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**The European Rural and Isolated Practitioners Association**

# **11<sup>th</sup> EURIPA Rural Health Forum**

**Catania, Sicilia, Italy**

**October 6–8 2022**

**ABSTRACT BOOK**





In Memoriam of Berit Hansen  
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† July 29, 2022

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## Introduction

The COVID-19 pandemic, which has severely stricken the world in 2020 and in 2021, and which is not completely defeated, has not spared rural areas. Even the measures to mitigate the effect of the pandemic, lockdown, social distancing, and mass vaccinations have posed huge challenges to rural primary care.

We are interested in understanding if we are now more prepared for a future crisis which might be not only a pandemic but also which could be related, for example, to climate change.

Along with the main theme of course we are also interested in the classical theme of rural primary care.

Retaining young general practitioners in rural areas is one of the main visions of EURIPA. Preserving our beautiful genuine rural villages, our mountains and little islands from abandonment needs also the provision of a good quality-primary care. The massive emigration of population from our calm rural areas to troubled suburban “banlieu” with high social disenfranchisement is one of the worst possible future scenarios, which somewhere and sometimes is already happening, creating serious social problems. Providing good healthcare in rural areas is not only a health problem but also a public policy problem.

So far, rural doctors have been less active in research. Barriers include lack of time, long distance from other colleagues and the feeling of isolation. We think that the advent of new technologies such as fast internet connections, smartphones, apps, and social media may help in everyday practice and alleviate this feeling of isolation. Some of the potentially negative aspects of working in rural and mountain areas, such as high workload, which sometimes worry the new generations, may, on the contrary, be stimulating and emotionally and professionally rewarding.

Rural doctors have a great potential to contribute to scientific research, but they often underestimate it. The WONCA Europe definition of our discipline states that doctors when dealing with patients “integrate physical, psychological, social, cultural and existential factors, utilizing the knowledge and trust engendered by repeated contacts”. What is better than a rural setting to explore (and research on) competences like community orientation, person-centered care and holistic modelling?

The EURIPA vision for the future rural GPs is not one of someone who is always complaining because of the lack of facilities and the feeling of isolation, but of someone who is proud to be a rural family doctor and trying to make to most of it every day.

Dr. Ferdinando Petrazzuoli, chair of the Scientific Committee

# Program of the 11<sup>th</sup> EURIPA Rural Health Forum

THURSDAY October 6, 2022

Hours	Main Room	Small Room
9:30–12:00	<b>EURIPA Executive Committee and International Advisory Board Joint meeting</b>	–
12:00–14:00	<b>Registration</b>	–
14:00–14:45	<b>Official opening ceremony</b> Oleg Kravtchenko, President of EURIPA Rosario Falanga, EURIPA Forum Organizing Committee Karen Flegg, President elect of WONCA World (online) Prof. Pietro Castellino, Dean School of Medicine University of Catania – lecture: – Management of renal failure in an outpatient setting	–
14:45–16:00	<b>Oral presentations</b> Session I <i>Clinical practice</i> Chairs: Natasa Mrduljaš-Đujić, Ferdinando Petrazzuoli OC 30 Telecare for a physiological pregnant woman could help to compensate for health inequalities in rural and excluded areas OC 21 Management and knowledge of soft tissue tumors/sarcoma: Update of primary care physicians. OC 33 Basic notions about the use of dermatoscopy in primary care OC 15 Screening for Actinic Keratosis in a Village in the Interior of Portugal OC 8 Utilization of medical devices by GPs in Hungary: A nationwide study	<b>Workshop 1</b> Patrick Ouvrard – Optimize prescription avoid shortages and fight against antibiotic resistance
16:00–16:30	Coffee break	
16:30–17:45	<b>Oral presentations</b> Session II <i>COVID-19</i> Chairs: Miriam Dolan, Filippo Piana OC 25 Medical coordinator role in Poland in the light of COVID-19 crisis OC 31 Do we have to give up the preventive medical services during a lockdown/crisis period? OC 12 Rurality and vaccine hesitancy in a probability-based cross-sectional survey of South Tyrol, Italy OC 17 The challenge of the COVID-19 pandemic for primary care physicians/general practitioners in Germany OC 20 Impact of COVID-19 on out-of-hours service between an urban and a rural area in a District of Azienda Sanitaria Universitaria Giuliano-Isontina, Friuli Venezia Giulia, Italy	<b>Workshop 2</b> Rosario Falanga, Anette Fosse, Markus Hermann, Ferdinando Petrazzuoli, Kateřina Javorská, David Halata, Natasa Mrduljaš, Sehnaz Hatipoğlu – Family medicine: Describing and mapping the pro and cons of working in rural areas in different European countries
17:45–19:00	<b>Rural Café</b> Chair: Oleg Kravtchenko	<b>Workshop 3</b> Mihai Iacob – POCUS: The modern tool of the future clinical ultrasound examination that could apply to future European primary healthcare
19:15	Welcome reception at the Museum Terrace	



## FRIDAY October 7, 2022

Hours	Main Room	Small Room
9:00–9:45	<p><b>Keynote address</b>            Prof. Shlomo Vinker, WONCA Europe President            – Innovations in family medicine and the implication to rural and remote primary care            Lilian Dudley, Professor Emeritus, Stellenbosch University, South Africa            and Theadora Swift Koller, Senior Technical Advisor for Health Equity, WHO Headquarters            – Emerging findings from a WHO-commissioned scoping review on COVID-19 Preparedness and Response in Rural Areas of Low, Middle and High Income Countries</p>	–
9:45–11:00	<p><b>Oral presentations</b>            Session III  <b>Cardiovascular diseases</b>            Chairs: Oleg Kravtchenko, Rosario Falanga            OC 9 AF-React study: Evidence of under and overtreatment in atrial fibrillation management. A real-world study in northern Portugal            OC 18 The difference in the assessment on cardiovascular risk factors by rural and urban general practitioners in Latvia, Portugal, Norway, and Russia: A qualitative study            OC 13 Hypertension, mild-altitude physical activity, wellbeing and COVID-19: A survey in Veneto region            OC 29 Analysis of the statin prescription in elderly patient in a rural healthcare center</p>	<p><b>Workshop 4</b>            Miriam Dolan            – Strengthening the community of practice of rural educators in general practice</p>
11:00–11:30	Coffee break	
11:30–12:45	<p><b>Oral presentations</b>            Session IV  <b>Practice organization</b>            Chairs: Kateřina Javorská, Andrea Balbarini            OC 19 The lack of GPs in Italy and possible solutions in rural areas: The Lama Mocogno and Polinago experience            OC 10 What role do patients prefer in medical decision-making? A population-based nationwide cross-sectional study            OC 26 Health care organization in Poland in the light of the refugee crisis related to the military conflict in Ukraine            OC 34 How to set up group consulting            OC 6 Analysis of the internal framework of the newly established Health Center of the Orthodox Church in Kinshasa, Democratic Republic of Congo</p>	<p><b>Workshop 5</b>            Canan Tuz, Hande Yasar, Ismail Can Akkas, Kaan Emre Umut, Yesim Uncu            – Rural health education sample for undergraduate medical students: CADIR</p>
12:45–14:45	Free time for lunch	
14:45–16:00	<p><b>Oral presentations</b>            Session V  <b>Research</b>            Chairs: Cristina Barbu, Giuseppe Distefano            OC 23 Health screening of children in rural community in a Turkish province: Cross-sectional research            OC 22 Peer group learning evaluation of rural health practice in family medicine: A thematic analysis            OC 2 Late onset hypogonadism affects only elderly men with comorbidities            OC 1 Senile dementia: An observational study in 2 nursing homes in rural Italy</p>	<p><b>Workshop 6</b>            Miriam Dolan, Ferdinando Petrazzuoli, Jane Randall-Smith, Joyce Kenkre, Joanne Robins, Nataša Mrduljaš-Đujić, Josep Vidal-Alaball            – Implementing social prescribing in your practice and community</p>
16:00–17:00	<b>Five best posters – messages to take home</b>	
17:00–18:00	<p><b>Presentation of the XII Conference in Călimănești–Căciulata (Romania) – Cristina Barbu</b></p> <p><b>Presentation of 28<sup>th</sup> WONCA Europe Conference in Brussels (Belgium) from 7 to 10 June 2023 –Ferdinando Petrazzuoli</b></p> <p><b>Closing ceremony</b></p>	
18:00–19:30	<b>EURIPA Annual General Meeting 2022 – only for EURIPA members</b>	
20:30	Rural dinner (registration required)	

## SATURDAY October 8, 2022

9:00–12:00	Practice visits on appointment and registration
12:00–13:30	Free time for lunch
13:30–24:00	Syracuse and Ortygia tour on registration

