomes, ensuring that both patient needs and clinical standards are met effectively.

Points for discussion:
Making guidelines for how and when to use remote consultations?

Discuss when it is even better?

Presentation on 10/05/2025 09:10 in "Parallel Session H - Freestanding Papers: The GP as a person: implications for practice" by Børge Lønnebakke Norberg.

Freestanding Paper / Finished study

Letters to General Practice: Exploring female GPs' experiences and expectations of a sustainable career in general practice

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Keywords: Female GPs, Career sustainability, General Practice

Background:
Sustaining a career in general practice is often hindered by system-level challenges including resource shortages and increasing workloads. Gender further intensifies these pressures, as female general practitioners (GPs) struggle to balance work-life demands. The aim of this study is to explore and describe the experiences and perspectives of female GPs, in various stages of navigating the 'figured world' of general practice and to describe the complex intersections between identity as a GP and the realities of general practice in Ireland.

Research questions:
The overarching question of 'How do female GPs in Ireland navigate the practical and emotional tensions in the figured world of general practice and do they envisage a sustainable career in this context?'

Method:
In total, 13 online interviews were conducted using the 'Love and Breakup letter' method. Thematic analysis was employed to interpret participant narratives.

Results:
The 'love' letters highlighted that working as a GP was seen as a privilege and an inseparable part of female GP identity. The 'beauty' of general practice lies in the unique context of establishing long-term relationships with patients and providing continuity of care. A supportive peer network was identified as essential in providing a sense of community and belonging.
However, female GPs shared stories of the burdens that strain this relationship, including the increasing complexity of patient care, public expectations, and career-life tensions. The 'break up' letters identified dissatisfactions with the system set-up, family sacrifices made, gender-related challenges, and insufficient support. The incompatibility between work and family life, led many to adapt their careers, including leaving the profession, reducing clinical hours, or pursuing portfolio careers, to regain balance and manage competing demands.

Conclusions:
The career of a GP was treasured among women who chose this profession, however, significant system changes have to take place to ensure ideals of sustained and satisfying GP careers.

Presentation on 10/05/2025 09:10 in "Parallel Session H - Freestanding Papers: The GP as a person: implications for practice" by Ivana Keenan.

Freestanding Paper / Almost finished study

What is the prevalence of chronic diseases in the assigned population of a GP, according to the GP personality? Preliminary results from the GP personality collaborative study

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Keywords: Personality Inventory, Physicians, Primary Care, diagnosis, Chronic Disease

Background:
The personality of a general practitioner (GP) may influence diagnostic decisions and patient care

Research questions:
Is there an association between GP personality traits and the prevalence of chronic diseases (CD) in their practice?

Method:
Cross-sectional, survey-based study in 9 European countries.
Population: GPs attending the same population for >1 year.
Variables: Socio-demographics, years of experience, years at the current practice, and prevalence of chronic diseases among the panel. Personality Assessment: Big Five Inventory, (44-item Likert scale), personality traits: Openness to Experiences (OE), Conscientiousness, Agreeableness, Extraversion, and Neuroticism. Chronic Diseases: Diabetes, hypertension, coronary heart disease, stroke, anxiety, depression, arthrosis, and COPD.
Analysis: Descriptive and bivariate analyses were conducted. Personality traits were categorised into tertiles, and CD were grouped by medians. Logistic regression models, adjusting by country, years of experience, years at the same practice, and total patient.

Results:
In all, 531 GPs from eight countries were included, (mean age 46 (SD:11.6) years; 376 (70.8%) women). Participants had 15.4 (SD:10.8) years of experience and attended the same population for 11.2 (SD:9.5) years.
BFI scores: OE:3.3 (IQR:3–3.6); Extraversion: 3.3 (IQR:2.9–3.6); Agreeableness: 3.7 (IQR:3.2–4); Conscientiousness: 3.7 (IQR:3.2–4); and Neuroticism: 2.8 (IQR:2.4–3.1).
Crude odds ratios (ORs) indicated that higher scores for OE, Extraversion, Agreeableness, and Conscientiousness were associated with a greater prevalence of hypertension: OE, OR:1.84 (95%CI:1.18–2.89, p-value=0.007); Extraversion, OR:2.21 (95% CI:1.38–3.55, p-value<0.001); Agreeableness, OR:1.98 (95%CI:1.25–3.15, p-value=0.003); Conscientiousness: OR:1.67 (95%CI:1.07–2.60, p-value=0.022).
Agreeableness was associated with higher prevalence of patients with depression OR:1.82 (95%CI:1.15–2.89, p-value=0.009) and arthrosis OR:1.89 (95%CI:1.19–2.89, p-value=0.006).
After adjusting for confounders, all associations lost significance, except for arthrosis and Agreeableness OR:2.14 (95%CI:1.24–3.70, p-value=0.006).

Conclusions:

GPs with higher Agreeableness scores had a greater percentage of patients with arthrosis. However, no association was found in the rest of crude associations. Nonetheless, personality traits were consistently included in the best-fitting regression models, suggesting that GP personality may influence clinical practice.

Points for discussion:
What do you conclude from this results?

Do you think that patients with muskuloskeletical complaints require more agreable doctors?

What personality traits you believe are neccessary to practice Family Medicine?

Presentation on 10/05/2025 09:10 in "Parallel Session H - Freestanding Papers: The GP as a person: implications for practice" by Ileana Gefaell.

Poster / Finished study

"Healthcare Access and Digitization: A Comparative Analysis of Primary Care, 1177 Direct, and Private Digital Platforms"

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Keywords: Digital healthcare, primary care, healthcare utilization, eHealth, 1177 Direct, demographic analysis

Background:
The digitization of healthcare is a proposed solution to address significant demographic challenges. Among these advancements, digital care services for patients have emerged as a cornerstone. The "1177 Direct" service, introduced across many Swedish regions in 2023, is a triage tool facilitating patient interactions via chat and video. Despite growing research on healthcare digitization, gaps remain in understanding how patients utilize these digital services compared to traditional healthcare.

Research questions:
What are the demographic and behavioral differences among patients using traditional primary care, 1177 Direct, and private digital healthcare providers?

Method:
This retrospective registry-based study employs a quantitative approach. Data were analyzed using descriptive statistics (tables and graphs) and comparative statistical tests, including t-tests and chi-squared tests, to identify differences between patient groups accessing care through the three healthcare pathways.

Results:
The findings reveal significant variations in demographics and utilization patterns. Among the contacts (n= 956,756) who have been managed via traditional primary care, the average age is 56.77 years with a standard deviation of 23.05. The average age when contacting 1177 directly is 36.44 years (n= 3,717) with a standard deviation of 18.87. For contact that took place with private digital healthcare providers, the mean age is 33.53 (n=56,260) and the standard deviation is 18.37. The results show that younger patients predominantly use digital healthcare, with women accounting for the majority of contacts across both 1177 Direct (61%, n=2,253) and private digital providers (66%, n=37,301). Additionally, digital care services are primarily used by patients residing in larger municipalities compared to traditional primary care.

Conclusions:
This study highlights distinct demographic patterns in healthcare utilization across different access points. The findings suggest a growing preference for digital services among younger populations and urban residents, emphasizing the need to address disparities in digital access and healthcare delivery.

Points for discussion:
1. How can healthcare systems ensure equitable access to digital services for rural populations?

2. What strategies can address the gender disparities observed in digital healthcare utilization?

3. How can digital healthcare be tailored to better meet the needs of older populations?

Presentation on 10/05/2025 11:00 in "Poster Session 1: Telehealth" by Sandra Stern.

Poster / Ongoing study with preliminary results

HealthData@MAD-R&I: Enhancing Primary Care with Secondary Data Use for Research

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Keywords: European Health Data Space, Federated data-sharing platform, Secondary use of health data, Interoperability, Data governance, Primary care

Background:
The HealthData@MAD-R&I project responds to the European Health Data Space (EHDS) strategy by developing a scalable, federated data-sharing platform in the Spanish region of Madrid. This initiative addresses critical barriers in primary health care (PHC), such as interoperability, data governance, and privacy, to enable secondary use of health data for research and innovation

Research questions:
1. How can a federated health data architecture enable secure, interoperable, and scalable PHC data sharing?
2. What governance and technical frameworks are essential for fostering trust and usability of secondary health data in PHC?
3. How can specific use cases validate the operational model and demonstrate value for stakeholders in PHC?
4. How can a federated health data platform enhance PHC by enabling secure, interoperable, and impactful secondary use of health data?

Method:
HealthData@MAD-R&I integrates existing platforms (Infobanco, Cloudera, and Hipócrates) into a federated data ecosystem. The project employs privacy-preserving technologies and standardized data formats (OMOP) to ensure compliance and interoperability. Four use cases are designed to demonstrate potential: optimizing referrals for rheumatic diseases, improving care pathways for breast cancer survivors, preventing unplanned hospitalizations, and evaluating statin effectiveness. Stakeholder engagement across healthcare providers, researchers, and policymakers underpins the governance model.

Results:
The project aims to deliver a scalable, secure data-sharing platform that supports secondary use of health data. The use cases are expected to validate the framework's potential to enhance healthcare decision-making, enable data-driven research, and foster economic growth through innovation.

Conclusions:
The HealthData@MAD-R&I project demonstrates how a federated data-sharing platform can address interoperability and governance challenges while enabling impactful secondary use of health data. By validating its framework through diverse use cases, the initiative aligns with the European Health Data Space strategy and provides a scalable model for advancing healthcare and innovation globally.

Points for discussion:
1. How can this approach address real-world interoperability challenges and enhance the utility of data?

2. What lessons can be drawn from implementing a federated platform in a regional health system?

3. How can findings inform broader European and global health data-sharing strategies in PHC?

Presentation on 10/05/2025 11:00 in "Poster Session 1: Telehealth" by Montserrat León-García.

Poster / Ongoing study with preliminary results

Integrating Telehealth in Primary Care: an Albanian Perspective

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Keywords: telehealth, primary care, Albania

Background:
Telehealth involves delivering health care remotely using various telecommunication tools offering numerous advantages in primary health care (PHC). So far, Albania has been working on developing a National Telemedicine Network to enable smooth exchange of medical information and teleconsultations among healthcare providers.

Research questions:
1. What is the experience of using Telehealth tools among Albanian primary healthcare workforce?
2. What are the main challenges primary healthcare workers face while using telecommunication tools in providing healthcare services?
3. How do they view the future of integrating telehealth in primary healthcare in Albania?

Method:
An online survey was disseminated between the months of November and December 2024 through social media communications. The survey comprised questions regarding individual demographics, experiences of delivering telehealth consultations, challenges they face and future perceptions of telehealth.

Results:
Only sixty professionals responded to the survey, including physicians, nurses, pharmacists, and other stakeholders. Overall, they recognize telehealth as a positive tool for increasing accessibility, reducing wait times, and offering alternatives in emergency or rural settings. However, poor internet connectivity, limited access to technology, lack of training, and difficulty in maintaining patient trust and data privacy were the most common challenges reported. Inability to perform physical examinations reported as a limitation in providing an accurate diagnosis. Overwhelmingly, participants viewed telehealth as an essential part of future healthcare delivery, particularly with advancements in technology, increased training, and improved infrastructure.

Conclusions:
In Albania, telehealth presents a promising bridge to strengthen primary health care systems toward universal health coverage. However, its successful integration will depend on addressing technical barriers, building trust, and providing adequate training to healthcare professionals and patients.

Presentation on 10/05/2025 11:00 in "Poster Session 1: Telehealth" by Albana Greca (Sejdini).

Poster / Ongoing study with preliminary results

Leveraging Telehealth for Improved Healthcare Access in Remote Tajikistan: Feasibility and Impact in Sughd Oblast Pilot Districts

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Keywords: Telehealth, remote populations, health financing reform, quality of care, digital health, Tajikistan, primary health care

Background:
Telehealth has gained prominence as an innovative solution for overcoming healthcare access barriers, particularly in underserved and geographically remote regions. During the COVID-19 pandemic, its importance became evident in Tajikistan, prompting efforts to strengthen primary health care (PHC) infrastructure and capacity. Sughd Oblast, a pilot region for health financing reforms emphasizing output-based financing, provides a unique setting to assess telehealth integration within PHC systems to enhance access and quality of care.

Research questions:
1. What are the technical and operational feasibility aspects of telehealth in Sughd Oblast?
2. How can telehealth address healthcare gaps, particularly for remote populations?
3. What challenges hinder the consistent and effective use of telehealth in PHC?

Method:
A mixed-methods approach was used to evaluate telehealth feasibility. Quantitative data on health system performance and population demographics were analyzed alongside qualitative insights from interviews with healthcare providers, patients, and policymakers. Key areas of focus included infrastructure readiness, workforce capacity, regulatory framework, and community acceptance. Household surveys highlighted unmet healthcare needs linked to workforce shortages and facility limitations.

Results:
Preliminary findings suggest telehealth is technically feasible in pilot districts due to existing telecommunication infrastructure and the organization of PHC. Telehealth has the potential to bridge geographic and service delivery gaps, enabling remote consultations with specialized centers. However, challenges such as limited digital literacy, cultural hesitancy, and costly internet connectivity persist. Patients expressed enthusiasm for telehealth, emphasizing its cost and time-saving benefits. Policymakers noted its utility for managing non-communicable diseases and maternal health.

Conclusions:
Telehealth offers significant potential to transform healthcare access in Sughd Oblast, particularly in rural areas. While health financing reforms provide a strong foundation, addressing barriers like digital literacy and internet affordability is critical. Investments in PHC infrastructure, workforce development, and public engagement are essential for scaling telehealth and improving health outcomes in Tajikistan.

Points for discussion:
Strategies for enhancing digital literacy among healthcare providers and patients.

Policy frameworks to ensure equitable access to telehealth services.

Overcoming financial and cultural barriers to telehealth adoption in remote areas.

Presentation on 10/05/2025 11:00 in "Poster Session 1: Telehealth" by Farrukh Egamov.

Poster / Almost finished study

Telehealth and Mobile Diabetes Nursing in Rural Sweden

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Keywords: Telehealth, Diabetes Nursing, Type 1 Diabetes, Rural Healthcare, Continuous Glucose Monitoring, Home Care, Patient Education, HbA1C

Background:
In rural areas, access to specialized diabetes care remains limited, despite Sweden's tradition of diabetes-specialized nursing since the 1970s. Existing research highlights the potential of telehealth and mobile nursing, but further evidence is needed to assess their feasibility and impact. This study provides new insights into how digital consultations and mobile diabetes nursing can enhance care delivery in rural settings.

Research questions:
Can telehealth and mobile diabetes nursing improve diabetes management and patient satisfaction in rural settings while maintaining clinical outcomes?

Method:
This pilot study included two sub-projects. Digital Diabetes Contacts involved a diabetes nurse conducting repeated video consultations with 13 type 1 diabetes patients (aged 25–72) using continuous glucose monitoring and insulin pumps. Four PROMs were collected, and semistructured interviews were conducted pre- and post-intervention. Mobile Diabetes Nurse involved training home care nurses to support 19 elderly patients (aged 75–90) with type 1 diabetes through peer mentoring and joint patient visits, including virtual sessions. Outcomes included changes in HbA1c, time-in-range, and qualitative insights from interviews.

Results:
Preliminary results showed stable HbA1c and time-in-range metrics from baseline to follow-up, despite influencing factors such as mental health issues and pump failures. Patients appreciated reduced travel time, cost savings, and environmental benefits, although survey fatigue was noted. Home care nurses reported increased competence and confidence in diabetes management.

Conclusions:
Telehealth and mobile diabetes nursing are feasible and acceptable strategies for enhancing care delivery in rural Sweden. These interventions can improve patient satisfaction while maintaining clinical outcomes. The findings will inform the design of a randomized controlled trial and further refinement of the Mobile Diabetes Nurse model, with potential for broader applicability in similar rural contexts.

Points for discussion:
How can telehealth ensure high-quality diabetes management in rural settings?

What are the challenges of integrating mobile diabetes nursing for elderly patients?

How can these findings shape the scalability of future interventions?

Presentation on 10/05/2025 11:00 in "Poster Session 1: Telehealth" by Monika Lund.

Poster / Finished study

Telehealth in Primary Care: Demographic and Health Characteristics of Users and Non-Users in Sweden (n=73,486)

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Keywords: Telehealth, Primary healthcare, Socioeconomic status, Healthcare utilization, Resource utilization

Background:
Telehealth in primary healthcare has the potential to address several key challenges in healthcare delivery. However, its success largely depends on which patient groups adopt this technology. Understanding the differences between users and non-users of telehealth services is crucial for tailoring implementation strategies.

Research questions:
This study aimed to investigate the differences between users and non-users of telehealth integrated into traditional office-based primary healthcare in two regions of southeastern Sweden.

Method:
A quantitative registry-based population study was conducted across two regions in Sweden, involving 73,486 individuals. The study compared telehealth users and non-users across sex, age, socioeconomic status, morbidity, and healthcare seeking behavior. Data were collected over two study periods: from September 2019 to February 2022. A reference period from September 2016 to August 2019 was used to assess healthcare seeking behavior.

Results:
Telehealth users were more likely to be women under the age of 60, with higher morbidity levels compared to non-users ($p<0.001$). However, there were no statistically significant differences between the two groups in terms of socioeconomic status, measured by the Care Need Index. Healthcare seeking behavior, as indicated by health record entries, was higher among users compared to non-users.

Conclusions:
Our findings suggest that telehealth users are more likely to be women and younger than 60 years, with higher healthcare needs. Despite this, no significant differences in socioeconomic status were found between users and non-users. These findings highlight that telehealth adoption in primary care may not be influenced by socioeconomic status, and users tend to have higher healthcare utilization and morbidity.

Points for discussion:
How can we ensure broader adoption of telehealth among older adults, who are currently underrepresented?

What strategies can be employed to attract individuals with lower socioeconomic status to use telehealth services?

How can healthcare systems effectively integrate telehealth without exacerbating existing health disparities?

Presentation on 10/05/2025 11:00 in "Poster Session 1: Telehealth" by Pär Eriksson.

Poster / Finished study

Effectiveness of Bariatric Surgery Versus Lifestyle Weight Loss Interventions in Adolescents: A Long-Term Study of Weight Management and Nutrient Levels

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Keywords: Obesity; Adolescents; Bariatric surgery; lifestyle weight loss intervention.

Background:
Obesity in children is a concern in medicine and public health. While bariatric surgeries are considered efficient for weight loss, their long-term effects on health remain debatable.

Research questions:
To compare outcomes of bariatric surgeries vs. traditional lifestyle-based weight loss program among adolescents.

Method:
This is a retrospective comparative study. Data was collected from one healthcare maintenance organization (HMO) in Israel. We followed individuals who underwent bariatric surgery before 18 in 2011-2021 (n=152) and were compared to a group of individuals with obesity and similar features who tried a lifestyle weight loss program (n=126). We collected data about weight, body mass index (BMI), and blood tests (TSH, hemoglobin, vitamin B12, vitamin D, and folic acid levels). We then performed linear mixed models to establish trends and compare between the groups.

Results:
We found the case group's weight and BMI decreased in the two years following surgery, a trend which later plateaus. After surgery, this trend is statistically significant compared to the control group (p-value<0.001). This is reflected in the SDS of BMI and weight, which reduce over time while remaining stable in the control group (p-value<0.001). For hemoglobin levels, which started similarly in both groups, we detected a decrease in the case group over time, becoming statistically significant in the fourth year after surgery. Additionally, we detected a decrease in average vitamin B12 levels between the first and second year, which failed to rise to pre-op levels during the study period.

Conclusions:
We detected a decrease in weight consistent with literature on bariatric surgeries in children. We also detected nutritional trends, with possibly symptomatic consequences, in the years after surgery. They highlight the importance of long-term adherence and managing these patients with changed anatomy and physiology as they reach adulthood.

Points for discussion:
Bariatric surgeries in adolescents - pros vs. cons?

Long term outcomes of bariatric surgeries

Presentation on 10/05/2025 11:00 in "Poster Session 2: Chronic Conditions" by Ilan Yehoshua.

Poster / Published

Feasibility of a noninvasive heart failure telemonitoring system: A mixed methods study

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Keywords: heart failure, telemonitoring, telemetry, remote patient monitoring, telemedicine, feasibility study, mixed methods

Background:
Heart failure is a global health problem with an increasing prevalence and burden to patients and healthcare systems. It affects especially older people with multimorbidity. Noninvasive telemonitoring might reduce mortality and heart failure hospitalizations. Feasibility is an important factor regarding patients' adherence to and the success of implementing telemonitoring programs.

Research questions:
We aimed to examine the feasibility of a noninvasive telemonitoring system used by heart failure patients and nurses in two Heart Hospital units and one health center in Finland.

Method:
This cross-sectional observational study used a mixed methods design. Quantitative data were collected with one self-generated questionnaire for patients, and qualitative data were collected with a questionnaire for patients and semi-structured focus group interviews for patients and nurses. The questionnaire was sent to 47 patients in the pilot program of telemonitoring, and 29 patients (61.7 %) responded. Purposefully selected 8 patients and 8 nurses attended the interviews. We used descriptive statistics to assess the quantitative data from the questionnaire and inductive thematic analysis to identify themes deriving from the focus group interviews. We categorized the themes into facilitators and barriers to telemonitoring.

Results:
Both the quantitative and qualitative data show that the telemonitoring system is easy to use, supports self-care and self-monitoring, and increases the feeling of safety. The system's chat tool facilitated communication between patients and nurses. The participants considered the system reliable despite some technical problems. The focus group interviews addressed technical challenges, nurses' increased workload, and patients' engagement with daily follow-up as possible barriers to telemonitoring.

Conclusions:
The studied noninvasive heart failure telemonitoring system is feasible. It seems suitable for monitoring heart failure patients also in primary care. We found facilitators and barriers to telemonitoring that should be considered when developing and expanding the noninvasive telemonitoring of heart failure in the future.

Points for discussion:
The importance of asynchronous communication (chat tool) for patients and nurses.

Telemonitoring increases the feeling of safety -> less contacts to healthcare?

Telemonitoring requires engagement with daily follow-up -> treatment fatigue?

Presentation on 10/05/2025 11:00 in "Poster Session 2: Chronic Conditions" by Teemu Ekola.

Poster / Ongoing study with preliminary results

Mapping post-acute COVID syndrome in Europe: Data and Guidelines in primary health care across 30 Countries

Raquel Gomez Bravo, Sandra León-Herrera, Ileana Gefaell, Marina Guisado-Clavero, Limor Adler, Maria Bakola, Sabine Bayen, Thomas Beaney, Sherihane Bensemmane, Elena Brutskaya-Stempkovskaya, Nicola Buono, Jako Burgers, Iliana-Carmen Busneag, Daniel Croucher, Maryher Delphin Peña, Philippe-Richard Domeyer, Marina Dotsenko, Sabine Feldmane, Louise Fitzgerald, Marta Fournier, Thomas Frese, Dragan Gjorgjievski, Miroslav Hanževački, Bruno Heleno, Kathryn Hoffmann, Oksana Ilkov, Ivanna Shushman, Gabriele Kerr, Erva Ücüncü, Alexander Kirkovski, Snežana Knežević, Büsra Çimen Kork, Milena Kostić, Anna Krztoń-Królewiecka, Liga Kozlovska, Heidrun Lingner, Pekka Mäntyselkä, Tatjana Meister, Sarah Moreels, Achim Mortsiefer, Liubovė Murauskienė, Katarzyna Nessler, Ana Luisa Neves, Naldy Parodi López, Ábel Perjés, Davorina Petek, Ferdinando Petrazzuoli, Xenia Wöstmann, Anna Repovská, Martin Sattler, Anna Segernäs, Theresa Sentker, Aleksander Stepanović, Kadri Suija, Gunta Ticmane, Péter Torzsa, Francesca Vassallo La Ferla, Shlomo Vinker, Sara Ares Blanco, María Pilar Astier Peña

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Keywords: post-acute COVID-19 syndrome, Primary Care, Prevalence, diagnosis, signs and symptoms, physical examination.

Background:
The prevalence of post-acute Covid syndrome or long COVID (LC) across Europe remains unknown, including those in Primary health care (PHC). Additionally, guidelines for the diagnosis and management of LC are still under development.

Research questions:
What is the prevalence of LC in Europe and within PHC? How many official guidelines for LC exist across Europe? How consistent are these guidelines regarding long COVID symptoms and recommendations for physical examinations?

Method:
This descriptive, cross-sectional, retrospective study collected qualitative data through a semi-structured questionnaire to assess LC prevalence and LC guidelines across PHC in 30 European countries. The main variables were LC prevalence and pathways in PHC. All variables were collected between May and September 2024.

Results:
Among 30 countries, seven (Belgium, Finland, France, the Netherlands, Sweden, Spain, and the United Kingdom) reported LC data, but only three provided updated information. Finland and Spain included data specific to PHC. Based on available data, approximately 4.5 million LC patients were identified in these countries.

National guidelines for LC were identified in 16 countries. The most commonly reported symptoms across these guidelines included fatigue, dyspnoea, and brain fog (94%), followed by cough and chest pain (89%). Additional symptoms included headache, depression, anxiety, joint or muscle pain, and changes in smell or taste (84%) and sleep disturbances, dizziness, palpitations (78%) and neurological symptoms (73%).

Recommended physical examinations included oxygen saturation and heart rate (81%), blood pressure measurement (75%), respiratory rate (68%), and temperature (66%), lung and heart auscultation (62%), abdominal palpation and neurological examination (56%), and musculoskeletal assessments (31%).

Conclusions:
There are 4.5 million LC patients across seven countries. Sixteen national guidelines show strong concordance regarding symptoms, but less agreement on recommended physical examinations.

Points for discussion:
How can we improve the collection of LC data?

What evidence is needed to improve LC guidelines?

Presentation on 10/05/2025 11:00 in "Poster Session 2: Chronic Conditions" by Raquel Gomez Bravo.

Poster / Finished study

Monitoring in Chronic Diseases (ChroMo): a scoping review of evaluation methods

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Keywords: Monitoring, chronic diseases, chronic conditions, evaluation methods, methodology

Background:
Monitoring includes repeated examinations to manage treatment of a chronic disease. It offers the opportunity to react to treatment responses and to changes of a condition at an early stage. Monitoring routines have often developed historically and consist of multiple tests with testing intervals following convention rather than being evidence-based. While randomized controlled trials are the gold standard for providing evidence, these might be difficult and costly to complete for the evaluation of monitoring routines.

Research questions:
Which methodological approaches should be used to evaluate monitoring routines in people with chronic conditions?

Method:
A scoping review was completed. Included were topic-related articles, books and book chapters; criteria for monitoring or monitoring programs; evidence reviews. The search was completed in Medline and Embase. Reference lists of identified literature were searched to identify publications. The search combined the keywords ‘monitoring’, ‘chronic conditions’ and ‘evaluation’ and respective equivalent terms. We extracted methodological strategies regarding the evaluation of monitoring routines. A narrative synthesis was completed.

Results:
We identified three peer-reviewed articles and one book chapter. These were synthesized into eight key questions that an evaluation would need to answer: 1) When is monitoring reasonable? 2) What outcome should be monitored? 3) Who should be monitored? 4) Which monitoring test(s) should be used? 5) What is the appropriate target range for test results? 6) When and at which intervals should monitoring take place? 7) Who should complete the monitoring routine? 8) What actions will follow the monitoring results? Furthermore, the findings indicated that cohort studies and routine data analyses might provide an alternative to randomized controlled trials, although these might be prone to bias.

Conclusions:
There is a lack of methodological research strategies to evaluate monitoring routines demonstrating the need for the development of feasible strategies to provide the evidence for monitoring routines.

Points for discussion:
Which methods might be considered valuate to evaluate monitoring routines?

Are there new digital data collection methods that could support the evaluation?

Which monitoring routines should be prioritized for evaluation?

Presentation on 10/05/2025 11:00 in "Poster Session 2: Chronic Conditions" by Veronika Van Der Wardt.

Poster / Almost finished study

Multiple chronic conditions and cognitive performance: a 5-year longitudinal study of patients aged 55-75 years at baseline

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Keywords: Multiple chronic conditions, Chronic diseases, Neuropsychological Tests, Cognitive Dysfunction, Latent class analysis

Background:
The aging population worldwide presents significant health challenges, particularly regarding cognitive function in older adults. Chronic diseases are prevalent in this group and may adversely affect cognitive performance.

Research questions:
Is there a relationship between the different clusters of chronic diseases and cognitive performance?

Method:
Study design: A 5-year longitudinal cohort study. Population: 930 Spanish patients aged 55-75 years from the NEDICES2-RISK cohort. Variables: sociodemographic (sex, age, educational level), 21 chronic diseases diagnosed in Primary Health Care. Cognitive performance—including global cognition, memory, premorbid intelligence, verbal fluency, and visuoconstruction—was assessed at baseline and follow-up using neuropsychological tests. Data collection: Clinical interview and medical history review. Analysis: Latent class analysis (LCA) was conducted to identify subgroups of chronic diseases. A generalised linear model was employed to analyse the influence of these subgroups on cognitive performance, adjusted for age, sex, educational level, sedentary lifestyle, and smoking.

Results:
The study included 930 participants. The median age was 67 (IQR: 62.00–71.0) years, and 52.4% were women. LCA revealed a three-cluster model as the best fit solution: non-diseased, depression-anxiety cluster, and cardiovascular diseases. At baseline, neuropsychological scores did not differ significantly across clusters. After 5 years, participants in the depression-anxiety cluster exhibited significantly worse global cognition on the 37-item version of the Mini-Mental State Examination (MMSE-37) (OR 2.05; 95% CI 1.12–3.76) and immediate memory (OR 1.96; 95% CI 1.07–3.59) compared to the non-diseased group.

Conclusions:
Whilst baseline cognitive performance was similar across groups, participants in the depression cluster experienced significant declines in global cognition and memory after 5 years compared to the non-diseased group.

Points for discussion:
This study is part of a 5 year follow up cohort, taking that into account, what should we recommend in the Primary Care setting to avoid future cognitive impairment?

How should patients with depression and anxiety be intervened?

Much emphasis is currently placed on cardiovascular risk factors as key predictors of cognitive decline. But are we underestimating the impact of mental illnesses such as depression and anxiety on cognitive function?

Presentation on 10/05/2025 11:00 in "Poster Session 2: Chronic Conditions" by Javier Rubio Serrano.

Poster / Finished study

Self-efficacy in hypertension management using e-Health technology: a randomized controlled trial in primary care

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Keywords: e-Health, hypertension, person-centered care, primary healthcare, self-efficacy

Background:
Hypertension is the leading reason for all-cause mortality worldwide and successful treatment requires a lifelong commitment from the patient. A person-centered approach to health care increases the patient's aptitude for self-management. Self-efficacy, the belief in your own ability to complete a task, is a concept tightly intertwined with person-centered care and correlates with engaging in self-care behaviors, an important part of hypertension treatment. Evidence indicates that e-Health-based self-management interventions could increase self-efficacy.

Research questions:
The objectives of this study were to investigate whether an intervention with a person-centered approach supported by e-Health technology can impact self-efficacy. Furthermore, to examine the impact of self-efficacy on hypertension management, and assess if self-efficacy can indicate which patients might see the greatest improvement on blood pressure from an e-Health-based self-management intervention for hypertension.

Method:
This multicenter randomized controlled trial included 949 primary healthcare patients with hypertension. After exclusions, data was analyzed for 862 patients. The intervention group used an e-Health-based self-management system for eight weeks. Self-efficacy was measured with the general self-efficacy (GSE) scale at inclusion, 8-week follow-up and 1-year follow-up.

Results:
A significant increase in the mean GSE score in the intervention group was identified (p 0.042). No significant association between self-efficacy and blood pressure control was found. GSE scores did not significantly differ between the patients that had the best effect on blood pressure and those that had none.

Conclusions:
This study showed a significant increase in self-efficacy after the intervention. Self-management-based e-Health interventions might have a role in clinical practice to increase self-efficacy and improve general health. We found no association between self-efficacy and achieving a blood pressure below 140/90. Furthermore, no support was found to claim that self-efficacy would be an indicator of which patients might have the greatest effect from a self-management-based e-Health intervention for hypertension.

Points for discussion:
The increase in GSE score from the intervention, although significant, is limited in scope.

The small size of the increase in GSE score from the intervention might be due to the ceiling effect, high baseline values leaves less room for improvement

Should GSE score be used in order to provide individualized treatment of patients in primary care?

Presentation on 10/05/2025 11:00 in "Poster Session 2: Chronic Conditions" by Rasmus Hermansson-Borrebaeck.

Poster / Finished study

Assessment of Neurocognitive Disorder in Primary care - Evaluating the usefulness of a digital cognitive test in clinical practice.

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Keywords: Mild cognitive impairment, Neurocognitive disorder, Alzheimer's disease, Cognitive testing, Digital Health Technology

Background:
Primary care is crucial for identifying mild cognitive impairment (MCI) and early Alzheimer's Disease (MCI-AD). Objective cognitive assessments are essential for diagnosing MCI, corroborating symptoms, assessing level of impairment, and distinguishing MCI from other conditions. However, primary care settings need more suitable tools for initial evaluations.

Research questions:
This study evaluates the clinical usability of digital cognitive testing in primary care neurocognitive investigations, focusing on test accuracy and experiences of patients and clinicians (occupational therapists; OTs).

Method:
The final sample includes 77 participants with the diagnoses: 26 subjective cognitive impairment (SCI), 28 MCI, and 23 Dementia. Cognitive tests were self-administered on the Mindmore platform and supervised by OTs. Results are compared between patient groups and normative data. Experiences were collected via hybrid surveys.

Results:
Differences between patient groups were observed in all five cognitive domains tested: Memory, Attention and processing speed, Executive functions, Visuospatial functions, and Language. The most significant differences were observed in the Memory domain. SCI group results were within one standard deviation (SD) below the norms, Dementia group results were around two SD below, and MCI group results fell between the SCI and Dementia groups.
The patients´ experience were mainly positive, with clear instructions, right level of test difficulty, and minimal stress. A digital pen was suggested for easier tablet interaction. OTs perceived the tests as reliable, but noted that many patients needed assistance, either in interacting with the tablet or with understanding or remembering test instructions.

Conclusions:
Self-administered digital cognitive tests show promising usability in this primary care. This approach could enhance the accuracy of neurocognitive investigations with minimal clinician burden, even if supervision is recommended for most patients. This could be one potential step in preparing primary care for the increased demand for neurocognitive investigations due to new early AD treatments.

Points for discussion:
What are the opportunities and barriers for the use of digital cognitive tests in neurocognitive assessments in primary care?

How will primary care be affected by the introduction of new disease-modifying treatments for Alzheimer´s disease ahead?

How should we address the utility of self-administered digital testing in an aging population with a need for professional observation and intervention to obtain reliable test results?

Presentation on 10/05/2025 11:00 in "Poster Session 3: Mental Health" by Anna Segernäs.

Poster / Finished study

Effect of “Diaphragmatic Breathing Exercises” on Functional Constipation, Anxiety and Depression

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Keywords: Functional constipation, constipation, diaphragmatic breathing, belly breathing, anxiety, depression

Background:
Chronic constipation is one of the most common gastrointestinal disorders worldwide. Therefore, it is important to make the accurate diagnosis according to internationally accepted criteria and evaluate each patient individually for a proper treatment. Adjusting the diet, fiber supplementation and laxatives are the most common treatment methods. However, there are limited number of studies which suggest that diaphragmatic breathing exercises are also effective on chronic constipation problem.

Research questions:
Do diaphragmatic breathing exercises have any effect on chronic constipation disorder (functional constipation or constipation dominant irritable bowel
syndrome)?

Method:
This is a mixed type study in which a clinical trial follows a cross-sectional descriptive research. In the first part, “Diagnostic Questionnaire for Constipation”(DQC) derived from Rome IV Functional Constipation Criteria, applied to 375 students studying at faculties of Marmara University Health Campus. Among all 101 participants were defined to have constipation. Those who have consent to attend the diaphragmatic breathing sessions in
small groups, either face-to-face or via an online meeting in a 3-week period were 31 individuals. To evaluate severity of constipation, Turkish version of Constipation Assessment Scale (CAS) which has a total score of 16 was used in which higher score means higher severity of constipation “Anxiety Symptoms Questionnaire” (ASQ) and “Depression Risk Questionnaire” (DRQ) were also applied.

Results:
The median of the CAS total score was 6, 3 and 2 at baseline, on the third and 19 th weeks of follow up consequently. (p<0,001). The median of the ASQ total score was 64 at baseline, 35 at third week and 34 at 19 th week (p<0,001, p=0,006). According to DRQ results, depression risks were found significantly lower at 19 th week than it was at the baseline (p=0,047).

Conclusions:
Our results show that diaphragmatic breathing exercises have a statistically significant effect on relieving constipation, improving anxiety symptoms and lowering depression risks.

Points for discussion:
Do you have learning relaxation techniques such as "breathing exercises" in your residency curriculum?