## Contents

### Oral presentations

- 15 Rosario Falanga, Giulia Cesca  
**Senile dementia: An observational study in 2 nursing homes in rural Italy**
- 16 Rita Pozarska, Anatolijš Pozarskis, Lubova Baranovska  
**Late onset hypogonadism affects only elderly men with comorbidities**
- 17 Michael Dandoulakis, Lykourgos Christos Alexakis, Dionysia Filaditaki, Theodoula Adamakidou  
**Analysis of the internal framework of a newly established health center of the Orthodox Church in Kinshasa, Democratic Republic of Congo**
- 18 Ábel Perjés, Katalin Dózsa, Fruzsina Mezei, Tamás Tóth, Péter Pollner  
**The use of medical devices by GPs in Hungary: A nationwide study**
- 19 Susana Silva Pinto, Andreia Teixeira, Teresa S. Henriques, Hugo Monteiro, Carlos Martins  
**AF-React study: Evidence of under and overtreatment in atrial fibrillation management. A real-world study in northern Portugal**
- 20 Micaela Gregório, Andreia Teixeira, Teresa S. Henriques, Rosália Páscoa, Sofia Baptista, Rosa Carvalho, Carlos Martins  
**What role do patients prefer in medical decision-making? A population-based nationwide cross-sectional study**
- 21 Verena Barbieri, Christian J. Wiedermann, Stefano Lombardo, Barbara Plagg, Timon Gaertner, Dietmar Ausserhofer, Adolf Engl, Giuliano Piccoliori  
**Rurality and vaccine hesitancy in a probability-based cross-sectional survey of South Tyrol, Italy**
- 22 Francesco Trevisan, Samuele Fait, Elena Pettinà, Susi Barollo, Raffaele Pezzani  
**Hypertension, mild-altitude physical activity, wellbeing and COVID-19: A survey in Veneto region**
- 23 Alexandra Soares, Jorge Bruno Pereira, Román Márquez de La Peña  
**Screening for actinic keratosis in a village in the interior of Portugal**
- 24 Markus Herrmann  
**The challenge of the COVID-19 pandemic for primary care physicians/general practitioners in Germany**
- 25 Kristīne Kalniņa, Ilze Skuja  
**The difference in the assessment of cardiovascular risk factors by rural and urban general practitioners in Latvia, Portugal, Norway and Russia: A qualitative study**
- 26 Sara Fantini, Andrea Balbarini, Anna Franzelli, Sergio Rovesti  
**The lack of GPs in Italy and possible solutions in rural areas: The Lama Mocogno and Polinago experience**
- 27 Riccardo Lucis, Elena Revelant  
**Impact of COVID-19 on out-of-hours services between an urban and a rural area in a District of ASUGI, FVG, Italy**
- 28 Raquel Gracia-Rodríguez, Ignacio Jimena-Medina, Fernando Leiva-Cepas  
**Management and knowledge of soft tissue tumors/sarcoma: Update of primary care physicians**
- 29 Canan Tuz, Hande Yasar, Kaan Emre Umut, Ismail Can Akkas, Okan Can, Yesim Uncu  
**Peer group learning evaluation of rural health practice in family medicine: A thematic analysis**
- 30 Canan Tuz, Hande Yasar, Ismail Can Akkas, Kaan Emre Umut, Yesim Uncu  
**Health screening of children in rural community in a Turkish province: Cross-sectional research**
- 31 Marika Guzek, Małgorzata Kalisz, Jolanta Michałowska, Anna Kordowska, Artur Prusaczyk, Magdalena Bogdan  
**The medical coordinator role in Poland in the light of the COVID-19 crisis**

- 32 Maciej Prusaczyk, Tomasz Strzelczyk, Artur Prusaczyk, Paweł Żuk, Monika Golańska, Katarzyna Rubinkiewicz  
**Health care organization in Poland in the light of the refugee crisis related to the military conflict in Ukraine**
- 33 María Jaime Azuara, Carolina Navas Aller, Yolanda González Silva, Raisa Álvarez Paniagua  
**Analysis of statin prescriptions in elderly patients in a rural health center**
- 34 Artur Prusaczyk, Ewa Prokurat, Maciej Prusaczyk, Damian Chaciak, Tomasz Włodarczyk, Mariusz Chrzanowski, Sylwia Szafraniec-Buryło  
**Telecare for pregnant women could help to compensate for health inequalities in rural and excluded areas**
- 35 Cristina Vasilica Barbu, Gheorghe Gindrovel Dumitra  
**Do we have to give up preventive medical services during a lockdown/crisis period?**
- 36 Raquel Gracia-Rodríguez, Raisa Álvarez Paniagua  
**Basic dermatoscopy in primary care**
- 37 Miriam Dolan, Evelyn Hehir  
**How to set up group consulting**

## Poster presentations

- 38 Josep Vidal-Alaball, Maria A. Barceló Rado, Maria Homs Riba, Héctor Pifarré Arolas, Catalina Queralt Miró, Marc Saez Zafra, Anna Berenguera Ossó, Anna Ruiz Comellas, Aina Fuster Casanovas, Anna Ramirez Morros, Francesc Lopez Seguí  
**The indirect impact of the pandemic: Determinants and consequences of access to public primary care services during the COVID-19 pandemic**
- 39 Katrina Priede, Linda Reicle  
**Phytophotodermatitis caused by hogweed sap in family doctor's practice: A clinical case**
- 41 Reicle Linda, Priede Katrina  
**Herpes zoster in elderly: A case report**
- 43 Darinka Punosevac, Milena Kostic  
**Narcissus: Humane center for cancer patients and their families**
- 44 Mária Matusová, Tomáš Matus  
**How to persuade health insurance companies to support the prevention of prostate cancer primarily at GP clinics in Slovakia**
- 45 Madara Laicane, Liga Kozlovska, Sandra Gintere, Gunta Ticmane, Ainis Dzalbs, Maija Kozlovska  
**Early diagnostics of oncological diseases in general practice throughout the course of the COVID-19 pandemic**
- 46 Canan Tuz, Hande Yasar, Ismail Can Akkas, Kaan Emre Umut, Yesim Uncu  
**Self-assessment of medical students among rural health experience: Cross-sectional study**
- 47 Maija Kozlovska, Raquel Gomez Bravo, Liga Kozlovska  
**The prevalence of microaggressions on LGBTQ+ families in Latvia and the impact in primary care from a European perspective**
- 48 Maria Cherska, Olha Haiova, Khrystyna Kukharchuk, Olena Maidaniuk, Natalia Vdovenko  
**Value of hormonal indicators in young men with metabolic syndrome**
- 50 Şehnaz Hatipoğlu, Nil Tekin, Nilgün Özçakar  
**Is it important to develop aged-friendly primary healthcare centers in aging Turkey?**
- 51 Beata Blahová, Zuzana Krištúfková, Katarína Dostálová  
**The efficiency of colorectal cancer screening in general practice**
- 52 Raquel Gracia-Rodríguez, Raisa Álvarez Paniagua, Antonio Jesús González-Porras, María Macarena Erena Casado, Concepción Herrero Santa-Cruz, Ana Luz Luque Ruano  
**A small village doctor uncovers truths**
- 54 Pilar Mayorga-Hortelano, Antonio Jesús González-Porras, Raquel Gracia-Rodríguez  
**Teamwork overcomes any problem**

- 56 Mary John-Charles Robertson  
**Adoption of telemedicine: Management of carpal tunnel syndrome in rheumatoid arthritis following COVID-19 pandemic**
- 57 Alexandra Soares, Jorge Bruno Pereira, Román Márquez de La Peña  
**Anthraxis: When forests fires strike back**
- 58 Agnieszka Walczuk, Mariusz Zamyłko, Paweł Żuk, Artur Prusaczyk, Leszek Średziński, Tomasz Włodarczyk, Magdalena Bogdan  
**The impact of medical staff competencies on salary calculation in primary care**
- 59 Magdalena Bogdan, Artur Prusaczyk, Izabela Norek, Szymon Piątek, Jack Gronwald, Sabina Karczmarz  
**Appliance of social marketing in prevention of gynecological cancers after pandemic COVID-19**
- 60 Paweł Żuk, Paula Roguska, Sabina Karczmarz, Artur Prusaczyk, Magdalena Bogdan  
**The relationship of lifestyle and attitude towards medical treatment and COVID-19 vaccinations**
- 61 Eva Kozub, Patrick Ouvrard, Jean-Pierre Jacquet  
**One health: co-benefits for patient and planet**
- 62 Raisa Álvarez Paniagua, Celia Gutiérrez Pasalodos, Gema Ruiz López del Prado, Juan Manuel Garrote Díaz  
**Pilot project: Influence of diet and physical activity in pregnant women from rural areas**
- 64 Michael Dandoulakis, Lykourgos Christos Alexakis, Dionysia Filaditaki, Theodoula Adamakidou  
**PEST analysis for the deployment of an urban health center in Kinshasa, Democratic Republic of Congo**
- 65 Michael Dandoulakis, Lykourgos Christos Alexakis, Dionysia Filaditaki, Theodoula Adamakidou  
**SWOT analysis for the deployment of an urban health center in Kinshasa, Democratic Republic of Congo**
- 66 Rosario Falanga, Ferdinando Petrazzuoli, Andrea Posocco, Giulia Schiavi  
**The Blue Book and the alliance project for the reform of primary care in Italy: A focus on rural setting**