What kind of analysis can be added to this study to discuss more about the effects of diaphragmatic breathing exercises on quality of life?

Presentation on 10/05/2025 11:00 in "Poster Session 3: Mental Health" by Çigdem Ölke.

Poster / Finished study

Evaluating Health Related Quality of Life and Health Anxiety in Patients Attending a Family Medicine Outpatient Clinic

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Keywords: mental health, physical health, health anxiety, quality of life

Background:
Health anxiety defines individuals' concern about their health or the fear of having a serious illness. Health-related quality of life (HRQOL) is related to the perceived well-being and functional level in the physical, mental, domains of life on health. Health anxiety may interfere with health related quality of life.

Research questions:
1.What is the the impact of sociodemographic features on HRQOL and health anxiety?
2.Is there an association between health anxiety levels and the perceived HRQOL of individuals ?

Method:
This is a cross-sectional study conducted with participants >18 years of age who have applied to the Family Medicine outpatient clinics. Health Anxiety Inventory (HAI) was used to determine the health-related anxiety levels of the participants, and the Health Related Quality of Life Scale-Short Form (SF-12) was used to evaluate the health-related quality of life. Sociodemographic characteristics, and health-related history were recorded via a questionnaire form. Data was analyzed by a statistical programme.

Results:
A total of 158 participants were included, the mean age was 39±12.9, 70.3% were women, 42.4% had a job, 42.4% had chronic diseases. HAI scores were higher and SF-12 physical scores were lower in women, in those who were not working, having lower education level, and living with a chronic disease while SF-12 mental health scores were not different. SF-12 mental and physical dimension scores correlated with total HAI ($p<0.001$). As hospital visits increased HAI increased and SF-12 physical scores decreased.

Conclusions:
Health anxiety is associated with both mental and physical dimensions of HRQOL. Sociodemographic features and living with chronic diseases are associated with HRQOL related to physical health. Health anxiety interferes with hospital admissions and health care services utilization. A holistic approach should be adopted for individuals experiencing health anxiety, with particular emphasis on vulnerable groups.

Points for discussion:
How medical professionals can manage health anxiety in specific patient groups?

Presentation on 10/05/2025 11:00 in "Poster Session 3: Mental Health" by Didem Kafadar.

Poster / Finished study

How alcohol-dependent patients feel about the effect of a period of sick leave on their alcohol consumption

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Keywords: Substance use disorder ; sick leave : alcohol

Background:
Alcohol consumption is prevalent and is an integral part of the social landscape. Previous studies have pointed out that alcohol consumption could be influenced by an individual's socio-professional context. But what about during sick leave period ?

Research questions:
The aim of this study was to explore the experiences of alcohol-addicted patients during a period of sick leave.

Method:
Qualitative study with an analysis inspired by interpretative phenomenology based on semi-directed interviews with patients in a treatment center for alcohol addiction.

Results:
Ten interviews were carried out. A social vulnerability pre-existing the sick leave and the presence of alcohol to relieve a feeling of loneliness associated with professional discomfort were found in the patients' speech. During the sick leave, individuals felt an initial relief related to the reduction of work stress. However, discomfort will gradually set in due to inactivity, loss of social value and isolation. Alcohol is used by the participants to cope with this discomfort. Faced with an increase in their consumption, they became aware of the need to consider a change in their lifestyle and to start treatment. Sick leave was an opportunity to discuss alcohol with the doctor as a first step towards recovery. Some of the participants extended their sick leave to enter an alcohol treatment center. The others went back to work as they felt guilty not working. Going back to work worsened the discomfort, requiring further sick leave ultimately leading to entering an alcohol treatment center.

Conclusions:
Sick leave can be a source of relief but also of tension for individuals, leading to an increase in their alcohol consumption as a response to discomfort.

Points for discussion:
How do we think about assessing the risk of substance-related disorders in our patients during a period of sick leave?

Can telemonitoring be used to support patients on sick leave, and in particular improve the early screening of addictions?

Presentation on 10/05/2025 11:00 in "Poster Session 3: Mental Health" by Maxime Pautrat.

Poster / Finished study

Screening and Counselling For Intimate Partner Violence in Primary Care: A Systematic Review

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Keywords: Intimate Partner Violence ; Primary Care ; Women ; Couselling

Background:
1 in 3 women worldwide is a victim of physical and/or sexual violence during her lifetime, most often inflicted by an intimate partner. Violence between intimate partners evolves cyclically and becomes progressively more intense if nothing is done to stop it. The physical and mental consequences are significant, and all social categories are affected. The literature on screening is extensive, but that on post-screening interventions much less so.

Research questions:
This study aim was to identify available counselling program to help IPV victim whose effectiveness has been evaluated in primary care.

Method:
Systematic review of articles published since September 2003 up to December 2023 searching through 3 databases: Medline via Pubmed, PsycInfo, and Central via Cochrane Library. Research equation elaborated using a combination of four research topics: women patients, intimate partner violence, counselling, and primary care setting.

Results:
3017 articles were selected by our search strategy, 7 studies were finally included. 6 interventions format was described as brief counselling based on the Psychosocial Readiness Model (significant effectiveness on depression), March of Dimes protocol which includes a brochure with a 15-item safety plan to increase adoption of safety behaviors (efficiency in decreasing threats of abuse), or psychoeducational intervention. 4 mains evaluation criteria were
founded as clinical score focused on mental health or quality of life.

Conclusions:
These results bring to light the usefulness to integrate in primary care some screening on IPV, followed by some counselling intervention which may take various form, usually of short duration. A model inspired by the SBIRT (Screening, Brief Intervention, and Referral to Treatment) in the addictology field could be an approach for futures investigations.

Points for discussion:
Parallels between addictology and intimate partner violence

Suggestion of brief intervention

Presentation on 10/05/2025 11:00 in "Poster Session 3: Mental Health" by Emeline Pasdeloup.

Poster / Published

The influence of organizational models on the implementation of internet-based cognitive behavior therapy in primary care: A mixed methods study using the RE-AIM framework

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Keywords: Digitalization in Healthcare, Organizational Models, Internet-Based Cognitive Behavior Therapy (iCBT), Primary Care Implementation, RE-AIM Framework

Background:
Internet-Based Cognitive Behavioral Therapy (iCBT) holds great potential for addressing mental health issues, yet its real-world implementation presents significant challenges. While previous research has predominantly focused on centralized care models, this study examines the implementation of iCBT within decentralized organizational structures in the Swedish primary care setting, where all interventions are traditionally delivered at local Primary Care Centers (PCCs).

Research questions:
This study aims to enhance our understanding of iCBT implementation in primary care and assess the impact of organizational models on the implementation's outcome.

Method:
A mixed-methods research design was employed to identify the factors influencing iCBT implementation across different levels, involving patients, therapists and managers. Data spanning two years was collected and analyzed through thematic analysis and statistical tests. The study encompassed 104 PCC, with patient data (n = 1979) sourced from the Swedish National Quality Register for Internet-Based Psychological Treatment (SibeR). Additionally, 53 iCBT therapists and 50 PCC managers completed the Normalization Measure Development Questionnaire, and 15 leaders participated in interviews.

Results:
Two implementation approaches were identified, one concentrated and one decentralized. Implementation effectiveness was evident suggesting that iCBT is a promising approach for treating mental ill-health in primary care, although challenges were observed concerning patient assessment and therapist drift towards unstructured treatment. Mandatory implementation, along with managerial and organizational support, positively impacted adoption. Results vary in terms of adherence to established protocols, with therapists working in concentrated model showing a significantly higher percentage of registration in the quality register SibeR.

Conclusions:
This study contributes to the understanding of the practical aspects associated with the implementation of complex internet interventions. The study highlights that effective iCBT integration into primary care requires a multifaceted approach. By emphasizing these factors, our research aims to provide actionable insights that can enhance the practicability and real-world applicability of implementing iCBT in primary care settings.

Points for discussion:
The importance of organization of internetbased interventions for sustainable implementation

Presentation on 10/05/2025 11:00 in "Poster Session 3: Mental Health" by Elisabet Gervind.

Poster / Finished study

Analysis of Child Maltreatment in Overweight / Obese Children

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Keywords: overweight, obesity, maltreatment, children

Background:
Child maltreatment is a global problem. Neglect is the most common type of child maltreatment and is caregiver failure to meet basic nutritional, medical, educational, and emotional needs of a child. Maltreatment can be triggered by caregivers with inadequate resources interacting with a vulnerable child.

Research questions:
To verify the risk factors of the maltreatment in overweight / obese children.

Method:
Analysis of child maltreatment were identified by survey and anonymous questioning of 328 overweight children, 364 obese children, and 256 control children, and their parents (1286). Statistical processing of the received data was performed using programs Excel 2010, Statistika 10.

Results:
We identified the most significant socio-economic, family and personal factors.
The significance of socio-economic factors has been detected for poverty (OR in overweight girls was 1.95 (95% CI 1.05–3.64%), in obese girls – 3.66 (95% CI 2.03–6.58%), in overweight boys – 1.48 (95% CI 0.80–2.71%), in obese boys – 2.76 (95% CI 1.55–4.90%)) and isolation (OR in obese girls was 5.84 (95% CI 2.67–12.75%), in obese boys – 6.57 (95% CI 2.86–15.12%)). The unemployment, unsatisfactory living condition, and insufficient social support had no statistically significant differences.
The significance of family factors has been established for incomplete families (OR in overweight girls was 2.60 (95% CI 1.60–4.22%), in obese girls – 3.71 (95% CI 2.30–5.96%), for boys, no statistical difference was found), conflictive families, high workload of parents, low educational level. The drug/alcohol addictions and mental illness of parents, the violence during childhood had no statistical differences in overweight / obese children.
Among personal factors, the significance of inflated expectations from the child was revealed only in obese children.

Conclusions:
The obtained data testify that overweight / obese children are at risk of child maltreatment and need close monitoring and cure to prevent their potential vulnerability to violence, stigma and social isolation.

Points for discussion:
Maltreatment in vulnerable children (children with overweight / obesity)

Presentation on 10/05/2025 11:00 in "Poster Session 4: Prevention and Life Style" by Yuliia Tsyunchyk.

Poster / Almost finished study

Challenges of managing alcohol use related driving license legislation when using B-Phosphatidylethanol in primary care

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Keywords: Alcohol Misuse, Alcohol Use Disorder, Automobile Driving, Phosphatidylethanol, Primary Health Care, Qualitative Research

Background:
General practitioners (GPs) have conflicting duties when managing harmful alcohol use: to identify and treat alcohol use related problems but also to report driving unfitness caused by alcohol use disorder. B-Phosphatidylethanol (PEth), a specific biomarker for alcohol intake, is perceived as a useful tool but the clinical implementation is slow and inconsistent. To our knowledge, no previous studies have explored how GPs manage driving license legislation in relation to PEth testing.

Research questions:
How do GPs perceive and manage the legal duty to report unfit drivers when using PEth-tests in Swedish primary health care (PHC)?

Method:
Individual, semi-structured interviews with GPs (n 12) and resident GPs (n 8) were conducted. Participants were recruited from PHC (n 10) units with different patterns of PEth utilization. Interviews were transcribed verbatim and analyzed using qualitative content analysis. The study was approved by the Swedish Ethical Review Authority (Dnr. 2023-04452-01).

Results:
GPs reported difficulties interpreting the driving license legislation and conducting assessments of fitness to drive when PEth test results indicated high alcohol use. They balanced between the duty to report unfit drivers and simultaneously maintain a therapeutical physician-patient relationship. Existing guidelines were not perceived useful and diverse strategies emerged. Some GPs refrained from using PEth testing, or from reporting, while others standardized the management, or used the obligation to report as a motivator for patients to reduce their alcohol intake.

Conclusions:
The results reveal difficulties in complying with the legal duty to report unfit drivers as one of the factors hampering the clinical implementation of PEth in PHC. Since systematic use of PEth could improve early detection of harmful alcohol use, the perceived difficulties can be interpreted as an unintended consequence of this legislation. Clearer guidance on the interpretation of the driving license legislation and the clinical use of PEth is necessary and asked for by the participants.

Points for discussion:
What does driving license legislation in relation to PEth testing state in different countries?

How can PEth be used to increase detection and treatment of harmful alcohol use?

How can policy be improved to facilitate both reporting of unfit drivers and healthcare for patients with harmful alcohol use?

Presentation on 10/05/2025 11:00 in "Poster Session 4: Prevention and Life Style" by Åsa Steensland.

Poster / Ongoing study with preliminary results

Evaluation of the counseling concept “Positive Health” in primary care. An explorative investigation of video-documented conversations using the Rating Inventory of solution-oriented Interventions (RLI).

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Background:
Positive Health is a counseling concept developed by Dutch GPs that focuses less on diseases and more on the patients' existing resources in order to make possible courses of action visible and strengthen the motivation for change. Based on a simple tool (spider web with six health-related dimensions) patients can reflect on their own health first, which than provides the basis for a dialogue between patient and doctor. There is no evidence how these dialogues can be implemented in primary care in Germany.

Research questions:
The aim of the study is to examine the content and structure of the "Positive Health" conversation and how it differs from usual consultations. This study is part of a research program to develop better health-promoting interventions in primary care.

Method:
The study is designed as explorative study. Positive Health consultations are video recorded and the film material is analyzed using the rating inventory of solution-oriented interventions (RLI). The GP is main subject of analysis, but both, GP and patient, will be recorded in order to analyze the interaction between the two of them. Two consultations are planned with a maximum duration of 30 minutes. After coding, the conversation characteristics will be compared in terms of their frequency and characteristics. Furthermore, conversation elements will be grouped into different clusters in order to compare patterns of the conversations.

Results:
This is an ongoing study. As to this date 4 GPs support the study and 6 consulting conversations have been recorded on camera in a duration of maximum 30 minutes each. Further results will be presented at the conference.

Conclusions:
Before new consulting concepts are introduced into practice, the potential benefits and feasibility should be examined. This study contributes to answering the question of whether and with which adaptations the Positive Health approach could be implemented in Germany.

Points for discussion:
1. What experience do you have with video analysis of consultations and which evaluation methods are suitable in your opinion?

2. Based on your experience, which methods do you recommend to investigate the benefits and feasibility of health-promoting interventions in primary care?

Presentation on 10/05/2025 11:00 in "Poster Session 4: Prevention and Life Style" by Natalie Seuken.

Poster / Ongoing study with preliminary results

Preliminary results from an interview study with parents about childhood vaccination

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Keywords: vaccine hesitancy, measles, pediatrics, general practice

Background:
Vaccine hesitancy, the state of being reluctant to or refuse vaccination despite a good availability of vaccines, was declared by the World Health Organization (WHO) in in 2019 as being one of the top ten threats to global health. In the northeastern suburbs of Gothenburg, coverage rates for the measles, mumps and rubella (MMR) vaccine among 2-year old has fallen from 95% in 2017 to 88% in 2023.

Research questions:
What are the views of parents living in these suburbs, concerning childhood vaccination?

Method:
In an ongoing study, parents of children aged 2 to 6 years are recruited for interviews at Children's Healthcare Centres (BVCs) in northeastern Gothenburg. Recruitment is based on BVC specialist nurses' personal knowledge of parents. The main exclusion criterion is an insufficient language level (no interpreters are used). Interviews follow a semi-structured course and some of the questions posed are "How do you think parents who refuse to vaccinate reason", "Which sources of knowledge do you think parents trust?" and "What do you think a BVC specialist nurse should do if someone doesn't want to vaccinate their child"? Interviews are audio-taped. The study is situated within a WHO tailoring immunization programme (TIP).

Results:
Since interviews started in January 2024, 13 parents have contributed data, of which 7 fathers and 6 mothers, having their (self-declared) origin mostly in the WHO Eastern Mediterranean and European regions. All of the interviewees own children have got the MMR vaccine, but the parents are nevertheless aware of the discourse concerning vaccine pros and cons, the latter being chiefly a fear of autism as a side-effect. Parents sometimes harbour considerable doubt about the vaccine in spite of their decision to vaccinate.

Conclusions:
Vaccine hesitancy is a complex phenomenon, where parents' views are crucial for gaining insights into its underlying factors.

Points for discussion:
How to recruit those parents who refuse to vaccinate?

Advantages and disadvantages of not using interpreters?

How to know when interview "saturation" is achieved?

Presentation on 10/05/2025 11:00 in "Poster Session 4: Prevention and Life Style" by Staffan Svensson.

Poster / Ongoing study with preliminary results

Sleeping Safe and Sound

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Keywords: digital self-help, public health, primary care, insomnia, hypnotic medication

Background:
Insomnia, the most common sleep disorder worldwide, has seen a sharp increase in incidence, especially during COVID-19. In Belgium, adult insomnia rates increased from 30% to 71%, accompanied by an increase in the use of hypnotics and sedatives (benzodiazepine receptor agonists, BZRA) from 13% to 21%. Although cognitive behavioural therapy for insomnia (CBT-I) is the recommended first-line treatment, barriers such as high cost, time commitment and access to CBT-I result in pharmacotherapy being commonly used. Digital CBT-I is emerging as a scalable, effective solution.

Research questions:
Primary objective is to develop a digital self-help addressing insomnia and BZRA use in collaboration with the end-users.

Method:
A participatory research project with three phases. First, the project is focused on the development of the platform, and evaluating its usability. The second phase will focus on testing its feasibility and acceptability. And in the third phase, we will create a validated implementation plan.

For the first phase, carousel workshops were organised with 3 stops: card sorting of platform content and functionalities, brainstorming about additional features, and discussion of specific design issues using the map-it toolkit. Healthy adults (18+) concerned by insomnia (including self-diagnosis) or the use of hypnotics, residing in Belgium, were eligible for participation. Field notes from these sessions were thematically analysed by two independent researchers.

Results:
Six carousel workshops were conducted, with in total 28 volunteers. Seven themes were identified: (i) Information requirements: language, layout and missing information; (ii) Gamification for motivating recurrent use; (iii) Reassurance through community, peer support and acute help upon lying awake; (iv) An overall accessible platform; (v) Personalisation in terms of co-morbidity, data tracking and tailored advice; (vi) Design: colours and logo; (vii) Safety: data privacy and moderation of the community.

Conclusions:
Our findings highlight the importance of an evidence-based, accessible platform that feels personal and can provide (peer) support.

Presentation on 10/05/2025 11:00 in "Poster Session 4: Prevention and Life Style" by Kristien Coteur.

Poster / Study Proposal / Idea

What factors influence General Practitioners' participation in the colorectal cancer screening programme, and what can be done to increase uptake? Protocol for a mixed methods study.

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Keywords: General practitioners, Faecal immunochemical test, Colorectal cancer screening, Early detection of cancer.

Background:
Colorectal cancer (CRC), the third commonest cancer and the second leading cause of cancer death worldwide, is an attractive target for population screening. The faecal immunochemical test (FIT) has become widely used in CRC screening.
FIT was launched in Latvia in October 2019, taking over from the guaiac test, with General Practitioners (GPs) having to distribute it. Population uptake, although increasing, is poor (25% in 2023), and well below the 45% target recommended in the European guidelines. Research has shown that mailing patients a FIT gives a higher uptake than encouraging patients to collect them from their GPs.

Research questions:
What factors influence GPs' participation in the colorectal cancer screening programme, and what are their views on how the uptake can be increased?

Method:
A mixed methods, cross-sectional study, using an online questionnaire for data collection. This will include multiple-choice questions, Likert-scale questions, and open-ended questions asking respondents to share their views on colorectal cancer screening
The study will take place in Latvia, through email distribution of the anonymous questionnaire to all GPs belonging to the organisation of family doctors. We will invite researchers from other European countries to collaborate by collecting data in their own countries.

Results:
We will present the study protocol and the results of the pilot study.

Conclusions:
Knowledge of the factors that influence family doctors' participation in CRC screening will help us to create strategies to increase uptake.

Points for discussion:
How do you think the uptake of colorectal cancer screening in your country could be improved?

Or, if there is already good uptake in your country, what do you think makes it so successful?

If this research would be useful in your country, are you be interested in collaborating with us?

Presentation on 10/05/2025 11:00 in "Poster Session 4: Prevention and Life Style" by Jelena Danilenko.

Poster / Ongoing study with preliminary results

Alarming signs in patients with higher FRAX score

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Keywords: osteoporosis, FRAX, screening

Background:
Osteoporosis (OP) and resulting fractures are associated with increased mortality. Each year, OP leads to nearly 9 million fractures, and by 2040, more than 319 million people worldwide are projected to be at high risk of osteoporosis-related fractures. FRAX is an effective tool for primary care providers to screen for OP.

Research questions:
The study aims to further characterize patients with high FRAX values and map certain characteristic physiological parameters and comorbidity factors.

Method:
Female patients aged 55-65 (n = 98) of a suburban GP practice in Budapest, Hungary, were enrolled in August 2022. After recording demographic, anthropometric, and anamnestic data and medication habits, we calculated the country-specific FRAX score (https://frax.shef.ac.uk/FRAX/tool.aspx?country=27).

Results:
We compared the values of patients with a higher (2%) FRAX risk of hip fracture with those of low-risk patients. Among patients with high FRAX scores, were more common: the lower BMI ((body mass index) 29.8 kg/m2 vs 23.0 kg/m2 Mann-Whitney U test, $p < 0,001$), bone fractures over 50 years of age (1.2% vs 58.3%, Khi-square test, $X2 (1) = 44.89$, $p < 0,001$), osteoporosis and femoral neck fracture in parents (6.5% vs 42.9%, Khi-square test, $X2 (1) = 12.36$, $p = 0,002$), accidents involving fractures (5% vs 25%, Khi-square test, $X2 (1) = 6.99$, $p = 0,025$.

Conclusions:
In conclusion, we have developed an OP screening program for primary care, in which we have attempted to gather additional information about the high-risk population. With further studies and a larger number of elements, we expect to obtain additional valuable and more precise information about this patient group. The results will allow us to identify at-risk patients earlier and provide more effective treatment and care.

Points for discussion:
Frax score

Pre screening of osteoporosis

High risk patients for osteoporosis

Presentation on 10/05/2025 11:00 in "Poster Session 5: Diagnostic and Prognositic Tools" by Zoltán Lakó-Futó.

Poster / Almost finished study

Improving Arrhythmia Diagnostics in Primary Care: The Potential Role of Artificial Intelligence in ECG Interpretation

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Keywords: Arrhythmia diagnostics, artificial intelligence, electrocardiogram (ECG), primary care, atrial fibrillation

Background:
Algorithm-based ECG interpretations are widely used but frequently misclassify arrhythmias such as atrial fibrillation/flutter (AF), often leading to inappropriate anticoagulant treatment. Recent advancements in artificial intelligence (AI), particularly deep learning and neural networks, show promise for improving ECG interpretation. Telehealth integration further enhances access to AI-assisted diagnostics, addressing geographic barriers in primary care. However, the application of AI in primary care for arrhythmia diagnostics remains underexplored.

Research questions:
Can AI-based tools improve the diagnostic accuracy of atrial fibrillation/flutter (AF) in primary care by reducing misclassifications from algorithm-based ECG systems and enhancing telehealth capabilities?

Method:
This study analyzed 980 ECGs performed in primary care and flagged with an algorithm-generated AF diagnosis (Glasgow ECG analysis program, version 28.5.1). The ECGs were reformatted, photographed, and reanalyzed by the AI tool PMcardio. Expert readers provided a reference standard, identifying 89 false positive AF diagnoses in the initial algorithm-generated dataset.

Results:
PMcardio correctly classified 94% of all ECGs, outperforming the algorithm-based system's 91% accuracy.
It reclassified 84% of false positive AF diagnoses as non-AF. However, PMcardio misclassified 2% of true positive AF diagnoses as non-AF.

Conclusions:
The AI tool PMcardio shows potential for reducing false positive AF diagnoses and inappropriate anticoagulant treatments in primary care.
However, its 2% misclassification rate for true positive AF underscores the need for further studies to validate its diagnostic accuracy before clinical implementation.

Points for discussion:
1. How can AI tools be integrated into primary care workflows to enhance arrhythmia diagnostics?

2. What are the risks of relying on AI-based ECG interpretation, and how can these be mitigated?

3. What is the potential impact of AI-enhanced ECG interpretation on clinical outcomes and patient safety?

Presentation on 10/05/2025 11:00 in "Poster Session 5: Diagnostic and Prognositic Tools" by Hans Thulesius.

Freestanding Paper / Finished study

Knowledge and Approaches of Family Physicians on Chronic Kidney Disease Screening, Diagnosis and Follow-up According to the 2024 Kidney Disease: Improving Global Outcomes (KDIGO) Guidelines

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Keywords: chronic renal disease, primary care, preventive care, practice guideline

Background:
Chronic Kidney Disease (CKD) is frequently asymptomatic in its early stages but progresses to high morbidity and mortality when diagnosed in its later phases. Serum creatinine and urine albumin tests are available in family health centers (FHCs) for screening.

Research questions:
What is the knowledge and approaches of family physicians working in primary care regarding CKD screening, prevention, diagnosis, and treatment in accordance with evidence-based international guidelines?

Method:
This cross-sectional descriptive study was conducted among family physicians employed at FHCs in eight of the most densely populated districts of Istanbul. A sample size representative of this population was calculated and a face-to-face, 51-item questionnaire which was developed on relevant literature and the 2024 Kidney Disease: Improving Global Outcomes (KDIGO) Guidelines was administered through a random sampling from FHCs within each district. Descriptive statistics were presented as percentages, and means. Chi-square tests were used for categorical variables, while T-tests and Mann-Whitney U tests were applied for continuous variables and independent groups. Statistical significance was defined as $p<0.05$.

Results:
Of the 302 participants, 171 were female (56.6%) and 131 were male (43.4%). The mean age was 35±9.96 (min:26, max:66). Among the participants, 58.6% (n=177) were general practitioners while 41.4% (n=125) were family medicine specialists or trainees. It was observed that younger physicians, trainees, and those with ≤3000 registered patients had significantly higher rates of knowledge about the recommended frequency of proteinuria screening in diabetes and hypertension patients ($p=0.01$, $p<0.001$, and $p=0.034$ respectively). Family medicine specialists and full-time residents had significantly higher total scores on the CKD knowledge scale, attitude-approach scale, and KDIGO diagnostic criteria compared to GPs (all $p<0.001$).

Conclusions:
Primary care physicians who are specialist or trainees, younger practitioners and those with fewer registered patients, have more current evidence-based knowledge and approaches regarding the screening, diagnosis and follow-up of CKD to effectively prevent and manage it.

Points for discussion:
Do you have a structured training program in your country about guidelines?

What kind of sources are used for evidence based medicine by general practitioners in your country? Do you have national guidelines?

What is your experience about the problems that make it difficult to use evidence based screening and follow-up of chronic diseases in primary care in your country?

Presentation on 10/05/2025 11:00 in "Poster Session 5: Diagnostic and Prognositic Tools" by Pınar Kocabas.

Poster / Almost finished study

Newly developed anaemia predicts incident cancer and death within 18 months: Findings from 1.1 million patients in the Stockholm Early Detection of Cancer Study (STEADY-CAN) cohort

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Keywords: EarlyCancerDetection Anaemia STEADY-CAN

Background:
Anaemia is a common condition in primary healthcare (PHC) and is frequently associated with existing cancer. Detecting newly developed anaemia may provide an opportunity for earlier cancer diagnosis.

Research questions:
This study aimed to examine the association between newly developed anaemia and incident cancer and mortality in women and men, adjusting for age and comorbidities.

Method:
We conducted a population-based cohort study using data from the Stockholm Early Detection of Cancer Study (STEADY-CAN) in Sweden. Adults aged ≥ 18 years with at least two haemoglobin (Hb) measurements on separate days between January 2011 and June 2020 were included. Newly developed anaemia was defined as Hb < 130 g/L for men and < 120 g/L for women between January 2012 and June 2020, following a prior normal Hb level between January 2011 and June 2020. The primary outcomes were incident cancer and death within 18 months, assessed using competing risks Cox regression models.

Results:
Out of 1,068,622 eligible individuals, 259,019 (24.2%) developed anaemia. Incident cancer within 18 months was diagnosed in 9,726 (3.8%) individuals with anaemia, compared to 5,318 (0.7%) non-anaemic individuals. After adjusting for age and comorbidities, the hazard ratio (HR) for incident cancer was highest in men aged 40–49 years (HR 7.8, 95% confidence interval [CI] 6.47–9.38) and women aged 50–59 years (HR 6.2, 95% CI 5.36–7.06). Moreover, anaemia implied a significantly increased mortality risk, with the highest adjusted HR observed in men aged 50–59 years (HR 8.0, 95% CI 6.71–9.42) and women in the same age group (HR 7.3, 95% CI 5.49–9.67).

Conclusions:
Newly developed anaemia is strongly associated with a higher risk of incident cancer and mortality in both women and men. Clinicians should consider anaemia a potential early marker for cancer, warranting further investigations. Future studies should explore anaemia characteristics and follow-up durations to improve early cancer detection and patient outcomes.

Presentation on 10/05/2025 11:00 in "Poster Session 5: Diagnostic and Prognositic Tools" by Elinor Nemlander.

Poster / Ongoing study with preliminary results

Stress as a risk factor for stroke – which levels are dangerous? Observations from the Population Study of Women in Gothenburg

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Keywords: stress, stroke, women, preventive work

Background:
During the last decades, psychological stress has been increasingly recognized as an important and independent risk factor for cardiovascular disease, including stroke. There have also been indications that the effect of stress on stroke risk is more pronounced in women. The possible cumulative effect of psychological stress, makes it an appropriate target for early interventions in clinical care. However, mental stress is very common in women and little is known about what levels of stress that are actually harmful and thus suitable to aim in the preventive work.

Research questions:
The aim of this study is to investigate the potential associations between different levels of perceived mental stress in Swedish women and the risk of later first-time stroke.

Method:
A representative sample of 2288 women of different ages from the Population Study of Women in Gothenburg, a prospective observational study initiated in 1968. The selection of the women was based on birth date and the information obtained from the Revenue Office Register. Perceived mental stress was measured using a form with a six-point scale at the women's baseline examination. First-time stroke was investigated from the time of the women's baseline examination and until the end of December 2020. Information about stroke was retrieved from hospital-based registers.

Results:
Preliminary results of the potential associations between different levels of mental stress and later risk of first-time stroke will be presented.

Conclusions:
Stress is an important risk factor for stroke which is not always addressed in primary care to the same extent as other known risk factors, like hypertension. Considering how common mental stress is in women, knowledge about what levels that are harmful, could be used when selecting women with possible benefits from preventive measures.

Presentation on 10/05/2025 11:00 in "Poster Session 5: Diagnostic and Prognositic Tools" by Linda Sandin.

Poster / Finished study

Validation of lung ultrasound, performed by family physicians, as an initial imaging test to diagnose pneumonia in COVID-19 patients.

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Keywords: ultrasound, pneumonia, COVID-19, primary care

Background:
Most studies on lung ultrasound and COVID-19 pneumonia have been conducted in patients in hospital environments. Few studies assess the diagnosis accuracy of point-of-care ultrasound (POCUS) in COVID-19 patients with suspected pneumonia visited in primary care. The only prospective study on diagnostic value of POCUS for the diagnosis of COVID-19 pneumonia found a sensitivity (S) of 87.8% and a specificity (SP) of 58.5%.

Research questions:
Which is the value of POCUS for the diagnosis of pneumonia in patients with SARS-CoV-2 virus infection, performed by family physicians in primary care health centers and at the patients' homes?

Method:
Prospective observational study of diagnostic validation.
Setting: Patients attended in primary care (health center or at home), aged ≥ 18 years diagnosed with COVID-19 by PCR were included.
Variables: sociodemographics, vital signs (temperature, pulse oximetry, respiratory and heart rate), comorbidities, LUS results.
Gold standard: final diagnosis of pneumonia by hospital clinical records review.
Analyses: descriptive, bivariate (positive vs. negative LUS), sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV).
Project approved by the Ethics Committee and all participants signed informed consent before inclusion.

Results:
383 patients.
Overall LUS values: sensitivity 68.3% (95%CI 62.5%-73.6%), specificity 43.6% (95%CI 33.5-54.2%), PPV 78.7% (95%CI 73.0-83.5%), NPV 31.1% (95%CI 23.5-39.8%).
According to ultrasound finding:
- Pleural B-lines/irregularities S:64.9% (95%CI 58.8-70.6%), E:50.0% (95%CI 38.8-61.2%)
- subpleural condensation S:50.8% (95%CI 43.4-58.2%); E:61.2% (95%CI 48.5-72.6%)
- lobar consolidation S:9.0% (95%CI 4.5-16.8%), E:89.1% (95%CI 75.6-95.9%).

Conclusions:
POCUS sensitivity for the diagnosis of pneumonia in COVID-19 patients is comparable to the one achieved by the chest X-ray in COVID-19 and non-COVID-19 patients (using CT scan as gold standard).
In patients with clinical suspicion of COVID pneumonia, POCUS performed by family physicians could be a helpful tool to support diagnosis at primary care.

Points for discussion:
Integration of POCUS in GPs workflow

training and competency requirements for physicians

changes in resource allocation within the healthcare system and shifts in the role of primary care physicians

Presentation on 10/05/2025 11:00 in "Poster Session 5: Diagnostic and Prognositic Tools" by Mª Cristina Gadea-Ruiz.

Poster / Ongoing study with preliminary results

Career Choices of Medical Graduates who Completed a Novel General Practice-Oriented Pre-Graduate Curriculum in Switzerland

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Background:
Undergraduate medical training in Switzerland historically has little exposure to general practice, encouraging graduates to pursue other specialities. To address this, in 2019, the University of Fribourg introduced a new Master's curriculum (equivalent to 4th-6th years of integrated medical programme) with substantial and regular exposure to general practice aiming to inspire more graduates to become general practitioners.

Research questions:
What is the impact of a novel general practice-oriented Master's programme on career choices of medical graduates?

Method:
This is a repeated survey of all medical graduates from the University of Fribourg since the first class graduated in 2022. Electronic questionnaires are sent to graduates every 2 years from the final Master's year until 10 years post-graduation. Baseline data collection started in 2024 of two graduating classes - second postgraduate year for graduating class of 2022 (n = 36) and final Master's year for graduating class of 2024 (n = 30). Data is currently being collected for second postgraduate year for graduating class of 2023. In addition to socio-demographic data, questionnaires address postgraduate occupations, choice of speciality training and envisaged type of practice after speciality qualification. The factors influencing these career choices are also explored.

Results:
55 medical graduates (83% participation, 69% women) responded to the baseline questionnaire of graduating classes of 2024 and 2022. The majority of graduates have chosen (29%) or are considering (44%) a career in general practice. Among these graduates interested in becoming general practitioners, the most encouraging factors were pre-graduate internships and mentoring in general practice. Among graduates not considering a career in general practice, administrative burden was the most frequently reported deterrent.

Conclusions:
A strong emphasis on general practice during undergraduate years seems to play a role in encouraging medical graduates to become general practitioners. Disincentives, such as administrative burden need to be addressed to mitigate shortage of general practitioners.

Points for discussion:
What measures can be taken to address the administrative burden that discourages medical graduates from becoming general practitioners?

In your country, what initiatives have been implemented during undergraduate medical training to encourage medical graduates to pursue a career as general practitioners?

Presentation on 10/05/2025 11:00 in "Poster Session 6: Educational Needs for Practice Improvement" by Océane Corpataux.

Poster / Ongoing study with preliminary results

Digital support tool for deprescribing psychotropics in general practice - applicability and feasibility from general practitioners' perspectives

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Keywords: Psychotropic drugs, Deprescribing, Digital tool

Background:
Deprescribing psychotropic medications is challenging for general practitioners (GPs). Digital tools can assist in selecting appropriate tapering regimens that may reduce withdrawal symptoms and enhance patient motivation. The 'Tapering Support Tool', developed as part of a deprescribing study, includes evidence-based recommendations to optimize tapering regimens and management of withdrawal symptoms. It calculates 'hyperbolic tapering' to achieve a linear decrease in receptor occupancy, potentially alleviating withdrawal symptoms.

Research questions:
How do GPs perceive the usefulness, functionality, and content of the Tapering Support Tool in clinical practice, and what are their suggestions for improving its integration into routine workflows?

Method:
A qualitative study is planned involving semi-structured interviews with a maximum variation sample of GPs (n=10), differing in age, gender, professional experience, and practice location. Interviews with four GPs have already been conducted. The questions address usefulness in clinical practice, functionality, and content. The transcripts were thematically analyzed by two independent researchers, employing both inductive and deductive approaches as described by Braun and Clarke, using MAXQDA software.

Results:
Initial interviews with four GPs revealed the need for a digital tool to support the almost daily deprescribing of psychotropic medications. The tool was well-received for its usability, functionality, and practicality. Participants noted its potential to enhance patient communication and optimize planning. For most, it was their first exposure to hyperbolic tapering. Suggestions included adding graphical tapering schedules and direct patient-facing features to improve communication and optimize clinicians' time. A key concern was the practical implementation of hyperbolic tapering at low doses.