## Workshops

- 67 Patrick Ouvrard  
**Optimize prescription avoid shortages and fight against antibiotic resistance**
- 68 Rosario Falanga, Anette Fosse, Markus Hermann, Ferdinando Petrazzuoli, Kateřina Javorská, David Halata, Natasa Mrduljaš, Sehnaz Hatipoğlu  
**Family medicine: Describing and mapping the pro and cons of working in rural areas in different European countries**
- 69 Mihai Iacob  
**POCUS: The modern tool of the future clinical-ultrasound examination that could apply to future European primary healthcare**
- 71 Canan Tuz, Hande Yasar, Ismail Can Akkas, Kaan Emre Umut, Yesim Uncu  
**Rural health education sample for undergraduate medical students: CADIR**
- 72 Miriam Dolan  
**Strengthening the community of practice of rural educators in general practice**
- 73 Miriam Dolan, Ferdinando Petrazzuoli, Jane Randall-Smith, Joyce Kenkre, Joanne Robins, Nataša Mrduljaš-Đujić, Josep Vidal-Alaball  
**Implementing social prescribing in your practice and community**



# Senile dementia: An observational study in 2 nursing homes in rural Italy

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## Abstract

**Background.** As the population ages, dementia is a growing problem worldwide and has been defined as a public health priority by the WHO. The prevalence of dementia in industrialized countries is about 8% in subjects over 65 years of age and rises to over 20% after the age of 80. The family doctor is very often the first health care personnel to whom the person complaining of cognitive problems or their family caregiver can refer to for a diagnostic workup and the implementation of a care plan.

**Objectives.** To assess the prevalence of dementia in a cohort of institutionalized patients in rural Italy. The study was also aimed at evaluating the use of blood tests and instrumental examinations, specialist consultations and pharmacological treatments, as well as the presence of inappropriate prescriptions and comorbidities.

**Materials and methods.** We conducted a retrospective observational study, analyzing the medical records of a cohort of 181 patients from 2 nursing homes in the municipalities of Aviano and Sacile in the province of Pordenone, North East Italy, as for December 31, 2019. The average age of the population was 87 years (range: 65–103 years), among which 86% were females. All patients with any diagnoses of dementia reported in the medical record were included in the study.

**Results.** The prevalence of dementia was 69% of the studied patients, MMSE was performed in 28.8%, an ECG in 88%, a CT scan of the brain in 45.6%, a TSA echocolor Doppler in 6.4%, and 1 neurological specialist consultation in 37.5%. Antipsychotics were administered to 39% of patients and benzodiazepines to 32.8%.

**Conclusions.** The prevalence of dementia was very high (69%), confirming the consideration that dementia is often the main cause of admission into the nursing home. The high use of antipsychotics and benzodiazepines is of concern due to the risk of potential adverse events according to the Beers criteria. Adequate therapeutic reconciliation and deprescribing would be helpful in reducing inadequate prescriptions by implementing non-drug treatments.

**Key words:** COVID-19, primary health care, public health, vulnerability

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# Late onset hypogonadism affects only elderly men with comorbidities

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## Abstract

**Background.** Late-onset hypogonadism (LOH) is a clinical and biochemical syndrome associated with age, and features typical symptoms and reduced blood testosterone level. Amongst males aged over 30 years, the incidence of androgen deficiency is 7–30%.

**Objectives.** To investigate the frequency of LOH among healthy elderly men, and among men with different comorbidities.

**Materials and methods.** 1852 men aged 40–70 years attending primary health care filled in the Aging Male Symptoms (AMS) scale questionnaires. Furthermore, 1340 men with positive AMS were invited to participate in the study, and 1222 men agreed. These men were investigated by the general practitioner, and provided morning blood samples for general blood tests, lipid profile, glucose levels, and assessment of both total and free testosterone (T) levels. The LOH was diagnosed if total T  $\leq$  3.46 ng/mL or free T  $\leq$  72 pg/mL.

**Results.** Out of 1222 men, 820 men were found to have different comorbidities (chronic obstructive pulmonary disease (COPD), erectile dysfunction (ED), compensated type II diabetes, metabolic syndrome), and 402 were found to be healthy. The LOH was detected in 55% of all studied men. Only 5% of healthy men were diagnosed with LOH, whereas among men with comorbidities, 79% could be diagnosed with LOH.

**Conclusions.** The AMS scale is not very sensitive in detecting LOH since 33% of patients with positive AMS could not be diagnosed with LOH according to T levels. The LOH is infrequent (5%) among healthy men at the age of 40–70, whereas it can be found in more than 2/3 of males in such age range suffering from different comorbidities.

**Key words:** hypogonadism, primary care, men's health

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# Analysis of the internal framework of a newly established health center of the Orthodox Church in Kinshasa, Democratic Republic of Congo

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## Abstract

**Background.** The Orthodox Christian Church has established a health center (HC) to meet the population health needs in a rural district of Kinshasa (the capital of Democratic Republic of Congo), which has a high prevalence of tropical, infectious and poverty-related diseases.

**Objectives.** The aim of this study was to analyse the internal framework of the HC facility before it becomes operational.

**Materials and methods.** The 7S analysis is a useful tool focusing on 7 key internal elements in an organizational design: strategy, structure, systems, shared values, style, staff, and skills. It puts the emphasis on the interaction between the 7 elements ensuring the effective operation of an organization.

**Results.** Strategy of the Kinshasa HC is to improve the health services in the area. The focus is high quality of services with the lowest possible cost for the end user. Systems concern the processes of financing, referral, training, evaluation, and organization of the daily operation of the HC. Structure is determined by the organization chart that identifies the departmental division and consolidation of tasks. Staff will include initially a doctor, a nurse, 1 administrator and 1 cleaning person. The training and specialization of health professionals will follow international standards. Administration style is expected to be cooperative between the team providing healthcare and the supervising team of the Orthodox Church. Core element of the analysis is the shared values as well as the vision and mission of the HC, which need to be shared by both staff and management. The experience gained from the establishment of other Orthodox Church HCs in the area was also used for the design of Kinshasa HC.

**Conclusions.** The planning and operation of a HC is a complex process that requires a structured evaluation of the organization's internal elements and an analysis of their interactions.

**Key words:** rural healthcare, community care, internal framework, 7S analysis technique

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# The use of medical devices by GPs in Hungary: A nationwide study

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## Conflict of interest

None declared

## Abstract

**Background.** Given the ever-growing burden of non-communicable diseases (NCDs), there is an increased expectation of general practitioners (GPs) to provide efficient standardized preventive care. Scientific and technological advancement has resulted in a wide variety of possible medical devices that meet the recommendations of evidence-based guidelines and that can be used to deliver this. In Hungary, in the last 2 decades, voluntary GP clusters have formed through specific, initially incentivized programs that focused on utilizing various medical devices in primary care.

**Objectives.** The aim of this study was to gain insight into the distribution and use of medical devices in primary care in Hungary. It provides further understanding of the necessary resources, the problems and barriers, as well as potential solutions and further development direction to enhance the delivery of efficient, standardized preventive care activity in primary care, and the effect of the GP clusters programs.

**Materials and methods.** Data was collected using an online self-assessment questionnaire in a non-representative manner from 1800 Hungarian registered GPs (27.7% of all Hungarian GPs). Descriptive statistics, Wilcoxon's test and  $\chi^2$  test were applied to analyze the ownership and use of 32 types of medical devices and the characteristics of the GP practices, focusing on the differences in rural and urban practices and between traditional and GP-cluster practices.

**Results.** The overall availability and accessibility of medical devices was found to be limited, with rural mixed practices owning the most medical devices (6.86 in average), while urban adult or pediatric GP practices averaging significantly less (average 5.85 and 4.98, respectively). The practices that had been involved in setting up GP clusters in the last decade reported a wider range and significantly more intensive use of evidence-based technologies (average number of devices: 5.42 versus 7.56,  $p < 0.001$ ), but even the GPs in the clusters are not using some of their devices due to the lack of financial incentives, problems with competence or due to the time constraints of everyday practice. There is a list of medical devices (e.g., various point of care testing devices) that almost half of the respondents would add to their inventory if they received a financial incentive to use it. The GPs involved in the GP-cluster programs showed significantly greater willingness for sharing relatively expensive, labor-intensive technologies ( $\chi^2 = 24.5$ ,  $p < 0.001$ ).