Conclusions:
GPs rated the tool as user-friendly, functional, and practical, noting its potential to support shared decision-making with patients. Initial modifications were made based on their suggestions for improvement. Incorporating the tool into GPs' daily routines can facilitate the effective deprescribing of psychotropic medication.

Points for discussion:
Barriers and Challenges in Deprescribing: What are the key barriers GPs face in tapering psychotropic medications, including managing withdrawal symptoms and patient motivation? How can these be addressed to improve the deprescribing process?

Role of Digital Tools in Deprescribing: How can digital tools like the Tapering Support Tool enhance shared

decision-making, and what strategies can ensure their successful integration into daily practice, particularly for implementing hyperbolic tapering schemes?

Support for Tool Adoption: What role can health systems or policymakers play in supporting the adoption and effective use of deprescribing tools in general practice, including addressing challenges in small dose reductions?

Presentation on 10/05/2025 11:00 in "Poster Session 6: Educational Needs for Practice Improvement" by Kiran Chapidi.

Poster / Finished study

Primary Care Nurses' Experiences and Training Needs in Text-Based Care Assessments in Telehealth

Elnura Halmambetova, Evalill Nilsson, Cecilia Fagerström, Hans Thulesius, Clara Axelsson, Jan Aidemark, Carina Werkander Harstäde

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Keywords: Nurses, Primary Health Care, Qualitative Research, Technology Integration, Training Needs Assessment

Background:
The digital transformation of healthcare has introduced telehealth solutions to enhance accessibility in primary care. Chat-based telehealth assessments are one such innovation, offering asynchronous or real-time consultations through text communication. This study explores primary care nurses' experiences and training needs to inform the development of advanced training programs and system improvements for effective telehealth implementation.

Research questions:
What are primary care nurses' experiences and training needs with text-based care assessments in telehealth?

Method:
This explorative qualitative study employed semi-structured interviews with seven primary care nurses in Swedish healthcare settings, all of whom had received basic training in text-based chat technique. A reflexive thematic analysis approach was employed to identify themes related to working experiences, perceived challenges, and identified training needs for text-based care assessments in telehealth.

Results:
Nurses reported that text-based care assessments in telehealth often extended consultation times due to challenges in achieving conversational clarity and obtaining accurate patient history. However, they valued the opportunity for reflection and collaboration with colleagues, which enhanced care quality. Key benefits included access to chat histories, the ability to share informational resources, and professional growth. Nurses highlighted the need for more advanced training in effective communication and chat techniques. They also identified areas for improvement in system functionalities, such as auto-anamnesis and auto-triage features, to improve efficiency and usability.

Conclusions:
This study highlights the importance of tailored training programs and system enhancements to optimize text-based telehealth assessments in primary care. The findings provide a foundation for creating an enhanced learning environment to support nurses' development and effective telehealth integration, offering actionable insights for healthcare professionals, policymakers, and technology developers.

Points for discussion:
How can training programs meet nurses' needs in telehealth?

What system features are important for conduction of text-based care assessments in telehealth?

How can telehealth balance speed and quality in care delivery?

Presentation on 10/05/2025 11:00 in "Poster Session 6: Educational Needs for Practice Improvement" by Elnura Halmambetova.

Poster / Ongoing study no results yet

Slovenian medical students' perceptions of working in a rural environment

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Keywords: medical students, rural medicine, curriculum, career choice

Background:
The shortage of primary care physicians, particularly family physicians in rural areas of Slovenia, is a significant issue. To make primary in rural areas more attractive, students must be sufficiently exposed to primary care in a safe and individualized environment in all stages of their career choice process.

Research questions:
Does exposing medical students to a rural working environment during their studies can positively influence their attitudes toward working in rural areas?

Method:
We developed a questionnaire based on a qualitative analysis of seminar papers submitted by students as part of the elective course "Medicine in Rural and Remote Areas" and a thorough literature review. A descriptive qualitative analysis was employed to assess students' perceptions and experiences.

The questionnaire includes:
• Basic demographic data,
• Closed-ended questions using a 5-point Likert scale, and
• Multiple-choice questions.

The questionnaire will be piloted on a sample of 10–20 medical students to ensure clarity and reliability. After piloting, it will be distributed to all medical students enrolled at both medical faculties in Slovenia (University of Ljubljana and University of Maribor).

Results:
We anticipate that, in addition to well-known factors influencing the decision to work in rural environments (rural background and financial incentives) early exposure to the rural setting during medical studies will also have a positive impact on students' willingness to consider rural practice in their future careers.

Conclusions:
Integrating rural medicine into the mandatory medical curriculum could play a critical role in increasing interest among young doctors in pursuing careers in rural areas.

Points for discussion:
Does your university offer students to meet with rural medicine during obligatory/elective courses?

How can family physicians enhance medical students' interest in working in a rural environment during their family medicine rotation?"

Presentation on 10/05/2025 11:00 in "Poster Session 6: Educational Needs for Practice Improvement" by Marija Petek Šter.

Poster / Ongoing study with preliminary results

The importance of a general practice placement in postgraduate training - a qualitative study in Finland

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Background:
In Finland, 9 months of general practice training is included in all postgraduate medical training programmes. Based on previous research in Denmark, trainees consider general practice placement to be an important part of their postgraduate training. We have limited knowledge of experiences in Finland.

Research questions:
Our aim was to understand how junior doctors perceived their experience and how their career plans changed during their placement in general practice. We are also interested in their views on the role of primary health care in the health system.

Method:
We designed a semi-structured focus group interview to which we invited doctors in training at the end of their placements in general practice. Four groups of 3-4 trainees were interviewed at the end of 2024. The group interviews were audio recorded and transcribed. To analyse the data, we will conduct an inductive thematic analysis.

Results:
A total of 14 trainees were interviewed. The median work experience of the trainees was 7.5 months in general practice (6-14 months). Preliminary results from an ongoing analysis suggest that in general practice the trainees learn the skills taught in medical school in a more practical way. The trainees say they have gained a better understanding of patient-centred care. Many of them state that the training period has helped them to clarify their career plans and better understand the importance of primary health care and the work of a GP. The results of the thematic analysis will be presented at the conference.

Conclusions:
Preliminary results indicate that postgraduate training in general practice is a period of intensive learning. It helps to understand the role of general practice and may help to clarify one’s career plans. We conclude that general practice training is an important part of any postgraduate training.

Points for discussion:
What is the role of general practice in the training of postgraduate doctors in other countries?

What are the experiences of postgraduate training in general practice in other countries?

Presentation on 10/05/2025 11:00 in "Poster Session 6: Educational Needs for Practice Improvement" by Matti Nissilä.

Poster / Almost finished study

Using Virtual Clinical Placements to overcome challenges and enhance medical education in Ukraine: An Objective Evaluation of Learning

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Keywords: medical education, clinical education, virtual placement, remote learning, family medicine, general practice, blended learning, war

Background:
The lack of practical medical education in family doctors` practices is particularly severe in Ukraine, where war has placed additional burdens on the healthcare system. A key obstacle in training new doctors is the limited availability of high-quality clinical learning experiences. Implementing effective virtual clinical environments (VCE) into undergraduate medical education has therefore become crucial during wartime.

Research questions:
In the context of war, what are the changes in knowledge and self-confidence assessment of medical students learning family medicine through virtual clinical experiences?

Method:
Two groups of senior medical students from Uzhhorod National University (n=9) and Kharkiv National Medical University (n=9), a war-affected region, completed 13 clinical teaching sessions over 13 weeks covering common family medicine cases using real patients. Sessions were led by experienced clinicians using the VCE platform. Written assessments forms of knowledge and self-confidence were designed and validated for each teaching session to evaluate students' knowledge. Students completed these before each session and again afterwards along with a validated self-assessment of skills questionnaire.
To assess knowledge retention, at the end of the teaching program, students were assessed using a selection of questions from the previous written tests.

Results:
Students' posttest scores following the VCE teaching sessions were increased compared to their pretest scores. This increase was maintained in the end of program assessment. In the self-assessment questionnaires students showed an increased level of confidence in their communication and clinical management skills.

Conclusions:
Virtual clinical experience is an effective method of teaching family medicine to medical students within the context of war. Further work is needed to assess the effectiveness of VCE in teaching hands-on clinical skills.

Points for discussion:
How can VCE be integrated into traditional medical education program, both in the context of war and outside of this?

What are the potential strengths and limitations of VCE in medical education?

Presentation on 10/05/2025 11:00 in "Poster Session 6: Educational Needs for Practice Improvement" by Helena Manzulych.

Poster / Study Proposal / Idea

Bridging the Digital Divide in Primary Care: Exploring the Impact of Digital Exclusion on Patients and Providers

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Keywords: Digital divide, digital exclusion, healthcare equity, person-centered care, primary care, Sweden

Background:
The digital transition in primary care aims to improve access but may worsen inequities for those unable or unwilling to use digital pathways. This "digital divide" affects individuals with psychosocial or cognitive disabilities, risking health disparities. Barriers such as neurodevelopmental and cognitive impairments are known, but further research is needed to explore these issues in primary care. This study examines how digital exclusion impacts patients and how primary care providers address their needs.

Research questions:
Why do some patients avoid digital contact pathways in primary care?
How does digital exclusion affect their health, well-being, and access to care?
How do primary care staff address the needs of these patients?

Method:
A qualitative, inductive study using phenomenography to explore individual perceptions.
Data will derive from semi-structured interviews with two groups: patients visiting primary care without appointments and the healthcare staff who work there. Conducted across three primary care units in Sweden, the study will include approximately 30 participants, ensuring diverse socioeconomic and geographic representation. Analysis will focus on identifying patterns and categories of understanding.

Results:
Prior research links digital exclusion to psychosocial and cognitive challenges. This study aims to provide new insights into Swedish primary care, highlighting how digital exclusion shapes healthcare interactions and outcomes. Findings will assist in designing more inclusive systems. The study aims to reveal the experiences of digitally excluded patients and strategies used by primary care staff to support them. The results will inform inclusive, person-centered practices, addressing the digital divide in an increasingly digital healthcare system.

Conclusions:
Primary care in Sweden is becoming increasingly digitized. Digital exclusion leads to difficulties in contacting primary care, but what these difficulties are from the perspective of the patient and healthcare is currently not known. The study is expected to provide new knowledge about this phenomenon.

Points for discussion:
How can healthcare systems address the digital divide without sacrificing person-centered care?

What methods can primary care providers use to better understand and accommodate digitally excluded patients?

What policy changes are needed to ensure equitable access to healthcare in the context of digital transformation?

Presentation on 10/05/2025 11:00 in "Poster Session 7: Patient centred care" by Mi Segerström.

Poster / Finished study

Factors influencing medication adherence in General Practitioners' practice: results from qualitative study in Latvia

Glenda Kuciņa, Vija Siliņa, Hans Thulesius

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Background:
Medication adherence is a significant challenge in chronic disease management, with only 50% of patients consistently following prescribed therapies. Despite the availability of effective treatments, poor adherence contributes to unmet health outcomes in general practice.

Research questions:
This study aimed to identify factors influencing medication adherence in general practice and explore strategies for improvement.

Method:
Semi-structured interviews were conducted with 18 patients, aged 23 to 92, from a rural general practice in Latvia, between December 2023 and January 2024. Participants had long-term medication prescriptions and/or a history of non-adherence. Thematic analysis was used to identify key themes.

Results:
Three main factors were identified. Self-medication was a significant issue, with many patients adjusting or discontinuing medications due to unmet treatment expectations, external advice, alcohol use, or side effects. Communication deficiencies between patients and healthcare providers were another barrier, with patients reporting unclear benefit of medication use. Medication management also emerged as a challenge, as patients often forgot to take medications or not carrying them to work or on a trip.

Conversely, factors promoting adherence included health literacy, perceived treatment benefits or risks of deterioration, and the use of medication management systems, both digital (reminder apps) and non-digital (pill organizers).

Conclusions:
Self-medication, communication barriers, and medication management issues significantly affect adherence. Improving patient education, fostering better communication, and providing tools to support medication management could enhance adherence and treatment outcomes.

Points for discussion:
How does self-medication affect patient adherence, and what strategies can healthcare providers use to address this issue?

How can health literacy be increased to support better medication management and adherence in general practice?

Presentation on 10/05/2025 11:00 in "Poster Session 7: Patient centred care" by Vija Siliņa.

Poster / Finished study

How can we improve the experience of Breaking Bad News? A Systematic review.

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Keywords: breaking bad news, bad news, anxiety, stress, depression, satisfaction, preferences, hope, recall, quality of life

Background:
Breaking bad news is a frequent experience requiring communication skills. Existing protocols (SPIKES, ACBCDE...) provide guidance for physicians, but few studies have focused on patient preferences.

Research questions:
How can we improve the delivery of bad news according to patients?

Method:
To answer this question, formulated using the PICO method, a systematic literature review was carried out to extract elements relating to anxiety, depression, satisfaction, patient preferences, hope, memory and quality of life from ten databases and grey literature. In line with PRISMA recommendations, articles were screened by two readers, in double-blind conditions, and disagreements were resolved by a third reader.

Results:
Twenty-two studies included, including two literature reviews.
Involvement of a nurse reduced anxiety and depression. Use of the word “cancer” reduced depressive symptoms. Families of intensive care patients were more satisfied when doctors supported their end-of-life decisions. Parents of sick children were more satisfied when they were given time, clear, consistent and accessible information, and the opportunity to ask questions later.
Patients expressed preferences for a summary of the situation, a point of understanding, a choice of third-party presence, verification of the desired level of information and emotional support. Women valued content and wanted more emotional support. Men prefer to be consulted about the presence of a third party. Young adult cancer patients need more psychological and social support. Older patients are less likely to remember long, rich consultations.

Conclusions:
This literature review identifies ways of improving the experience of breaking bad news according to patients' preferences. Better integrating them into existing protocols would improve the experience of breaking bad news.

Points for discussion:
Despite general preferences, specificities of age, gender, context and culture need to be anticipated, while respecting each person's individuality.

Training seems necessary to learn how to adapt to the individuality of each person.

Presentation on 10/05/2025 11:00 in "Poster Session 7: Patient centred care" by Alice Laurandeau.

Poster / Published

Internet-delivered psychological treatment program for adults with frequent migraines: a randomized controlled pilot study with a mixed methods design.

Marie Peersson

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Keywords: IKBT, migraine, pain,

Background:
An internet-delivered psychological treatment program called Internet Approach to Migraine (I AM), based on a pain perspective, was developed in 2021 in the Västra Götaland region in western Sweden. Migraines are episodic and recurring conditions in individuals who are often symptom-free between attacks, but when migraine attacks become frequent, there is a risk of developing chronic migraine.

Research questions:
The purpose of the study was to evaluate the feasibility, acceptance, and initial treatment effects of I AM, when used in conjunction with standard medical treatment (TAU) for migraine patients in Swedish primary healthcare settings.

Method:
The pilot study was a randomized controlled treatment study with a mixed-methods convergent parallel design. Twenty nine participants were randomly assigned to one of two treatment conditions: (1) therapist-guided internet-based psychological treatment in combination with usual medical treatment (TAU) or (2) TAU in primary care.

Results:
Seventy-two percent of the 29 participants completed both baseline and 3-month follow-up measures. On average, participants completed 7.7 modules, with 60% completing all 10 modules. Promising effect size indicated a reduction in migraine days during the three-month follow-up.
Interviews with participants (n = 7) indicate that most participants had struggled with migraines for decades and expressed dissatisfaction with the limited medical care. They found the flexible, digital format particularly helpful, praising its accessibility and structured learning. While they appreciated the comprehensive content, some faced challenges with the psychological language and the program pace. Post-treatment, participants reported emotional and behavioral changes, and better migraine management.

Conclusions:
Both qualitative and quantitative data support the feasibility and acceptability of the intervention in primary care settings.
To our knowledge, this is the first randomized controlled trial (RCT) to investigate an internet-based psychological treatment for patients with migraine in primary health care in Sweden.

Presentation on 10/05/2025 11:00 in "Poster Session 7: Patient centred care" by Marie Peersson.

Poster / Almost finished study

Optimizing primary care for post-COVID-19 patients: leveraging clustering techniques for personalized diagnosis and treatment

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Keywords: patient clustering, post-COVID-19 condition, personalized medicine, primary care optimization, data-driven healthcare

Background:
Post-COVID-19 condition (PCC) presents with heterogeneous clinical manifestations that challenge diagnostic and therapeutic strategies in primary care. Clustering techniques offer a promising approach to stratify patients based on symptomatology and clinical characteristics, potentially improving personalized care delivery.

Research questions:
1. Can patient clustering techniques improve the identification of distinct PCC phenotypes?
2. How does clustering contribute to optimizing diagnostic and treatment pathways in primary care?
3. What are the implications of symptom clustering for patient management and healthcare resource allocation?

Method:
A retrospective cohort study was conducted using data from Long-COVID patients. Hierarchical and machine learning-based clustering techniques were applied to clinical, biochemical, and immunological markers to identify distinct patient subgroups. Comparative analysis was performed to assess the impact of clustering on diagnostic accuracy and treatment personalization.

Results:
Preliminary findings identified distinct PCC clusters with varying symptom profiles, severity levels, and functional impairments. Clustering revealed associations between symptom clusters and specific biochemical markers, allowing for targeted diagnostic and therapeutic approaches. Patients in certain clusters demonstrated improved outcomes when personalized treatment protocols were applied.

Conclusions:
Patient clustering techniques provide valuable insights into the heterogeneous nature of PCC, facilitating more precise diagnostics and individualized treatment plans in primary care. These findings highlight the potential of clustering to enhance patient management, reduce diagnostic uncertainty, and optimize healthcare resource utilization.

Points for discussion:
Integration of clustering methods into routine primary care workflows.

The role of artificial intelligence in refining clustering models in primary care settings.

Challenges and future directions in personalized PCC management.

Presentation on 10/05/2025 11:00 in "Poster Session 7: Patient centred care" by Fátima Méndez-López.

Poster / Ongoing study with preliminary results

Patients' perspectives on facilitators to deprescribing medications in older patients in Sweden – a questionnaire study

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Keywords: deprescribing, older patients, polypharmacy, primary care

Background:
Older patients are often treated with multiple medications simultaneously (polypharmacy), increasing the risk of side effects, interactions, and hospitalizations. Deprescribing involves identifying, discontinuing, reducing, substituting or tapering medications where potential harms outweigh potential benefits. It is feasible, generally safe, and may improve clinical outcomes. However, patients' barriers may exist. The aim of this study was to explore older patients´ perspectives on factors that facilitate deprescribing.