**Conclusions.** The availability of medical devices should increase in order to deliver high-quality, efficient, standardized preventive care in primary care in Hungary. The GP-cluster programs resulted in access to a wider variety of medical devices, and there was an increased willingness for collaboration. Increased use of medical devices could be achieved by performance-based additional financial incentives.

**Key words:** medical devices point of care test, primary healthcare

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# AF-React study: Evidence of under and overtreatment in atrial fibrillation management. A real-world study in northern Portugal

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## Conflict of interest

None declared

## Abstract

**Background.** Atrial fibrillation (AF) is a risk factor for stroke, and anti-coagulation is recommended to mitigate this risk. However, anti-coagulation is itself not without risks.

**Objectives.** To determine the prevalence of AF and to assess how these patients are being cared for – which anticoagulants are prescribed and whether they meet the recommended dosages.

**Materials and methods.** Design: Retrospective longitudinal study.

**Setting.** This study was conducted in the Regional Health Administration of Northern Portugal.

**Participants.** This study used a database that included 63,526 patients with code K78 of the International Classification of Primary Care between January 2016 and December 2018.

**Results.** The prevalence of AF among adults over 40 years in the northern region of Portugal was 2.3% in 2016, 2.8% in 2017 and 3.0% in 2018. From a total of 63,526 patients, 95.8% had an indication to receive anticoagulation therapy. Of these, 44,326 (72.9%) are treated with anticoagulants: 17,936 (40.5%) were prescribed vitamin K antagonists (VKAs) and 26,390 (59.5%) non-VKA anticoagulants. A point to note is that 2688 patients of the total (4.2%) had no indication to receive anticoagulation therapy. Of these 2688 patients, 1100 (40.9%) were receiving anticoagulants.

**Conclusions.** The prevalence of AF in Portugal is now is 3.0%. Here, we report evidence of both undertreatment and overtreatment. Although having an indication, a considerable proportion of patients (27.1%) are not anticoagulated, and among patients with AF without an indication to receive anticoagulation therapy, a considerable proportion (40.9%) are receiving anticoagulants. The AF-React study highlights relevant conclusions to note in Portugal and follows real-world studies in patients with AF in Europe, presenting some data not yet studied.

**Key words:** atrial fibrillation, anticoagulants, K antagonists (VKAs), new oral anticoagulants

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# What role do patients prefer in medical decision-making? A population-based nationwide cross-sectional study

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## Conflict of interest

None declared

## Abstract

**Background.** In theory, the consultation model has evolved from a paternalistic perspective towards the current approach of integrating patient preferences and values while engaging patients actively in their healthcare decisions.

**Objectives.** To assess patients' preferred roles in healthcare-related decision-making in a representative sample of the Portuguese population.

**Materials and methods.** Design: Population-based nationwide cross-sectional study.

**Setting and participants.** A sample of Portuguese people aged  $\geq 20$  years were interviewed using a face-to-face questionnaire with the Problem-Solving Decision-Making scale.

**Outcomes.** The primary outcome was patients' preferred role for each vignette of the problem-solving decision-making scale. Sociodemographic factors associated with the preferred roles were the secondary outcomes.

**Results.** A total of 599 participants (20–99 years, 53.8% women) were interviewed. Three vignettes of the Problem-Solving Decision-Making scale were compared: morbidity, mortality and quality of life. Most patients preferred a passive role for both the problem-solving and decision-making components of the scale, particularly for the mortality vignette (66.1% in the analysis of the 3 vignettes), although comparatively more opted to share decisions in the decision-making component. For the quality of life vignette, a higher percentage of patients preferred a shared role (44.3%) compared with the other 2 vignettes. In the problem-solving component, preferences were significantly associated with area of residence ( $p < 0.001$ ) and educational level ( $p = 0.013$ ), while in the decision-making, component preferences were associated with age ( $p = 0.020$ ), educational level ( $p = 0.015$ ) and profession ( $p < 0.001$ ).

**Conclusions.** In this representative sample of the Portuguese mainland population, most patients preferred a practitioner-controlling role for both the problem-solving and decision-making components. In a life-threatening situation, patients were more willing to let the doctor decide. In contrast, in a less serious situation, there is a greater willingness to participate in decision-making. We have found that shared decision-making is more acceptable to better educated patients in the problem-solving component and to people who are younger, better educated and employed, in the decision-making component.

**Key words:** atrial fibrillation, anticoagulants, K antagonists (VKAs), new oral anticoagulants

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# Rurality and vaccine hesitancy in a probability-based cross-sectional survey of South Tyrol, Italy

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## Conflict of interest

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## Abstract

**Background.** Demographic determinants of the state of indecision and uncertainty about COVID-19 vaccination that emerged in the literature include rurality. Regional features affect vaccine hesitancy. In the 1<sup>st</sup> and 2<sup>nd</sup> pandemic year, the vaccination rate in South Tyrol was the lowest in all of Italy.

**Objectives.** This study aimed to assess vaccine hesitancy as well as its sociodemographic and clinical determinants in a general population sample 3 months after the launch of the vaccination program in South Tyrol.

**Materials and methods.** A cross-sectional survey was conducted on a probability-based sample of 1425 citizens from South Tyrol in March 2021. The questionnaire collected information on socio-demographics including urban or rural residency, comorbidities, COVID-19-related experiences, conspiracy thinking, and likelihood of accepting the national vaccination plan. Multiple logistic regression analyses were performed to identify the significant differences in predictors of vaccine hesitancy.

**Results.** Altogether, significant predictors for vaccine hesitancy were found to be higher age, high educational standard, chronic disease, trust in institutions, trust in the national vaccination plan, no trust in conspiracy theories, and higher frequency of information search. A total of 17.6% of the rural sample ( $n = 746$ ) reported vaccine hesitancy, which was significantly higher ( $p = 0.013$ ) than the observed 12.8% hesitancy in urban residents ( $n = 546$ ). Compared to the urban population, rural residents were less likely to have higher education; more often reported German or Ladin as their mother tongue than Italian or other minority languages; more frequently lived in households with children under 6 years of age, and their economic situation was worse; rural residents were less likely to suffer from chronic diseases and less likely to be affected by deaths from COVID-19 of close relatives; their trust in the pandemic management by the Ministry of Health or Italy's 'Istituto Superior di Sanità' was lower, as was their trust in local authorities, civil protection and healthcare facilities. No significant differences between rural and urban residents were observed for age, gender, work in health professions, COVID-19 infection rates, trust in media, and conspiracy thinking. An overall regression model and an ANCOVA model did not detect significant effects of urban/rural residence on vaccine hesitancy.

**Conclusions.** Although there was only a 4.8% absolute difference in the uncertainty about COVID-19 vaccination, there were noticeable socio-demographic disparities between urban and rural residents. Reported findings may inform public health measures targeting rural and urban populations separately when developing health communication strategies.

**Key words:** COVID-19, primary health care, public health, vulnerability

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# Hypertension, mild-altitude physical activity, wellbeing and COVID-19: A survey in Veneto region

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## Abstract

**Background.** Many people enjoy the mountains, especially during the summer season in Italy. Mainly untrained individuals and frequently with important co-morbidities including hypertension, diabetes, atrial fibrillation, etc., climb medium-height or high mountains, with a starting point on plains, during a single day.

**Objectives.** Given the altitude difference suffered by the person in a few hours, it is important to investigate the physical (i.e., hypertension) and psychological issues in people facing this challenge. In addition, making individuals knowledgeable about their health (and related risks) is another fundamental way in which a general practitioner can assist the population engaging in mountain hiking.

**Materials and methods.** During different days of the summer 2022, individuals from Veneto plain travelled to a remote region of the Asiago plateau for a hike of 3056 m with an altitude difference of 346 m, reaching the highest elevation of 2106 m. We first collected informed consent from all participants; then, blood pressure (BP), heart rate (HR) and oxygen blood saturation (SpO<sub>2</sub>) before and after physical activity were measured. Handgrip strength (HS) and anthropometric characteristics were also obtained. International Physical Activity (IPAq) questionnaire, quality of life (Italian Short Form-12) questionnaire and COVID-19 survey were distributed among the participants.

**Results.** Fifty-four untrained individuals accepted to take part to the study. Median age was 62 years (range: 32–83 years), 20.4% of the participants were female, median body mass index (BMI) was 26.8 kg/m<sup>2</sup>, median BP 131.5/79.7 mm Hg, median HR 82.5 bpm, median SpO<sub>2</sub> 94.8%, and median HS 45.3 kg. A general picture from the questionnaires suggested positive wellbeing and high vitality with good social functioning, with little body pain, depression or anxiety. Past COVID-19 infection was present in 24/54 (44.4%) of participants and 50/54 (92.3%) were vaccinated. Among infected individuals, 5/24 (20.8%) reported asymptomatic infection, 19/24 (79.2%) mild effects and 1/24 (0.04%) severe effects; 12/24 (50%) fully recovered.

**Conclusions.** Mountain hiking is a popular way to spend time during summer in Veneto. For untrained comorbid people, relative risks can be observed, particularly for those affected by cardiovascular diseases. Our data suggested that elderly people hiking in medium-height mountain were aware of their psychophysical status and perceived themselves in healthy condition, even if this was not always supported by physical data (i.e., hypertension). The general practitioner can identify such individuals by controlling their blood pressure and suggest appropriate treatment.

**Key words:** comorbidity, elderly, high altitude mountain sickness

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# Screening for actinic keratosis in a village in the interior of Portugal

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## Abstract

**Background.** Actinic keratoses (AKs) are common skin lesions that arise in skin areas chronically exposed to ultraviolet (UV) radiation. They may progress to squamous cell carcinomas in 16% of cases within 1 year. Clinically, they present as erythematous scaly plaques and mainly affect face, neck, chest, back of the hands, shoulders, and scalp. Cumulative exposure to UV radiation is the main risk factor. Other factors are: advanced age, outdoor activities, geographical characteristics, exposure to artificial UV radiation, and chronic skin inflammation. Many of these factors are often present in rural populations where agriculture remains important.

**Objectives.** To identify the prevalence of pre-malignant lesions and cutaneous neoplasms in the screened population.

**Materials and methods.** A dermatological screening targeting actinic keratoses was carried out at the Alameda Health Center Extension between March and May 2022. The following criteria for inclusion in the screening were defined: age over 40 years; light skin and eye phototype; professional/leisure outdoor activities; history of intense or frequent sun exposure and sunburn, history of radiotherapy, immunosuppressive drugs, or transplantation; and history of malignant/pre-malignant skin lesions. Exclusion criteria were age over 81 years and follow-up during a dermatology consultation.

**Results.** A total of 277 individuals were observed: 151 (54.51%) were male and 126 (41.49%) were female. The main risk factor for inclusion in the screening was age. Ninety-eight cases of actinic keratosis (35.38%) were identified, and they were referred to a dermatology consultation for additional workup. In addition, 17 cases of suspicious lesions were identified, and these were also referred to a hospital consultation, with confirmation of neoplasia in 12 cases (7 basal cell carcinoma (2.53%), 3 melanoma (1.08%) and 2 squamous cell carcinoma (0.72%).

**Conclusions.** The AKs are pre-malignant lesions. Rural populations are particularly at risk for its development. It is therefore essential to raise awareness for the use of protective measures as well as to investigate lesions already established. This work made it possible to track a high number of users, treat pre-malignant lesions, preventing their evolution to a more complex pathology, and establish primary and secondary prevention programs.

**Key words:** actinic keratoses, cutaneous neoplasms, rural populations, screening

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# The challenge of the COVID-19 pandemic for primary care physicians/general practitioners in Germany

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In addition to his work as the Chair of General Practice at the University of Magdeburg, the author works as a general practitioner and psychotherapist and has experienced many of the challenges described himself in his daily practice in Berlin and in vaccination outpatient clinics.

## Abstract

**Background.** General practitioners' practices as the first port of call for health problems play a key role in the COVID-19 crisis. Their decentralized organization in Germany has helped guarantee the slower spread of infection than in other countries. The GPs are used, within their professional role, to making quick decisions in an area of uncertainty.

**Objectives.** A review of literature will provide the basis for discussion on the primary care physicians' approach to the challenges of the pandemic, the psychological stress aspects of young GPs' work, and the impressions and experiences of medical assistants.

**Materials and methods.** This work is a review of scientific literature.

**Results.** The pandemic took GPs by surprise; however, they quickly and competently faced the complex challenges, regarding not only the epidemiological aspects of the infection, but also the psychosocial consequences of the interventions requiring pandemic measures. The strain on young and prospective GPs and medical assistants became particularly clear. Family GPs also played a central communicative role as a consequence of the pandemic, which resulted in the absence of treatment routines, capacity issues and the danger of triage as the perception of crisis arose.

**Conclusions.** Established primary care structures can also be used to quickly localize sources of infection in order to initiate deliberate measures and thus contain the spread of the disease. A worsening pandemic situation must be expected at any time. For this reason, it is important to enhance the value of decentralized, outpatient medical care structures and to pay greater attention to them in advance.

**Key words:** general practice, family practices, COVID-19, SARS-CoV-2

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# The difference in the assessment of cardiovascular risk factors by rural and urban general practitioners in Latvia, Portugal, Norway and Russia: A qualitative study

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## Abstract

**Background.** Cardiovascular disease (CVD) is a leading cause of morbidity and mortality worldwide, so it is a public health priority to assess risk factors to prevent CVD. General practitioners (GPs) are primary caregivers who are first to meet the patient; therefore, they play a key role in assessing CVD risk factors and in initiating preventive measures such as smoking cessation, physical activity and exercise, blood pressure and lipid lowering therapies, and weight reduction.

**Objectives.** The aim of this study is to assess and compare the procedures and decision-making approaches followed by rural and urban GPs' when consulting patients with possible cardiovascular risk factors.

**Materials and methods.** This is a qualitative study. Literature was reviewed, and a semi-structured questionnaire was made for general practitioners to evaluate their assessment of cardiovascular risk in patients. General practitioners from Latvia, Portugal, Norway, and Russia aged 25–74 years, of both genders, were included in this study. They were interviewed face to face using the abovementioned questionnaire. The length of the interview ranged from 25 min to 40 min. Collected data were transcribed, coded into concepts, analyzed for answers, and compared between 2 subgroups – rural and urban GPs.

**Results.** Data was collected in 41 interviews: 10 interviews in Latvia, Norway and Portugal, and 11 in Russia. Six themes were selected to compare how rural and urban GPs assess cardiovascular risk–typical characteristics of patient to assess for risk factors (red flag signs), main clinical symptoms that make general practitioner perform an assessment, risk evaluation for obese patients, the frequency of CVD risk evaluation on patients in a typical GPs' working day, use of cardiovascular risk assessment guidelines, limitations and problems associated with cardiovascular risk factor assessment. In both subgroups, typical patient characteristics appeared similar – male gender, obese or overweight, smoker, with CVD in family history, elevated blood pressure, sedentary lifestyle, and changes in blood sample (high cholesterol and glucose level). In the urban GPs subgroup, mental health status and stressful lifestyle was more often mentioned as risk factors (RF) indicating that a CVD assessment should be performed. Most of the GPs in both groups tended to do assessments for all patients with complaints or red flag signs, and for patients older than 40 years at least once a year. During a typical working week, such assessment is performed in 1–4 patients, but not in healthy adults. During interviews, only a few GPs mentioned the SCORE risk prediction program or said that they assess this risk according to screening regulations. Mostly assessment is done individually depending on patient complaints or lifestyle habits due to GPs financial limitations or lack of time.

**Conclusions.** The knowledge about CVD RFs was similar in rural and urban subgroups, however, there are some differences and variations in their decision-making approaches. It may seem that differences in CVD RFs assessment among GPs could reflect their region of practice, patient population and the use of an absolute CVD or individual risk factor approach.

**Key words:** general practitioners, primary healthcare systems, cardiovascular risk factors, outpatient clinics

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# The lack of GPs in Italy and possible solutions in rural areas: The Lama Mocogno and Polinago experience

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## Abstract

**Background.** Over the last few years, Italy has been facing a dramatic lack of physicians, especially general practitioners (GPs). The whole country is characterized by this problem, especially rural, inland and mountain areas. Lama Mocogno and Polinago are 2 little villages in the province of Modena, in the Emilia-Romagna region. Both are located about 15 km from the nearest small town hospital and about 60 km from the main hospital of the province. The municipal area of both villages is 117 km<sup>2</sup> and about 4300 people live there. The altitude is from 400 m to 1300 m. The old age index (ratio of population over the age of 65 to population under the age of 5) is 1156 for Lama Mocogno and 1181 for Polinago, compared to the old age index of the province of Modena which is 594. At the end of 2021, 2 GPs retired: they had been working in Lama Mocogno and Polinago for nearly 30 years. At least 1400 people suddenly found themselves without a GP and there were no GPs available to care for these patients.