Research questions:
What would help older patients with polypharmacy to stop or reduce the dose of a medication?

Method:
This project builds on a cohort of patients from a previous cross-sectional study investigating older patients' attitudes towards deprescribing in 14 countries. Patients ≥ 65 years and regularly taking ≥5 medications were consecutively recruited through their General Practitioner (GP). An anonymous questionnaire was administered to each patient. This descriptive analysis concerns the Swedish cohort and investigates two questions: "Thinking about your current medication list, are there any medications that you would like to stop taking or reduce the dose of?", and "What would help you to stop or reduce the dose of a medication?". Chi-square test was used for comparisons.

Results:
In all, 27 (27%) out of 101 patients wanted to deprescribe medications. The support of GPs was the most common help for patients in case of deprescribing (n=69, 68%), followed by plan/instructions for deprescribing (n=38, 38%), restart the medicine if necessary (n=23, 23%), use of an alternative medication (n=22, 22%), lifestyle change/physiotherapy (n=11, 11%), other (n=4, 1%). Being willing to restart the medicine if necessary was more common in those wanting deprescribing: 11 (41%) versus 12 (16%) patients (P=0.009).

Conclusions:
Almost three out of four older primary care patients with polypharmacy identified their GP as the most important source of assistance during deprescribing. This highlights the importance of the GP-patient relationship in improving pharmacotherapy.

Points for discussion:
How can the patient's perspective contribute to the development of deprescribing interventions in primary care?

How to enhance the GP-patient relationship in settings with low continuity of care?

Presentation on 10/05/2025 11:00 in "Poster Session 7: Patient centred care" by Naldy Parodi López.

Poster / Ongoing study with preliminary results

Choosing Wisely: low value care as described by Swedish GPs

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Keywords: low value care, choosing wisely, general practice

Background:
A considerable fraction of health care activity does not contribute net health gains for patients. General practitioners are exposed to such low value care in many ways and it is a source of professional frustration. The Choosing Wisely movement aims to identify low value care and to reduce it through campaigns directed at health care professionals and the public.

Research questions:
Which health care activities do Swedish GPs think should be de-implemented?

Method:
A nationwide data gathering effort was organized by the Swedish Association of General Practice in 2023–2024, in order to collect proposals for an upcoming Choosing Wisely campaign. GPs and residents in general practice were invited to 3-hour workshops held by the authors. After an introductory presentation, participants worked in groups to identify five candidate activities for de-implementation. Participants were asked to motivate each proposal and suggest underlying drivers that kept the activity going in spite of its low value. They were also asked to suggest ways of measuring the outcome of efforts directed at decreasing the activity, as well as evidence of it being of low value.

Results:
A total of 18 workshops were organized, in 13 of the 21 Swedish regions. There were 115 groups with 6–10 participants each, contributing 739 candidates for low value care to be de-implemented. Out of these, 409 (55%) were motivated, 125 (17%) had reference to drivers, 89 (12%) came with a suggestion for evaluation and 38 (5%) pointed to some evidence. The proposals were categorized into the following overarching themes: administrative burdens, specific health care activities, general principles, and those related to clinical guidelines and health care routines.

Conclusions:
Swedish GPs contributed a wealth of suggestions for de-implementation, which is crucial for arriving at a Choosing Wisely campaign that adequately reflects their experience.

Points for discussion:
How could this data be used for creating higher value care in the future?

What type of analysis is reasonable given the extent of this material?

There is also a “positive” counterpart, “which health care activities should GPs do more of” – how could these replies be integrated in the analysis?

Presentation on 10/05/2025 11:00 in "Poster Session 8: Quality of care" by Hálfdán Pétursson.

Poster / Ongoing study with preliminary results

Do nurse practitioners-lead clinics increase primary care access? A longitudinal study in Québec, Canada

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Keywords: Primary care; Access ; NP; NP-lead clinic

Background:
Nurse practitioners (NPs) are a growing workforce with significant potential to improve access to primary care services across the life course and across diseases and conditions. In 2022, the province of Quebec, Canada, opened its first “NP-clinics” to improve access to primary care and reduce pressure on emergency departments. The services offered by these clinics is predominantly provided by NPs with a holistic approach. The services are designed to ensure access to the right services, at the right time, in the right place and include telehealth. They must also go beyond the provision of acute care and focus on integrated care and care continuity between care settings.

Research questions:
The objective of this study is to examine the effects of 8 participating NP-clinics on the patients’ use of primary care and emergency department services.

Method:
Over a 3-year period (2 years before and 1 year after the openings of the participating clinics), we collected medical-administrative data from all the patients who consulted at least one time in one of the participating NP-clinics. A control group was matched on gender, age, comorbidity, level of rurality and deprivation.

Results:
Overall, NP-Clinics were able to manage 95% of the consultations. The results of the analysis of effects using 3 indicators of access to primary care services will be presented. The measured indicators include the use of primary care services, the use of the emergency department, and the hospitalizations for ambulatory care sensitive conditions.

Conclusions:
Our results will allow us to evaluate the effects of NP-clinics on the improvement of the access to primary care services. These clinics have evolved since their opening, our longitudinal results will allow us to examine whether these effects change over time. The results may help other countries developing the advanced nursing role in primary care to identify its potential benefits.

Points for discussion:
Contribution of NPs to meet the primary care needs of the population

Presentation on 10/05/2025 11:00 in "Poster Session 8: Quality of care" by Arnaud Duhoux.

Poster / Finished study

How do children of doctors experience medical treatment by their parents? Results of a qualitative study

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Keywords: Family Medicine; relatives; doctor-patient-communication; Doctor's family

Background:
In Germany, there are no official recommendations for doctors when providing medical treatment to their own relatives. Empirical studies show that hardly any physician can avoid this issue and that the treatment of relatives is associated with complex ethical problems. This also applies to children of doctors, who are very often treated by their parents. Little is known about children's views on medical treatment by their parents.

Research questions:
The aim of this work is to contribute to the scientific and ethical debate on the medical treatment of doctor's own relatives by adding the perspective of children.

Method:
Qualitative interview study with 13 young adults whose mother and/or father was or is a medical doctor. The guided interviews were recorded on tape and transcribed for analysis. A qualitative content analysis according to Kuckartz was carried out in MAXQDA, which was supplemented by open coding and validation sessions with a group of experts.

Results:
Informal treatment outside of routine care was frequently reported, with both positive (constant availability) and negative (incomplete treatment) aspects being mentioned. The respondents often felt that their parents did not take their own illness seriously. Nevertheless, they expressed total trust in the medical competence of their parents - even in cases of incorrect treatment that were reported several times.

Conclusions:
In the interviews, the role conflicts (patient vs. child) in children of doctors become clear. This can lead to a collision between the requirement to respect parental authority and the developing attitude of a mature, self-confident patient. Parents' handling of illness in the family is often described as trivialising or purely “medically professional”, which could indicate that the doctor's children are not receiving enough emotional attention. The topic of medical treatment of one's own relatives should be given greater consideration in medical education and training.

Points for discussion:
What are the experiences of medical treatment of children by their parents in the different countries?

How should doctors behave when their own children are ill?

What should a guideline on this topic contain?

Presentation on 10/05/2025 11:00 in "Poster Session 8: Quality of care" by Achim Mortsiefer.

Poster / Almost finished study

Improving continuity of care through digital solutions: a study among general practitioners in Finland

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Keywords: Continuity of care; Digitalization; General practice

Background:
General practitioners (GPs) use various digital solutions every day. Health service providers could harness these to assist a patient and health care professional to improve continuity of care (COC).

Research questions:
The purpose of this study was to find out general practitioners' views on how digital solutions can improve COC.

Method:
A web-based survey among GPs in Finland from May to October in 2023. In the survey, we asked GPs in Finland: "How would you enhance the implementation of continuity of care?" In this substudy, we analysed answers considering digital solutions. We sent the survey by email to the contact persons of health services and requested them to spread it forward to the GPs in the working area. We analysed data using inductive thematic analysis.

Results:
We received a total of 295 answers from GPs all around Finland. Respondents were mostly specialists of general practice or resident doctors with over five years of working experience and usually working in large health centres. Digitalization was one of the main themes in the answers about improving COC. In relation to digitalization, we identified the following main themes (subthemes in parentheses): coordination of care ("digitalization to serve and support COC"), informational continuity ("every health care professional responsible for updating the care plan", "easy-to-access medication", "care plan, treatment goals, and description of functional ability available"), user-driven development of electronic health record systems ("same electronic health record system for all", "developing electronic health record system to support COC"), and knowledge of the realization of COC ("shared goal", "measuring COC and using this knowledge").

Conclusions:
Digitalization was mainly mentioned related to informational and system level COC. Digital solutions can ease the implementation of COC even in the large health centres.

Points for discussion:
The role of electronic health record systems around Europe from the perspective of COC

What kind of digital solutions can aid GPs to implement COC?

Presentation on 10/05/2025 11:00 in "Poster Session 8: Quality of care" by Ulla Mikkonen.

Poster / Ongoing study with preliminary results

Models of communication between medical specialists and general practitioners

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Background:
Communication between medical specialists in the hospitals and general practitioners are crucial to ensure coherency of patient pathways and patient safety. Nevertheless, insufficient intersectoral communication remains a challenge, and has been addressed at different levels numerous times.

Research questions:
To map models for improved intersectoral communication and to explore how these models work, we ask this question:
What models of communication between hospital specialists and general practitioners can be identified in Danish and international literature, and what experiences have been reported?

Method:
Since the concept of communication models is broad by nature, we conduct a scoping review to comprise potentially diverse models within the field of intersectoral communication in the healthcare sector. The scoping review is conducted accordingly to the PRISMA-Scr guidelines. The literature search has been conducted in two different databases, and the references have been screened and assessed accordingly to the agreed eligibility criteria.

Results:
The scoping review shows that most of the models identified aim to improve communication by facilitating interprofessional consultation. Specifically, e-consultation that allows primary care providers to consult specialists for advice occur frequently in the literature. Overall, the studies report positive evaluations, and several studies report reductions in the number of referrals planned before and after e-consultation.
We rarely find models that aim to improve communication initiated by the hospital specialists or models that specifically seek to enhance inter-professional relations. Furthermore, only a few studies investigate economic or health effects of communication models.

Conclusions:
Despite a broad concept of interest, the scoping review reveals a relatively homogeneous body of communication models. E-consultation is the most frequently tested model, and overall it seems to be able to support primary care providers in managing patients.

Please note that results and conclusion are with reservations to further examination.

Points for discussion:
How to distinguish telehealth/telemedicine from electronic communication between healthcare professionals – and is a distinction fruitful at all?

Presentation on 10/05/2025 11:00 in "Poster Session 8: Quality of care" by Alberte Rodskjer.

Poster / Ongoing study with preliminary results

Validity of self-assessment questionnaire for the quality control of primary health care during the war in Ukraine

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Keywords: primary health care (PHC), quality of medical care, external validity, validation, medical care quality questionnaire

Background:
Ukrainian primary health care(PHC) reformation requires changes in quality control during war. Currently, there is a self-reported quality control questionnaire(SQCQ) developed by UKAID/USAID and recommended by the Ukrainian Health Care Ministry. However some items of this SQCQ may lose their relevance during war. This SQCQ requires revision and adaptation from the perspective of the clinical practices depending on their distance from the frontline.

Research questions:
To determine the validity of the SQCQ by family physicians working in the regions located at a different distance from the frontline.

Method:
The 48-item SQCQ was validated by family doctors who worked far from the frontline (Uzhgorod) and in the regions close to the frontline subject to shelling (Zaporizhzhia, Dnipro, Kharkiv, Kropyvnitsky). 10 doctors assessed the validity of each question on a 5-point scale, together with their comments explaining their point of view. Quantitative analysis of Item Impact Score (IIS) for each question of the SQCQ together with qualitative evaluation of doctors' comments were performed

Results:
According to the external validation, it was determined that the IIS calculated for all questions was sufficient (>1.5). However, doctors who worked close to the frontline gave lower scores for the certain items of the SQCQ (4,13,18, 19,20,34,48). This fact can either indicate the peculiarities of the quality assessment of these regions or a random subjective vision of the respondents. In order to assess the phenomenon found during our survey, an additional validation survey is planned separately among two groups of doctors living in areas close to and far from the frontline.

Conclusions:
Face validation of all questions of the SQCQ showed high high IIS for each item during wartime. Though some items of the SQCQ differed significantly from the point of view of the doctors who lived close to the frontline which requires clarification

Points for discussion:
Is self-reported quality control questionnaire being used in your country for health care evaluation

Can self-reported quality control questionnaire be used during other crisis then war?

Presentation on 10/05/2025 11:00 in "Poster Session 8: Quality of care" by Pavlo Kolesnyk.

Theme Paper / Finished study

After-hours telemedicine Pediatric Medical Consultation Center – does it meet medical needs?

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Keywords: telemedicine, pediatrics, healthcare services, overtreatment

Background:
Healthcare providers in Israel (HMOs) provide their members with online after-hours medical services as part of their regulatory obligation to ensure 24/7 out-of-hospital care.
Online pediatric medical call centers do not replace routine care. Although the utilization of this service is increasing, the quality and impact on patients' outcomes have not yet been thoroughly studied.

Research questions:
To characterize the children who use the telemedicine service compared to those who do not.

Method:
A cross-sectional comparative study was conducted, analyzing the demographic and clinical data of all pediatric patients in Leumit HMO. The study compared children who used the online pediatric service (users) at least once between 2021 and 2023 to non-users.

Results:
148,868 were non-users in comparison to 30,930 users. Children who used the service were younger (8.1 ± 4.2 years vs. 10.8 ± 4.2 years, $P < 0.05$), had higher socioeconomic status (27.1% in socioeconomic clusters 1–5 vs. 12.1%, $P < 0.05$), visited pediatricians in the community almost twice as often, and were twice as likely to visit emergency departments (EDs). They also had slightly higher rates of chronic conditions such as asthma, allergies, developmental issues, and gastrointestinal diseases. However, no significant differences were found in their average hospitalization days or the prevalence of other diseases.

Conclusions:
Children utilizing out-of-hours telemedicine services tend to be younger and consume more healthcare services. Evaluating the overtreatment and its consequences in this population is mandatory.

Points for discussion:
How to evaluate the service in other ways?

How to make a better triage to patients that are using the service?

Presentation on 10/05/2025 13:30 in "Parallel Session I - Theme Papers: Efficacy of telehealth consultations" by Shlomo Vinker.

Theme Paper / Almost finished study

SWOT analysis of “CheckMe” - Digital Web-Based Tool to Simplify Evidence-Based Prevention Planning in Ukraine During War

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Keywords: telehealth, screening, prevention, healthcare during crisis

Background:
Ukraine is lacking a state supported evidence-based program of non-communicable diseases prevention including their screening. War crisis causes a shift of patients' and doctors’ attention from preventive care to managing current health issues. Migration of the population caused losing longitudinal continuity principle in family medicine care. The Ukrainian medical system needs to search for new ways including digital technologies to increase awareness of the medical workers and population towards prevention during a crisis.

Research questions:
What are the strengths, weaknesses, opportunities, and threats associated with implementing the digital tool for evidence-based primary and secondary prevention planning “CheckMe”, as perceived by family doctors and patients?

Method:
The development of the “CheckMe” screening tool was based on the prototype “Evidence-Based Screening Advisor” using current evidence-based primary and secondary prevention recommendations from USPSTF, NICE, and WHO. A team of family medicine experts and IT specialists developed the digital tool for evidence-based prevention planning “CheckMe” with five rounds of iterative testing by experts to identify and correct errors. The SWOT (strengths, weaknesses, opportunities, and threats) analysis has been conducted online with help of 10 general practitioners and 50 patients to elicit the perceptions of the CheckMe tool. Answers from open-ended questions underwent descriptive analysis

Results:
The findings of the SWOT analysis are going to be presented in the EGPRN conference. The results are expected to guide improvement to the CheckMe screening planner enhancing its value as a resource for healthcare providers and patients.

Conclusions:
Analysis of family doctors’ and patients' opinion concerning strengths, weaknesses, opportunities, and threats of implementation of the web-based program for evidence-based prevention planning “CheckMe” has been conducted and it is important for the digital tool improvement.

Points for discussion:
How well can digital preventing planning tools help in mitigating challenges posed by crisis situations?

What are EGPRN members' attitude toward adopting digital tools in primary care?

Presentation on 10/05/2025 13:30 in "Parallel Session I - Theme Papers: Efficacy of telehealth consultations" by Nataliia Ponzel.

Theme Paper / Finished study

Telemedicine for Home Healthcare: Effectiveness, Participation, and Sustainability

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Keywords: Telemedicine, home care service, patient compliance

Background:
The growing need to optimize healthcare resources has increased the relevance of home healthcare services, particularly during the pandemic. Telemedicine, a technology-driven method, has become a critical tool, enabling diagnostic, treatment, and monitoring processes remotely. While telemedicine offers significant advantages, challenges such as limited technological literacy among the elderly remain barriers to its widespread adoption. The study aims to analyze utilization rates, adherence factors, and service types in telemedicine applications within home healthcare services, proposing recommendations to improve sustainability.

Research questions:
1.How effective are telemedicine applications in delivering home healthcare services across different age groups, and what factors influence adherence rates?
2.What are the primary barriers to successful telemedicine consultations in home healthcare services, and how can these be mitigated?

Method:
A retrospective analysis used data from 1,254 telemedicine appointments scheduled over two years. Descriptive statistics and p-value analysis ($p<0.05$) were applied to evaluate success rates and adherence.

Results:
Successful consultations were conducted for 398 patients (31.74%), with no gender differences observed. Age significantly impacted success rates, ranging from 100% in the 3–18 group to 30% among individuals 65 and older ($p=0.0057$). Most frequent services included single-doctor reports (200 cases), prescriptions (118 cases), and medical board reports (23 cases, 92% success rate). Missed appointments (616 cases), undelivered SMS (128 cases), and lack of technology access (12 cases) were key reasons for unsuccessful consultations. Telemedicine enhances healthcare access and system efficiency, especially for populations with limited mobility. However, challenges such as technological barriers and patient non-compliance limit its sustainability. Addressing these issues through improved infrastructure, education, and innovative technologies is critical.

Conclusions:
Telemedicine is an effective tool for improving healthcare delivery and facilitating access to social rights. Sustainable adoption requires addressing inequalities in digital access, enhancing patient adherence, and strengthening technical infrastructure.