**Objectives.** The aim of this study concerns the possibility of guaranteeing primary care for people without a GP living in rural and mountain areas of the province of Modena.

**Materials and methods.** At the end of 2021, the Primary Care Department of the AUSL of Modena (Azienda Unità Sanitaria Locale, the Italian health system local organization) recruited a team of doctors. These doctors have been recruited from the USCA (Unità Speciali di Continuità Assistenziale, special units of doctors that were created during the COVID-19) and they have a particular interest in primary care. The purpose was to provide primary care to the inhabitants who remained without a GP in Lama Mocogno and Polinago. Two secretaries have been recruited as well in order to organize the patients' management. Two offices have been founded, one in Lama Mocogno and one in Polinago, with the collaboration of the mayors. A car has been made available to the doctors for home visits.

**Results.** Six young doctors (under 30 years of age) were recruited at the end of 2021. In March 2022, one of them withdrawn, but another recently graduated doctor was recruited at the same time. They are 2 female and 4 male GPs. Each one of them is available a few days per month. For this reason, a doctor working in the Primary Care Department organizes the 6 doctors' shifts and working hours every month. The office is open from Monday to Friday, 2 days in Polinago and 4 days in Lama Mocogno, with the possibility to organize home visits to fragile patients on Tuesday mornings and Thursday afternoons. The 2 secretaries work one at a time, from 8:00 AM to 1:00 PM, from Monday to Friday. From 1:00 PM to 7:00 PM a doctor is available for urgent needs. The doctors have been working for 8 months. There are certain difficulties associated with the management software: due to the ongoing law, these 6 doctors cannot use the software typically used by GPs.

**Conclusions.** As a result of this severe lack of doctors and GPs, especially in rural areas, primary care for about 1400 people is being guaranteed by this management and the organizational support for the doctors working shifts.

**Key words:** primary care, rural areas, lack of physicians

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# Impact of COVID-19 on out-of-hours services between an urban and a rural area in a District of ASUGI, FVG, Italy

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## Abstract

**Background.** The care offered by General Medicine and Primary Care, in different applications in respective European states, represents for many citizens (Cn) the most used medical assistance service. The Italian out-of-hours service (OOH), which is active every night and every weekend and holidays, represents in particular the first point of treatment of non-urgent conditions for many categories of Cn, such as the elderly, children and the poor, especially in rural areas, representing a service which prevents unwarranted access to the emergency unit (ER).

**Objectives.** The goal of our study is to evaluate the impact of COVID-19 on the workflow of the OOH services in the Isontina area of ASUGI (Friuli-Venezia-Giulia - FVG-, Italy).

**Materials and methods.** We used the contact data (ct) recorded by general practitioners (GPs) operating in OOH service in the paper and electronic registers (Continuity of Care Portal, INSIEL, FVG), specifically the total number of outpatient visits (OV), home visits (HV) and telephone calls (TC) in the period between January 1, 2019, and December 31, 2020. It was limited to the OOH offices in the Alto Isontino District (DAI): one in Gorizia (GO), located in a urban area near a hospital with ER, and the other in Cormons (Cor), located in a rural area 13 km from the ER. We used the Python development environment JupyterLab (v. 3.2.1) of Anaconda distribution and Prism 9 for MacOS from GraphPad Software, LLC for data and graph analytics.

**Results.** In OOH of Gorizia (population 38678 Cn), 135 OV, 2709 HV and 4500 TC were provided in 2019, and 72 OV, 1932 HV and 5578 TC in 2020 (total ct of 7344 and 7582, respectively), while at OOH of Cormons (27612 Cn), 1186 OV, 603 HV and 615 TC were delivered in 2019, and 636 OV, 376 HV and 913 TC in 2020 (total ct of 2404 and 1925, respectively), within a total of ct in DAI of 9748 and 9507 in the 2 years considered.

**Conclusions.** In both years in Gorizia, TC (61% and 74%) and HV (37% and 25%) prevailed over the total of the ct, followed by the OV (<2% and <1%); in Cormons in 2019, the OV (49%) prevailed, followed by TC (26%) and HV (25%), while in 2020 the TC constituted 49%, OV 33% and HV 20%. In both cases the differences were statistically significant ( $\chi^2$  test,  $p < 0.0001$ ). The variation of the total of the ct/Cn in the periods analyzed is statistically more relevant for Cormons (Fisher's exact test,  $p < 0.0001$ ) than Gorizia (Fisher's exact test,  $p < 0.0308$ ). Studying the different factors involved a 2-way ANOVA and showed the sites analyzed as the main source of variation ( $p = 0.0113$ ). In our experience, the data suggest that there has been a change and a reorganization in the workflow of OOH due to the pandemic (in line with the literature), which has led to an increase in TC and a decrease in OV and HV. Intriguingly, the demand for OV remains high in Cormons, probably due to the different geographical factors and the distribution of health resources that change access to care. In conclusion, our work underlines the importance of OOH, especially in rural areas, as the first point of care to non-urgent conditions and the care needs of citizens.

**Key words:** out-of-hours, primary care, rural medicine, COVID-19

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# Management and knowledge of soft tissue tumors/sarcoma: Update of primary care physicians

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## Abstract

**Background.** Sarcomas are tumors which originate in soft tissue, with a fatal outcome if they are not detected and a therapeutic strategy is not established as early as possible. To my knowledge, there are no studies summarizing the extent to which primary care doctors know, recognize and react to signs and symptoms of sarcoma.

**Objectives.** To evaluate the knowledge, protocols and practices of primary care doctors (comparing doctors from rural and urban areas) towards the implementation of clinical guides and diagnostic tools which may allow for early detection and treatment of sarcoma.

**Materials and methods.** This will be an observational, descriptive, cross-sectional study. For a 5% alpha-error, 3% accuracy, and a proportion of 50% it is necessary to include 1012 primary care doctors. Spanish and Andalusian family medicine members and medical residents in their specialization in family medicine will be invited to participate in the study. All the members will be contacted via the administrative departments of these associations. Once they agree to participate in the study, they will complete an online survey. A descriptive, inferential statistical analysis will be performed (bivariate and multivariate analysis, a  $p < 0.05$  will be accepted as statistically significant). In the 2<sup>nd</sup> phase, 30 participants will be randomly chosen to participate in a sarcoma-focused training, and their knowledge will be registered before and after the training. In this phase, a descriptive and inferential analysis for dependent and independent samples will be performed using parametric or non-parametric tests, as appropriate.

**Results.** We will obtain the results of the 1<sup>st</sup> phase before the EURIPA Forum in Catania commences.

**Conclusions.** The results, once published and disseminated, may be of interest so that, first of all, the Scientific Societies of Family Medicine consider the development of training activities aimed at their members, as well as feedback with associations and patient groups, which have to take center stage. Likewise, the information obtained can be transferred through action protocols and consensus documents for the health areas, establishing a direct management manual and an organized pathway with the necessary relationship between primary care doctors and hospital care.

**Key words:** sarcoma, soft tissue neoplasms, primary healthcare, general practitioner

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# Peer group learning evaluation of rural health practice in family medicine: A thematic analysis

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## Abstract

**Background.** In medical schools, it is estimated that residents spend a quarter of their time teaching students and peers, regardless of their future career goals, and value this role greatly. Junior doctors in many countries teach peers and/or junior trainees formally or informally. Peer learning is an educational model that emphasizes student-activating approach.

**Objectives.** This study aimed to investigate the evaluation of peer group learning among medical students in the rural health field in Bursa, Turkey.

**Materials and methods.** The educational event called CADIR is a weekend educational and social activity organized by medical students society sponsored by Bursa Uludag University of Medical School. During the weekend, medical students from every grade visit rural area for the purpose of providing primary health care. Two months after CADIR, the researchers conducted focus group meetings online. Of 167 medical students who attended the educational event, those eligible to express their feelings were chosen randomly. Each interview lasted approx. 60 min and was conducted by the primary researchers.

**Results.** Of the 27 medical students, 14 were in preclinics and 13 were in clinics. Approximately 55% (n = 15) were male. The analysis revealed 3 main themes: 1) educational experience, 2) effectiveness of peer group learning, 3) challenges of peer group learning, and 4) feelings about working in rural. The 1<sup>st</sup> theme concepts were experience, lack of experience and unawareness of peer group learning. The 2<sup>nd</sup> theme concepts were: interactive relationships among learners, mutual educational relationships without resistance, learning through feedback, advantage in communication skills, and participation in medical teams. The 3<sup>rd</sup> theme concepts were reliability of the information and comparison with senior doctors. The 4<sup>th</sup> theme's concepts were: respect of rural people, feeling of being a "hero", health inequality problems, and concerns of "what if I become a rural doctor?".