Points for discussion:
Barriers to Telemedicine Adoption Among Older Adults

Improving Appointment Adherence in Telemedicine

Sustainability and Equity in Telemedicine Services

Presentation on 10/05/2025 13:30 in "Parallel Session I - Theme Papers: Efficacy of telehealth consultations" by Gokce Iscan.

Freestanding Paper / Finished study

De-implementation of low-value care practices in primary care: Results from the DE-imFAR study on abandonment of low-value pharmacological prescription for cardiovascular disease (CVD) primary prevention

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Keywords: Implementation science, preventive medicine, cardiovascular diseases

Background:
Due to increasing recognition of low-value care provision, health systems are seeking ways to cease or reduce these practices.

Research questions:
This study aimed to compare the effectiveness of three additive de-implementation strategies to reduce potentially inappropriate prescribing (PIP) of statins in CVD primary prevention.

Method:
Design: Cluster randomized implementation trial with additional control group.
Sample: Family physicians (FPs) with non-zero incidence rates of PIP of statins in 2021 from 13 Integrated Healthcare Organizations (IHOs) of the Basque Health Service (n=621).
Intervention: All FPs were exposed to (1) a non-reflective decision assistance strategy based on reminders and decision support tools. FPs from two of the IHOs were randomized to additionally receive reflective strategies - either: (2) a decision information strategy based on knowledge dissemination (n=59), or (3) a decision information strategy plus an audit/feedback reflective decision structure strategy (n=59).
Target Population: 45- to 74-year-old patients with elevated cholesterol levels, but no diagnosed CVD and low cardiovascular risk, who attended at least one appointment between May 2022 and May 2023 (n=30,672).
Main Outcome: Change in the incidence rate of PIP of statins 12 months after FPs' exposure to the strategies.
Clinicaltrials.gov identifier: NCT04022850.

Results:
All three strategies significantly reduced the pre-to-post incidence of PIP of statins in low-risk patients ($p<0.001$). There were no statistical differences when comparing all three strategies ($p=0.07$). Reduction was higher in the decision information strategy that adds a dissemination campaign to the decision support tools [adjOR=0.46(0.35-0.60)], while the audit/feedback strategy had no additional effect ($p=0.32$). A significant reduction was observed when comparing both reflective strategies with the non-reflective strategy (adjORs: 0.51 vs. 0.63; $p=0.038$).

Conclusions:
De-implementation strategies targeting clinical decision-making are effective in reducing PIP of statins in CVD primary prevention. An organizational culture promoting, prioritizing and increasing awareness to reduce low-value care is associated with better results.

Points for discussion:
What low-value care practices would you like to reduce/abandon in your practice?

What de-implementation strategies do you employ in your practice to achieve this reduction?

How effective are your de-implementation strategies? What do you think would make them more effective?

Presentation on 10/05/2025 13:30 in "Parallel Session J - Freestanding Papers: Chronic diseases" by Heather L Rogers.

Freestanding Paper / Published

Do type 2 diabetes mellitus patients included in randomised clinical trials differ from general-practice patients? A cross-sectional comparative study.

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Keywords: Diabetes Mellitus - randomised trial - comparability

Background:
General practitioners frequently question the applicability of randomised controlled trial results to the primary care population. Patients encountered in general practice such as older people or those with multimorbidities are frequently excluded from randomised controlled trials.

Research questions:
Are the characteristics of type 2 diabetes mellitus patients in general practice comparable to those included in randomised controlled trials on which clinical practice guidelines are based ?

Method:
Cross-sectional comparative study. We asked to general practitioners from 3 French Departments to identify the 15 type 2 diabetes mellitus patients they most recently saw in consultation. In parallel, we selected randomised controlled trials included in the Cochrane systematic review on which the clinical practice guidelines for type 2 diabetes mellitus were based.
Characteristics of general-practice patients were extracted from medical records by a unique observer. The same baseline characteristics of patients included in randomised controlled trials from the Cochrane systematic review were extracted and meta-analysed. We assessed standardised differences between these two series of baseline characteristics. A difference greater than 0.10 in absolute value was considered meaningful.

Results:
45 general practitioners included 675 type 2 diabetes mellitus patients, and data were collected from 23 randomised controlled trials, corresponding to 36,059 patients. General-practice patients were older than randomised controlled trial patients (mean [SD] 68.8 [1.1] vs 59.9 years [standardised difference 0.8]) and had higher body mass index (mean [SD] 31.5 [6.9] vs 28.2 kg/m2 [standardised difference 0.5]) but smoked less (11.0% vs 29.3% [standardised difference -0.6]). They more frequently used antihypertensive drugs (82.1% vs 37.5% [standardised difference 1.2]) but less frequently had myocardial infarction (7.6% vs 23.1% [standardised difference -1.1]).

Conclusions:
Type 2 diabetes mellitus patients cared for in general practice differ in a number of important aspects from patients included in randomised controlled trials on which clinical practice guidelines are based.

Points for discussion:
What implications for future research in primary care ?

What recommendations for guidelines ?

Presentation on 10/05/2025 13:30 in "Parallel Session J - Freestanding Papers: Chronic diseases" by Clarisse Dibao.

Freestanding Paper / Almost finished study

Participant selection for lung cancer screening by risk modeling using primary care electronic health records (EHRs): The Catalan scenario.

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Keywords: Primary care, electronic health records, lung cancer screening

Background:
Lung cancer (LC) is a major public health problem. Randomised trials of screening with low-dose CT have shown a significant reduction in LC mortality. Optimal selection of high-risk LC populations is essential for LC screening.

Research questions:
Does the PLCOm2012nonrace model identify high-risk LC populations when applied directly to primary care EHRs?

Method:
We calculated the PLCOm2012noRace, full version (FV) and simplified version (SV), 6-year LC risk score (≥2.6%) with the required variables: age, education level, body mass index, COPD, personal history of cancer, family history of LC, current smoking status, smoking intensity, smoking duration and years quit for former smokers. Descriptive statistics were used, considering the normality of the data as appropriate.

Results:
24,294 participants met the inclusion criteria (47.2% female), with a mean age of 65.0 years. Of these, 18.6% had a score ≥2.6. Score alteration was more common among participants aged 60–79 (23.8% vs. 22.5%) and more common in men than in women (22% vs. 15.6%). Using the SV, the proportion of individuals with a high score decreased to 9.9%. Among participants with a high score, the average duration of having a score ≥2.6 was 4.29 years with the FV, and 3.67 years with the SV. Notable differences between the FV and SV were found in the score values, the proportion of individuals with a score ≥2.6, and the duration of elevated scores, varying by sex, age, and time since smoking cessation. The component with the greatest impact on the score - smoking intensity - is the one that had not been updated for the longest time

Conclusions:
In the Catalan healthcare context, primary care EHRs represent a valuable resource for identifying individuals at elevated risk of LC. The full PLCOm2012noRace model enhances the identification of patients eligible for LC screening.

Points for discussion:
Key factors for the successful implementation of lung cancer screening programmes across Europe

Utility and benefits of primary care EHRs to improve lung cancer screening eligibility and decision suport

The role of primary care as a setting for bridging existing gaps in healthcare access, particularly for underserved populations

Presentation on 10/05/2025 13:30 in "Parallel Session J - Freestanding Papers: Chronic diseases" by Mercè Marzo-Castillejo.

Freestanding Paper / Finished study

Prescriptions of long-term beta blockers after myocardial infarction in European primary care settings (PRACTITIONER study) – a case vignette study with general practitioners

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Keywords: deprescribing, beta blocker, myocardial infarction, primary care

Background:
There is uncertainty about the chronic use of betablockers after acute myocardial infarction (AMI) with preserved ventricular function. General practitioners' (GPs) perspectives offer insights into beta blocker prescribing in daily practice amidst evolving evidence.

Research questions:
How do GPs prescribe beta blockers in patients post-AMI, how do prescribing patterns vary across Europe, and what factors influence decisions to prescribe or deprescribe beta blockers?

Method:
We conducted a cross-sectional online survey of GPs in Europe, using case vignettes to explore their decisions about beta blocker deprescribing post-AMI. Vignettes varied in time since AMI, side effects, and comorbidities of a hypothetical patient. Sociodemographic and professional characteristics of GPs were also collected. Each research site collected a minimum of 20 responses (mean=30.2). We analyzed adjusted associations between deprescribing decisions and GP characteristics using a multivariable generalized estimating equations model, accounting for clustering at the GP and country levels, and descriptively assessed factors influencing these decisions.

Results:
A total of 602 GPs from 24 research sites in 20 countries completed the survey. GPs' mean age was 45.2 years (SD 11.8), 60.1% were female, the mean work experience was 14.5 years (SD 10.8). Overall, 89.2% of GPs opted to deprescribe beta blockers in at least one vignette. Time since AMI (5 years: adjusted RR 1.28, 95% CI 1.21–1.36; 10 years: adjusted RR 1.78, 95% CI 1.66–1.90, vs. 3 months) and side effects (adjusted RR 1.76, 95% CI 1.66–1.88) increased deprescribing likelihood, while greater experience decreased it (adjusted RR 0.86, 95% CI 0.77–0.95 for the most experienced vs. least experienced).

Conclusions:
In hypothetical scenarios, GPs are willing to deprescribe beta blockers post-AMI, factoring in patient-specific elements such as time since AMI and the presence of side effects. These findings suggest that while the debate around beta blocker continuation persists, GPs are already translating discontinuation practices into practice.

Presentation on 10/05/2025 13:30 in "Parallel Session J - Freestanding Papers: Chronic diseases" by Martina Zangger.

Freestanding Paper / Finished study

2. ADAPTing psychological treatment for functional abdominal pain in Swedish specialized pediatric care settings

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Keywords: Pediatric functional abdominal pain; digital intervention; cognitive behavior therapy; cultural adaption

Background:
ADAPT (Aim to Decrease Anxiety and Pain Treatment) is a blended digital/live cognitive behavior therapy (CBT) treatment for children, aged 9-14, with functional abdominal pain disorders (FAPD) and anxiety. Initially developed and tested in USA within pediatric gastroenterology settings, a Swedish language culturally refined version was developed for use within community-based pediatric healthcare settings. Pediatric FAPD is associated with health comorbidities, such as anxiety, are common and associated with adverse pain-related outcomes and increased risk of developing other pain conditions. Therefore developing and evaluating early treatment is of great importance. This study aimed to explore the impact of ADAPT and patient experiences.

Research questions:
What are the preliminary effects of ADAPT on measures of functional disability, pain intensity and anxiety?
What are participating children's perceptions of treatment content, format and outcomes?

Method:
A convergant mixed-methods approach was used with a quantitative single-arm pre- post-test design to explore preliminary treatment effect and a qualitive design with semi-structured child interviews to explore experience of the treatment.

Results:
Findings indicate statistically significant changes and clinically significant effect on measures of functional disability and average pain intensity. In terms of treatment experience, the blended live/digital format was a perceived as a good fit for youth. Most children described finding some strategy within the program that was effective for them and also reported positive outcomes, such as increased participation in school. There was good concordance between participants' perceived experience and self-rated outcomes.

Conclusions:
As patient experiences were predominantly positive and quantitative results indicative of potential for increased function and reduced pain, the findings provide a way forward for early and accessible treatment for FAPD within Swedish community-based pediatric settings.

Points for discussion:
-Blended live/digital psychological treatment - children's perceived benefits

- Conducting clinical research: Limitations and possibilities

- Next steps: Moving forward and building on findings

Presentation on 10/05/2025 13:30 in "Parallel Session K - Freestanding Papers: Patient-centred care" by Emma Ramsay Milford.

Freestanding Paper / Finished study

Effects of the SOFIA programme on Needs-based Quality of Life and Self-perceived Inequity in Patients with Severe Mental Illness: Results from a randomised pilot study.

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Keywords: quality of life; mental health; psychiatry; patient-reported outcome measures; psychometrics.

Background:
Living with severe mental illness (SMI) negatively affects an individual's quality of life (QoL). The SOFIA program, a coordinated general practice care initiative in Denmark, aimed to reduce mortality and improve QoL for people with SMI. The program included extended GP consultations, training for GPs and staff, and guidance for connecting patients to relevant health and social services.

Research questions:
What is the impact of extended consultations on needs-based QoL in patients with SMI?
What is the impact of extended consultations on self-perceived inequity in patients with SMI?
What is the impact of extended consultations on health-related QoL in people with SMI?

Method:
A cluster-randomised, non-blinded controlled trial across nine general practices in Denmark from November 2020 to March 2021. Participants were adults with SMI defined as patients diagnosed with psychotic, bipolar, or severe depressive disorders. Practices were assigned to either a coordinated care program (CCP), CCP plus a needs-based QoL tool (CCP+), or a control group. Outcomes were measured using the MultiMorbidQuestionnaire, MMQ, and EQ-5D-5L questionnaires.

Results:
Results showed no statistically significant differences in the change in needs-based QoL between intervention and control groups. However, statistically significant differences were revealed between CCP+ and the control group in the change in the two self-perceived inequity scales: not being seen and heard and powerlessness. No statistically significant differences were found in the two other self-perceived inequity scales and the health-related QoL outcome.

Conclusions:
These findings suggest that a comprehensive approach, like that used in the SOFIA consultation, may be essential to prevent individuals with serious mental illness (SMI) from experiencing feelings of inequity. However, a pragmatic randomised controlled trial with an adequate sample size and years of follow-up is needed to validate the SOFIA program's potential impact.

Points for discussion:
How can we use the results in our daily clinical practice: How to improve the patients with severe mental illness from feeling not seen and heard?

Can primary care impact patients with SMI’s feeling of being powerless?

Could we use the results to improve the consultation process when patients have severe mental illness?

Presentation on 10/05/2025 13:30 in "Parallel Session K - Freestanding Papers: Patient-centred care" by Anne Møller.

Freestanding Paper / Finished study

Gender bias in assessing chest pain among general medical trainees and general practitioners in western of Brittany, France

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Keywords: Gender, chest pain, Implicit bias, gender bias, general practice

Background:
Implicit biases are cognitive biases and interfere with medical reasoning. They are suspected of causing inequalities in care. For example, myocardial infarction (MI) is less well diagnosed on average in women than in men.

Research questions:
The hypothesis of this study was that implicit gender bias influences general practitioners (GPs) when faced with chest pain (CP), encouraging them to evoke an organic cause less often in women than in men. The main aim of the study was to estimate this gender bias.

Method:
The study was observational and cross-sectional. The study's population comprised GPs and GP interns from Finistère, blinded to the real purpose of the study. Participants were asked to estimate the risk of MI and functional chest pain (FCP) in the face of clinical vignettes of patients presenting with CP, with random assignment of the sex of the patient. The primary endpoint was the mean difference in scores according to patient gender. Secondary endpoints were an intra-individual comparison of scores and a subgroup analysis. The study included 291 participants.

Results:
Multivariate analysis revealed a statistically significant difference for MI and FCP for the primary and secondary endpoints, with a stronger bias in GPs and university training supervisors. The sex of the respondent did not affect the responses.

Conclusions:
This study confirmed the existence of an implicit gender bias influencing the assessment of chest pain by a sample of interns and GPs. This bias can have a negative impact on women's health, and raising awareness among GPs is therefore a public health issue.

Points for discussion:
We have to deal with semiologic differences between male and female presentation in primary care.

How to deal with it during trainee education?

Presentation on 10/05/2025 13:30 in "Parallel Session K - Freestanding Papers: Patient-centred care" by Marie Barais.

Freestanding Paper / Published

Speculum self-insertion: an alternative method for gynaecological examination?

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Keywords: empowerment; gynecological examination; primary healthcare; self-insertion; speculum

Background:
Speculum examination is an intrusive practice in the clinical care of women. It requires privacy and patients may experience discomfort or anxiety related to the procedure, which can result in delays or avoidance of necessary healthcare. Speculum self-insertion originated in the United States in the 1970s as part of the self-help movement. However, this clinical practice is largely unknown among healthcare providers and has rarely been assessed.

Research questions:
This study investigates the women's views and healthcare providers' experiences of the self-insertion method.

Method:
A qualitative study was conducted between December 2021 and October 2022, including fieldwork combining semi-structured interviews (10 women) and focus groups associated with individual interviews of 13 healthcare providers. The data collected were independently coded by 2 authors and analysed using an inductive approach and grounded theory method.

Results:
Speculum self-insertion was described as a way to decrease discomfort and facilitate speculum insertion. Self-insertion was proposed as a means of allowing women to participate in the examination, reducing their vulnerability against power imbalances in the doctor–patient relationship. Both patients and healthcare providers have reported that speculum self-insertion is a method that can contribute to improving trust and communication during the examination.

Conclusions:
The practice of speculum self-insertion during the consultation is an alternative to traditional practitioner insertion and may be offered to all women by any practitioner who wishes to use this technique.

Points for discussion:
The data triangulation was repeatedly achieved through the data collection technique and by the researchers, as well as through cross-analysis with an interdisciplinary working group and the restitution of interviews and results to the participants.

The healthcare provider participants included more general practitioners than gynecologists, however self-insertion seems more suited to primary care practice.

Self-insertion is a technique that has been rarely evaluated and there is little literature on the subject.

Presentation on 10/05/2025 13:30 in "Parallel Session K - Freestanding Papers: Patient-centred care" by Marie-Morgane Veto.

Theme Paper / Almost finished study

Experiences and results of operating telemedicine-based mobile healthcare services in rural Hungarian areas

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Keywords: telemedicine; rural health; underserved population; chronic diesease; hypertension; diabetes

Background:
Healthcare access is a main problem in rural, socioeconomically underprivileged areas. The Hungarian Charity Service of the Order of Malta operates a telemedicine-based mobile healthcare program (MHP) in 35 rural settlements. MHP units are vans equipped with broadband internet connection, a high-resolution teleconference platform, devices enabling certain aspects of the physical examination via telemedicine and additional diagnostic tools, such as point-of-care lab devices. These units are operated by a trained nurses who meet the patients in person, while the physician performs consultations using the teleconference platform.

Research questions:
We aimed to measure the performance of MHP regarding care delivery and effect on chronic disease management.

Method:
Patient traffic data were collected from the electronic health records system of MHP .
From patients visiting MHP units in the first six months (01.04.2023-31.10.2023) of operation, 3 cohorts were formed, based on their chronic condition: hypertension, type-2 diabetes and obesity. Disease markers (blood pressure, HgbA1C, weight) were measured for each cohort upon the first and last visits at the MHP (with min. 30 days separation).

Results:
The overall serviced population is approx. 26,000 (35 settlements). 2571 people had at least one consultation at MHP, with 6918 consultations overall in 2024. The average number of care events per person was 2.69 (SEM:0.02). The proportion of patients with controlled blood pressure grew from 12,3% to 19,5% in the hypertension cohort, and from 25.0% to 52.8% in the diabetes cohort. The relatively short time was not sufficient to identify any trend in weight and in diabetes or lipid markers.

Conclusions:
Our early results show that MHP can effectively deliver medical care and improve chronic disease management in underprivileged regions. Further data collection and analysis is currently executed by the research group, in order to accurately assess the performance of telemedicine-based healthcare services.

Points for discussion:
Outcome markers of care

Telemedicine feasibility

Presentation on 10/05/2025 15:50 in "Parallel Session L - Theme Papers: Organisation of care in a digital era" by Ábel Perjés.

Theme Paper / Finished study

From Stethoscopes to Screens: Telemedicine in the Daily Lives of Hungarian GPs

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Keywords: telemedicine, general practitioner (GP), satisfaction

Background:
"Digital Doctoring" has rapidly gained popularity in recent years, especially after the COVID-19 pandemic and its travel restrictions. Before the pandemic, telemedicine in Hungary was heavily restricted due to legal barriers. However, the crisis prompted significant legislative changes, allowing GPs to fully utilize telemedicine. Over the past year, we have monitored telemedicine adoption among GPs, focusing on identifying challenges and offering effective solutions.

Research questions:
What barriers are preventing GPs from fully utilizing telemedicine in their daily practice?
What are the main factors undermining GPs' trust in the system?
How can the telemedicine system be improved to address these issues and increase GP trust?

Method:
The self-administered questionnaire-based cross-sectional study was conducted among GPs in Hungary in 2024 and the part of the questionnaire for patients is currently ongoing...
The questionnaire collected data on demographics, telemedicine usage patterns, and attitudes toward telemedicine.
The collected data were analyzed using descriptive and analytical statistical methods (software: IBM SPSS 28.0). We calculated trust and MisTrust scores from the data and analysed which factors shape them.
The participation was voluntary and anonymous. Ethical approval for the study: BMEÜ-1777-1-2022-EKU.

Results:
The demographic distribution of the sample (N=481) represented the GPs in Hungary. GPs who used the telemedicine video consultation more often reported lower stress and they were more confident about their consultations ($p<0.001$). In contrast, physicians with low trust scores found telemedicine stressful, were unsuccessful in patient care, and never used video consultation ($p<0.001$).

Conclusions:
Future advancements in telehealth technology and policy development are essential to address the challenges and realize the full potential of telemedicine in general practice. To provide high-quality patient care using telemedicine systems, it is essential to educate the system's users, both in terms of device use, data protection, and communication.

Points for discussion:
Ways to improve telemedicine services in Hungary and in Europe

What is the status of telemedicine in other countries?

Are patients satisfied with the telemedicine services offered by their GPs?

Presentation on 10/05/2025 15:50 in "Parallel Session L - Theme Papers: Organisation of care in a digital era" by Mária Kucsera.

Theme Paper / Almost finished study

Primary Care in the Age of Telemedicine: Diagnoses and Physician Time Across Visit Modalities

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Keywords: Primary care, visit duration, diagnoses, time allocation, telemedicine, electronic health records, reasons for encounter

Background:
Synchronous- and asynchronous telemedicine visits are replacing a growing proportion of primary care physicians' face-to-face visits. However, little is known about the distribution of time spent on clinical and administrative tasks across visit modalities.

Research questions:
To identify the most common diagnoses in contemporary primary care and explore variations by visit type (face-to-face, synchronous-, and asynchronous-telemedicine).

Method:
A population-based cross-sectional analysis of routinely collected primary-care data from Clalit Health Services. We extracted data for all primary care visits in 2023 and used visit duration to estimate the total annual time spent on each recorded diagnosis.

Results:
4,480 physicians recorded a total of 40,965,318 diagnoses in 29,625,207 primary care visits, spanning 4,236,266 hours. Of all visits, 55.2% of annual-visit-time was face-to-face (45.8% of visits; mean visit duration 10.4±8.2 minutes), 15.5% was synchronous-telemedicine (14.5% of visits; mean visit duration 9.3±8.2), and 29.2% of annual-visit-time was asynchronous-telemedicine/administrative (39.7% of visits; mean visit duration 6.4±8.0).
53.3% of total visit time was attributed to clinical diagnoses, 38.4% to administrative-related diagnoses, and 8.3% to non-specific, "general" diagnoses. Administrative work accounted for 22.9% of face-to-face time, 25.4% of synchronous telemedicine time, and 74.9% of asynchronous time. The ten most common clinical diagnoses—representing 22.2% of annual-visit-time— were: low back pain; upper respiratory infections; abdominal pain; cough; diabetes; viral infections, unspecified; urinary tract infections; tonsillitis, acute; hypertension; and headache. Common diagnoses were very similar for face-to-face and synchronous telemedicine visits; chronic disease diagnoses were more prevalent in asynchronous visits.

Conclusions:
The most common diagnoses were similar across face-to-face and synchronous telemedicine visits. A significant proportion of physicians' time was dedicated to administrative tasks.

Points for discussion:
What other differences between visit modalities should be explored?

How can we explore and compare quality of care through such EHR-based studies?

Which are meaningful ways to group and depict the most common diagnoses?

Presentation on 10/05/2025 15:50 in "Parallel Session L - Theme Papers: Organisation of care in a digital era" by Yochai Schonmann.

Theme Paper / Published

AI and Machine Learning-driven characterization models for post-COVID-19 condition: Enhancing personalized care in primary care settings

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Keywords: Artificial intelligence (AI), Machine learning (ML), Post-COVID-19 condition (PCC), Personalized healthcare, Primary care, Biomarkers, Predictive modeling

Background:
The post-COVID-19 condition (PCC) presents a significant challenge in primary care due to the lack of specific diagnostic biomarkers and the complexity of symptomatology. The integration of artificial intelligence (AI) and machine learning (ML) offers a promising approach to characterizing PCC based on immunological, biochemical, and cytokine markers, thus enabling personalized patient care.

Research questions:
Can AI and ML models effectively differentiate PCC patients from recovered individuals based on biomarker analysis? How can AI-driven predictive models aid in personalized treatment strategies for PCC in primary care settings?

Method:
A cohort of 170 individuals (85 PCC patients and 85 recovered) was analyzed for 167 biomarkers, including biochemical, immunological, and cytokine profiles. Advanced ML algorithms, including multivariate logistic regression (MLR) and random forest (RF), were employed to identify key biomarkers that characterize PCC with high accuracy and precision. The final predictive model incorporated four critical biomarkers.

Results:
The AI models effectively distinguished PCC patients from recovered individuals, providing valuable insights into the underlying pathophysiological mechanisms. The ML-based characterization model demonstrated strong predictive performance, highlighting the potential for clinical implementation in primary care to support early diagnosis and tailored interventions.

Conclusions:
The integration of AI and ML in PCC characterization offers a robust framework for personalized patient care, particularly in primary healthcare settings managing chronic and hard-to-diagnose conditions. Future work should focus on validating these models in larger, more diverse cohorts and integrating them into routine clinical workflows to enhance diagnostic precision and patient management.
By leveraging advanced analytical tools, primary care practitioners can benefit from improved diagnostic accuracy, risk stratification, and individualized treatment planning, ultimately leading to better health outcomes and more efficient resource allocation. Moreover, the ability of AI models to analyze complex biomarker interactions offers a new paradigm for managing multifactorial diseases such as autoimmune disorders, metabolic syndromes, and other conditions with overlapping symptomatology.

Points for discussion:
How can AI-driven models improve early detection and stratification of post-COVID-19 patients in primary care? What are the ethical and regulatory challenges of implementing AI-based diagnostic tools in primary healthcare settings?

How does the integration of machine learning models impact clinical decision-making and resource allocation in primary care for chronic conditions?

What are the limitations of current biomarker-based AI models in distinguishing post-COVID-19 condition from other chronic diseases?

Presentation on 10/05/2025 15:50 in "Parallel Session M - Theme Papers: AI and telemedicine" by David Lerma Irureta.

Theme Paper / Almost finished study

AI and telemedicine in general practice in 2025

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Keywords: Artificial Intelligence, Telemedicine, General Practice, Personalized Diagnosis, Medical Innovation.

Background:
Artificial Intelligence (AI) and telemedicine are rapidly transforming general practice, offering potential benefits in diagnosis, treatment, and patient care.
These technologies are transforming medical practice by increasing the quality of care and treatment efficiency. However, their specific advantages and challenges in primary care settings are not fully understood.

Research questions:
What are the specific advantages of AI and telemedicine in enhancing diagnostic accuracy, treatment personalization, and healthcare accessibility in general practice?

Method:
This study employs a mixed-methods approach, combining quantitative analysis of diagnostic accuracy and treatment outcomes with qualitative interviews of healthcare professionals. Participants include general practitioners and patients from both urban and rural settings. Data collection involves medical record analysis, AI algorithm performance metrics, and thematic analysis of interview transcripts.

Results:
Preliminary results indicate that AI significantly improves early disease detection, with a 20% increase in diagnostic accuracy for chronic conditions such as diabetes and cancer. Personalized treatment plans generated by AI algorithms show a 15% reduction in adverse effects. Telemedicine enhances healthcare accessibility, with a 30% increase in patient consultations in rural areas. These findings are based on initial data from an ongoing study.

Conclusions:
AI and telemedicine offer substantial benefits in general practice, including improved diagnostics, personalized care, and increased access. However, significant challenges remain in ethics, data security, and integration into clinical workflows.
These findings highlight the need for comprehensive training programs and clear regulatory frameworks to maximize the potential of these technologies while addressing key concerns.
The robustness of these results is supported by the mixed-methods approach and diverse participant sample.

Points for discussion:
Ethical implications and regulatory frameworks for AI in healthcare

Impact of AI and telemedicine on healthcare accessibility and efficiency

Balancing AI integration with the human element in healthcare

Presentation on 10/05/2025 15:50 in "Parallel Session M - Theme Papers: AI and telemedicine" by Alberto Parada.

Theme Paper / Finished study

AI in Healthcare Cybersecurity: Navigating the Dual-Use Dilemma

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Keywords: AI in Healthcare, Cybersecurity in Healthcare, Dual-Use Dilemma

Background:
Artificial intelligence (AI) presents a critical dual-use dilemma for healthcare cybersecurity. While offering immense potential to improve patient care and operational efficiency, AI simultaneously introduces new vulnerabilities and empowers malicious actors. This abstract explores a complex landscape, emphasizing the need for healthcare organizations to find a balance between leveraging AI's benefits and mitigating its risks.
AI promises to revolutionize healthcare through enhanced diagnostics, personalized treatments, and streamlined operations. However, this progress comes at a cost. AI systems can be susceptible to data interpretation errors, algorithmic bias, and adversarial attacks, potentially jeopardizing patient safety and data security.

Research questions:
How can healthcare organizations effectively leverage AI for enhanced cybersecurity and improved patient outcomes while simultaneously mitigating the risks posed by AI-driven attacks and inherent vulnerabilities?

Method:
This study analyzes real-world case studies of AI implementation in healthcare, examining both successful integrations and instances where AI introduced unintended consequences. It further investigates the evolving landscape of AI-enabled cyberattacks and explores strategies for proactive defense.

Results:
Preliminary findings highlight the need for a multi-faceted approach. Organizations must prioritize robust data governance, invest in AI-powered security solutions, and cultivate a culture of cybersecurity awareness among healthcare professionals. Crucially, striking a balance between AI-driven automation and human oversight is essential to ensure responsible and ethical AI implementation.

Conclusions:
Successfully navigating the dual-use dilemma of AI in healthcare requires a strategic approach that embraces innovation while acknowledging and mitigating potential risks. By prioritizing patient safety, data security, and ethical considerations, healthcare organizations can harness the transformative power of AI for the benefit of all stakeholders.

Points for discussion:
Balancing AI innovation with cybersecurity risks

Role of human oversight in AI-powered cybersecurity

Presentation on 10/05/2025 15:50 in "Parallel Session M - Theme Papers: AI and telemedicine" by Vytis Radvila.

Freestanding Paper / Almost finished study

Guideline Adherence in Community-Acquired Pneumonia: Do Doctors Follow the Rules and Does It Matter?

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Keywords: Community-Acquired Pneumonia (CAP), Guideline Adherence, Antibiotic Therapy, Clinical Outcomes, Hospitalization Rates

Background:
Community-acquired pneumonia (CAP) is a common illness influenced by pathogen type, patient demographics, and geography. The 2019 ATS/IDSA guidelines recommend empirical antibiotics based on patient history and risk factors.

Research questions:
This study examines adherence to CAP treatment guidelines and its impact on clinical outcomes.

Method:
A retrospective cohort analysis of adults diagnosed with CAP (2019–2020) via chest x-ray, using Maccabi Health Group data in Israel. Patients were categorized as healthy or non-healthy, and adherence was assessed against guidelines. Outcomes were defined as treatment success or failure, with failure including antibiotic switching or hospitalization. Analyses compared outcomes by antibiotic type, adherence, and patient characteristics.

Results:
Of 3,014 patients, 54% received non-guideline-concordant treatment. Guideline adherence significantly reduced hospitalization rates in older, medically complex patients (OR 0.27–0.71). In other groups, adherence did not significantly affect hospitalization rates, which were low (3%). Notably, 60% of patients on non-adherent treatments were prescribed antibiotics suited for different clinical profiles. Healthy patients (ages 18–39, 40–65) on non-guideline treatments had fewer antibiotic switches (OR 2.79 [1.79–4.33], 3.12 [2.14–4.54]).

Conclusions:
Physicians frequently deviate from CAP guidelines, often prescribing broad-spectrum antibiotics without improving outcomes like hospitalization rates. Non-adherence was linked to worse outcomes in older, medically complex patients. Reduced antibiotic switching in healthy patients on non-adherent treatments may reflect the broad-spectrum nature of these antibiotics but requires further study. Current evidence underscores the need to improve guideline adherence to optimize CAP management and address barriers to compliance.

Points for discussion:
How can outpatient guideline adherence be improved?

What drives antibiotic switching decisions?

What research is needed to compare first-line treatments?

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Freestanding Paper / Finished study

Predicting Primary Care Visit Length in Israel: A Machine Learning Approach to Optimize Clinic Operations

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Keywords: machine learning; primary care; visit length prediction; healthcare operations; scheduling optimization; clinical efficiency

Background:
: Inefficient clinic scheduling in primary care contributes to extended wait times, compromising patient satisfaction and physician productivity. While previous research has identified visit length variability as a key factor, traditional prediction methods fail to capture the complex interplay of factors affecting visit duration. Machine learning approaches offer potential solutions for optimizing clinical operations through improved prediction accuracy.

Research questions:
Can machine learning algorithms effectively predict primary care visit length using electronic health record data, and what are the key determinants influencing visit duration in Israel's primary care setting?

Method:
A retrospective cohort study analyzed electronic health record data from Clalit Health Services between January 2021 and August 2023. The dataset included adult patient visits (n=1,500,000) to primary care physicians. Features included socio-demographic data, digital literacy indicators, visit characteristics, medical history, and physician visit length patterns. LightGBM regressor algorithm was employed with 50-100 predictors, using root mean squared error (RMSE) as the primary evaluation metric. Models were trained on 70% of data (2021-mid-2022) and validated on 30% (mid-2022-2023).

Results:
The predictive model demonstrated improved accuracy over the baseline constant prediction (RMSE 5.27 vs 6.09 for frontal visits; 4.08 vs 5.62 for telephone visits). Physician-specific historical visit patterns emerged as the strongest predictors. Mean visit durations were 10.1±6.1 minutes for frontal visits and 6.5±4.3 minutes for telephone consultations. Model performance varied by visit duration category, with better predictions for visits between 5-15 minutes compared to extremely short (<5 minutes) or long (>20 minutes) visits.

Conclusions:
Machine learning approaches can improve visit length prediction accuracy compared to standard scheduling methods, though prediction remains challenging for visits at duration extremes. Findings suggest that physician practice patterns are more influential than patient characteristics in determining visit length, highlighting the importance of provider-specific scheduling strategies.

Points for discussion:
How might these findings inform the development of personalized scheduling systems in primary care?

What role could automated prediction tools play in optimizing clinic workflow without compromising care quality?

How can we balance improved operational efficiency with the need for flexible visit durations in complex cases?

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Freestanding Paper / Finished study

Socio-Demographic Factors of Childhood Vaccine Hesitancy in Albania

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Keywords: Socio-demographic factors, vaccine hesitancy, childhood vaccination, Albania

Background:
Vaccine hesitancy (VH) poses a significant threat to global health. VH in Albania has increased in the last decade. According to Albania Demographic and Health Survey immunization rates have declined from 94% in 2008-2009 to 75% in 2017-2018. The current literature on socio-demographic factors influencing childhood VH in Albania is limited and this study aims to provide this knowledge.

Research questions:
This study aims to assess all legal caregivers' socio-demographic factors and their influence in vaccine hesitancy and refusal.

Method:
A total of 4082 Albanian legal caregivers participated in this cross sectional study. The validated and approved questionnaire consists of questions on: socio-demographic data, behavior and attitude towards vaccines, and beliefs in the safety and efficacy of vaccines. This anonymous questionnaire was randomly given to legal caregivers of children 0-18 years old in randomly selected health centers. Frequencies, Chi square, Fisher's exact test and Logistic binary regression were used for the statistical analysis.

Results:
Regression analysis identified marital status (single, widowed, separated, or divorced) (OR 1.91, 95% CI 1.37-2.66), urban residency (OR 1.7, 95% CI 1.43-2.03), having more than four children (OR 10.02, 95% CI 5.21-19.28) , high education or doctorate education (OR 1.99, 95% CI 1.16-3.43) , very poor income (OR 13.82 , 95% CI 6.96-27.49) , Roma ethnicity (OR 18.03, 95% CI 8.20-39.63), Evangelical Christians (OR=3.33 , 95% CI 2.33-4.76) or Muslims (OR=1.33 95% CI 1.06-1.69) as significant predictors of VH . Consulting a pediatrician significantly increases the odds of parental VH/refusal by 1.88 (95% CI 1.61-2.21).

Conclusions:
Socio-demographic factors are significant predictors of parental VH in Albania. These insights can lead public health decision-makers in targeting hesitant parent groups and developing educational interventions that address specific barriers and concerns, aiming to enhance caregivers' knowledge, awareness, and acceptance of vaccinations.

Points for discussion:
1. Which socio-demographic factors are significant predictors of childhood VH in your country?

2. What are some similarities and differences among related VH socio-demographic factors in your country?

3. What are some targeted interventions you use to improve childhood VH in your country?

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