**Conclusions.** This study revealed the effects and challenges of peer group learning in rural communities. It is shown that the peer group learning method can be used for practicing rural healthcare in medical schools. Medical students are aware of the advantages as well as disadvantages of rural healthcare.

**Key words:** peer group learning, family medicine, medical education, rural health

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# Health screening of children in rural community in a Turkish province: Cross-sectional research

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## Abstract

**Background.** Community-based research studies are often conducted for testing various public health interventions and for creating an epidemiological evidence base for policy decisions. Rural children have a 26% greater odds of obesity, compared with urban children.

**Objectives.** The aim of this study was to determine the health problems of children living in a rural community through a health screening study.

**Materials and methods.** This is a descriptive study that was conducted on the pediatric population in a rural community of Bursa, Turkey, in June 2022. The rural community's total population was 875 citizens and only 90 of them were aged 3–18 years. The sample group of the study consisted of 46 children. Gender, age, race, ethnicity, sociality, and academic performance was asked of the parents in a face-to-face survey. The visual screening was performed by the same doctor who was specially educated for this purpose with the same device, and color blindness was measured with the Ishihara cards.

**Results.** Of the 90 children targeted for screening, 46 of their families agreed to participate (participation rate: 51.1%). The students who were assessed within the scope of the health screening were aged 3 to 16 years and 41.3% of them were female. Myopia + astigmatism refractive error was detected in 2 patients (2.2%); no refractive error was found in the remaining 11 (23.9%) children. Two (4.3%) children had color blindness and 1 (2.2%) had strabismus. Of the 26 children whose eyes were not screened before, 18 (69.2%) eye defects were detected. In addition, 2 children identified as color-blind have not been observed before. Dental caries was detected in 14 (45.2%) of those who had less than 1–3 teeth brushing per day (31 people). The findings of the screening were 10.9% thin, 10.9% very thin, 17.4% obese, and 10.9% overweight. There was a high linear correlation between the right and left ophthalmic defects ( $r: 0.44$ ). There is a significant difference between eye problems and academic performance ( $p = 0.02$ ).

**Conclusions.** Most of the children in the region with low socioeconomic status are not screened for eye health. Children were evaluated in terms of obesity and it was recommended to encourage a healthy lifestyle.

**Key words:** rural health, growth and development, health screening

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# The medical coordinator role in Poland in the light of the COVID-19 crisis

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## Abstract

**Background.** The role of medical coordinator was introduced in Polish legislation in 2014 and further described in 2015 Rapid Oncology Therapy regulation. However, the responsibilities of the coordinator were not defined precisely, which led to limiting the coordinator's role to performing administrative tasks. The importance of this role had increased during the COVID-19 pandemic.

**Objectives.** The purpose of the study was to analyze the scope of medical coordinators' responsibilities in Poland and describe the desired skill-set for the role.

**Materials and methods.** This article is based on a review of the literature on the role and responsibilities of a medical coordinator, and a search in MEDLINE (PubMed). To describe the role of medical coordinator in Poland, relevant legal acts were reviewed.

**Results.** Medical coordinator is usually an additional role for a healthcare worker (usually nurse, administrative worker or medical secretary), and not a standalone position. Their primary task is to ensure the flow of information between the healthcare provider and a patient at all stages of treatment in order to adapt it to the individual needs of the patient. They take care of the completeness of the documentation, coordinate the appointments for preventive examinations and specialist visits, conduct the first interview with a patient, and schedule examinations and tests. Based on Belbin's team roles, a medical coordinator should be a person determined in pursuit of a goal, who can clearly define objectives and prioritize, manage human resources perfectly, and delegate tasks effectively. The pandemic crisis shows that besides technical skills, the coordinator should also have a number of 'soft' skills, including, the ability to resolve conflicts and deal with stress, communication skills, empathy, and good manners.

**Conclusions.** Identification and reinforcement of the role of medical coordinator may have crucial influence on the quality and effectiveness of patient care provided in medical facilities, especially in times of crisis.

**Key words:** primary healthcare, medical coordinator, coordinated care

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# Health care organization in Poland in the light of the refugee crisis related to the military conflict in Ukraine

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## Abstract

**Background.** Poland is witnessing a migration crisis caused by the ongoing war in Ukraine. In addition to addressing housing and other basic needs, 3.7 million Ukrainians that had taken refuge in Poland must have access to medical care. Estimates show that to meet the needs of an additional million inhabitants, 2370 doctors would have to be recruited, and 7000 additional consultations and 4500 extra beds in hospitals will be needed. The accessibility of health services will decline if the healthcare system resources in Poland do not increase immediately and the system is not reorganized.

**Objectives.** The study aims to propose a strategy for implementing the changes in the Polish healthcare system in response to the Ukrainian refugee crisis.

**Materials and methods.** The research methodology is based on literature analysis, systematic review and brainstorming. The search and analysis were carried out in electronic databases to identify published studies on healthcare and public health challenges related to refugee crisis.

**Results.** The proposed strategy for implementing the changes in the Polish healthcare system is based on a quick adaptation of this system to help refugees and effective use of the resources. Additionally, the strategy aims to protect the health of Polish citizens by eliminating the problems related to the lack of preventive care and by provisioning care for chronic patients within primary healthcare. The operational objectives and examples of organization-related activities are:

- preparation of medical professionals to provide help for refugees,
- development and implementation of the communication system,
- implementation of available digital solutions
- organization of the diagnostic and medical services,
- implementation of changes in the management of medical individuals.

**Conclusions.** The increase in population will mean that the Polish healthcare system will have to evolve into a system suitable for a larger and more diverse population. Reorganization of the system is required to respond to an unavoidable increase in the demand for health services.

**Key words:** healthcare, refugees, care organization

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# Analysis of statin prescriptions in elderly patients in a rural health center

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## Abstract

**Background.** It is well known that an increase of life expectancy leads to an increase of chronic and complex pathologies, which then require the use of several drugs in order to control them well. The prevalence of polypharmacy in our environment affects 70% of our elderly patients, which then necessitate a deprescription process in order to minimize unwanted effects. Statins are one of the most widely used drugs in the elderly, but they are not always properly prescribed, as most of the research was done on the middle-aged population and did not include special features typical of elderly people. Also, evidence shows a greater number of adverse effects in this group of patients such as myopathies, diabetes mellitus or cognitive impairment.

**Objectives.** Analyzing statins prescription in people older than 75 years in a rural area of Segovia (Spain) and determining polypharmacy prevalence in our sample

**Materials and methods.** Research design: observational, descriptive, cross-sectional study.

Sample size: 646 patients.

Inclusion criteria: patients aged 75 years or older, belonging to the Cuellar health center on 1<sup>st</sup> of May 2021, having been diagnosed with dyslipidemia.

Variables: sociodemographic data, comorbidity and drugs.

This information is included in our digital system called MEDORA<sup>®</sup>. For the analysis, the IBM SPSS Statistics v. 23.0 software was used. Statistical significance was established for  $p < 0.05$ .

**Results.** A total of 673 patients belonging to the basic health area of Cuéllar met the inclusion criteria. Most of them were women (61.4%). The median age of the sample was 82 years. The median of the variable number of medications was 8, being higher in women. Forty-one patients were living at a nursing home, 82.3% have high blood pressure, 30.9% have diabetes mellitus, 34 smoked, 52 have had a heart attack, 61 have had a cerebral stroke, and 87 had arterial disease. Precisely 485 (72.2%) patients were receiving treatment with statins. Simvastatin was the most frequently used drug followed by atorvastatin. Simvastatin was used at moderate strength. Using the STOPP/START criteria for the prescription of statins, 98 (20.2% of those who had a statin dose; 14.6% of the total sample) had an adequate prescription. As many as 555 (82.5%) patients were polymedicated (more frequently in women and people with comorbidities).

**Conclusions.** Female prevalence was observed (60%), with a median age higher than that of males. More than 80% of the sample had associated hypertension. More than 70% were treated with statins, with simvastatin being the most frequent. Greater use of statins was noted in women, but more frequent cardiovascular events were found in men: heart attack, cerebral stroke and/or peripheral artery disease. Predominance of moderate doses of statins was visible. High prevalence of polypharmacy (greater than 2/3 of the sample) was evident. Polymedication was associated with female sex, existence of hypertension and cardiovascular event. Adequate prescription of statins was noted in 20% of the sample, especially in patients with a history of cardiovascular events. Inappropriate prescription was higher in women and smokers. It is important to treat elderly patients globally, using only beneficial medications for them. We should only prescribe statins in the elderly for secondary prevention and at low-moderate doses.

**Key words:** deprescription, statin, polypharmacy, dyslipidemia

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# Telecare for pregnant women could help to compensate for health inequalities in rural and excluded areas

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## Abstract

**Background.** Epidemiological studies confirm a very strong association between low socioeconomic status and a higher incidence of risk factors, incidence, morbidity and mortality. The resources to which access is determined by social position have a very significant impact not only on life chances, but also on human health opportunities. People with a low social position face many barriers that make it difficult or even impossible to take proper care of their health, e.g., more often than people with a high social position they have worse housing conditions, lower income, and finally problems with access to healthcare services. The problem of inequalities in health also includes the availability of gynecological and obstetric care in Poland.

**Objectives.** The aim of the study is to present a telemedicine model in obstetrics, which could reduce social inequalities in health by improving the access of women from rural areas who are excluded in Poland from healthcare services in the field of telemedicine and e-health, and increase the level of their education in the field of preparation for childbirth and postpartum, breastfeeding and parenting.

**Materials and methods.** The model consists in offering by the doctor during the visit the implementation of software installed on the patients' smartphones, supporting the patient's electronic medical account and electronic pregnancy card, as well as a communicator. These software is aimed at: 1) supporting the primary healthcare midwife in conducting a healthy pregnancy; 2) helping in conducting preventive examinations in a pregnant woman according to the standard of perinatal care; 2) and allowing for completing appropriate questionnaires; 4) enabling the recording of medical information by a gynecologist and midwife taking care of a pregnant woman; 5) informing women about upcoming medical services during subsequent visits; 6) enabling teleconsultation with a record of their course; 7) explaining test results; 8) issuing e-referrals for examinations; 9) issuing e-prescriptions and further recommendations; as well as 10) conducting antenatal tele-education and care for the mother and child after delivery. A pregnant woman will have the opportunity to participate in a virtual childbirth school and will receive a birth plan on her account. A pregnant woman close to the due date will be informed about the possibility of free mobile CTG rental, the test results will be sent to a mobile telemonitoring center, they will be interpreted by artificial intelligence, any irregularities will be assessed by medical staff, and appropriate measures will be implemented.

**Conclusions.** Telemedicine can help to compensate for health inequalities in rural and excluded areas. A good example is the conduct of a healthy pregnancy, which in Poland is one of the tasks of a primary care midwife.

**Key words:** e-care, pregnancy telemonitoring

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# Do we have to give up preventive medical services during a lockdown/crisis period?

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## Conflict of interest

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## Abstract

**Background.** The COVID-19 outbreak has revealed not only the priorities to be safe, to protect and provide for our families and loved ones, but also what is at stake when communities do not have the protective shield of immunization against an infectious disease.

**Objectives.** To offer a reflection on the importance of general practitioners (GPs) in immunization processes during a pandemic crisis period.

**Materials and methods.** We assessed the reports of the Romanian National Center for Monitoring and Control of Communicable Diseases regarding preventable services of immunization during pre- and pandemic period in the GPs' offices.

**Results.** A decrease of immunization coverage level during the lockdown between March 15 and May 15, 2020, was observed.

**Conclusions.** Preventative actions, such as immunization for preventable diseases, need to be continued during a health crisis to reduce the burden on a healthcare system already overstretched. Immunization is recognized globally as one of the most successful and cost-effective public health interventions – a key to limiting vaccine-preventable child deaths and giving children a chance to grow up healthy and reach their full potential. Vaccines are safe, effective and life-saving tools to control and prevent the outbreak of infectious diseases. Routine immunizations save children's lives.

**Key words:** immunization, public health, general practitioner

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## Basic dermatoscopy in primary care

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## Abstract

**Background.** Skin lesions are one of the most common complaints in daily primary care consultations. As statistics show, 90% of skin cancer mortality is due to melanomas. In addition, the annual incidence rate of melanoma and non-melanoma skin cancer continues to rise and their morbidity and death rates are also increasing. Despite advances in therapy, the most important impact factors in the prognosis continue to be early recognition and elimination of melanoma. In order to enable an early diagnosis, the dermatoscope happens to be indispensable. This tool is used to visualize dermatological lesions in a more precise way, observing deep skin structures not visible to the naked eye, which together form dermatoscopic criteria/patterns. As some of our rural populations live far from dermatological clinics, and due to the long waiting lists these clinics usually have, the use of the dermatoscope in primary care consultations would be an asset, as those lesions that at first glance may be doubtful, as well as an opportunity to perform teleconsultations with dermatologists, reducing the necessity for the patients to travel far from their villages.

**Objectives.** To learn how to interpret basic images and patterns seen with the dermatoscope and being able to differentiate benign pathologies from the malignant ones, which need urgent referral.

**Materials and methods.** Basic notions about the use of the dermatoscope and basic knowledge about images of typical patterns and dermatologic lesions will be shown and explained.

**Conclusions.** The incorporation of this type of specialized devices in primary care centers would reduce the burden of care for dermatologists, facilitating the diagnosis of skin lesions, ensuring the highest quality of the imaging tests taken and improving the quality of life of patients who live in rural areas.

**Key words:** teledermatology, dermatology, physicians, family, diagnosis

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# How to set up group consulting

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## Abstract

**Justification.** In 2019, before the COVID-19 pandemic hit, the idea emerged of introducing group consulting as an option of reviewing patients with chronic conditions in Maple Healthcare, a large rural practice caring for around 14,500 patients in the Lisnaskea area in Northern Ireland. Facing an ageing population and a rising number of patients with chronic health conditions and comorbidities, a key task for primary care is to empower patients to take ownership in self-managing their health and wellbeing. The main benefit of group consulting over the traditional one to one consult is that it can improve empowerment. Other benefits like increased patient satisfaction and overall wellbeing, improved job satisfaction of healthcare professional conducting chronic disease reviews and efficiencies have been reported.

The pandemic saw remote consulting becoming part of how the primary care team interacts with their patients. Chronic disease reviews were mainly conducted by phone. The feedback of patients was often positive mainly because it meant less travelling which can be an added burden especially for elderly people living rurally. The opportunity to see their clinicians rather than speaking over the telephone by using the virtual group consultation format was seen as a possible added benefit as it potentially improves social connection and reduces feelings of isolation. The concept of virtual (or face-to-face when the 'lockdown' would lift) was launched to the rest of the team and on the practice website. Various team members attended training on how to set up and conduct group consulting. Processes of recruitment, selection criteria, confidentiality and consent procedure were confirmed. The actual 'script' of the group consult was based on the training received through Redmoore/ELC; the patient would first meet with the facilitator to discuss their biometric numbers displayed on a discussion board and come up with questions for the clinician after which the clinician joins to collectively discuss and answer the questions. From the start of 2022, various group consults (virtual and face-to-face) have been held. It was decided to start with patients with type 2 diabetes. This is a condition for which lifestyle changes and patient empowerment are important to achieve better patients' outcomes. The practice has a large cohort of patients with this condition. This is an example of innovative practice based on drivers like improving effectiveness, efficiencies and quality of holistic care. It was agreed our experiences could help to spread the word of the benefits of this approach and how the challenges and barriers can be overcome.

**Objectives.** Share with the participants the experience of setting up and running group consulting. The participants will discuss benefits of introducing group consulting, the challenges they will be facing and how to overcome these.

**Organization of the WS.** After sharing our experience with group consulting with the larger group small groups of 4–5 participants will discuss the benefits they envision of introducing group consulting and the challenges they may be facing and how to overcome these. The small groups will feedback during the plenary.

**Participation of the delegates.** Active participation.

**Expected outcomes.** The evidence and experience of group consulting points to improvements in empowerment, lifestyle changes, experience of care, and job satisfaction for healthcare professionals. However, significant time and effort are needed to set up and deliver (virtual) group consults and by attending this workshop practitioners and their teams will be encouraged and enabled to consider and implement this promising model of consulting for people with chronic disease.

**Key words:** general practice, group consultations, shared medical appointment, rural health

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# The indirect impact of the pandemic: Determinants and consequences of access to public primary care services during the COVID-19 pandemic

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## Conflict of interest

None declared

## Abstract

**Background.** The COVID-19 pandemic has had a major impact on the health of the population, not only for those affected and infected, but also indirectly by disrupting the activity of health services, potentially causing a sharp decline in treatment and diagnostic capacity throughout the peak months of the pandemic.

**Objectives.** To assess the impact of the pandemic on the health of the population, beyond the direct effects of COVID-19, with an intersectional look at the most vulnerable population and with a gender perspective.

**Materials and methods.** Ambispective cohort study of a combination of primary care data from the pre-pandemic period (2015–2019) and pandemic months (2020–2022):

- analysis of the number and type of visits to primary care (face-to-face, telematic) by categories of users to establish the main groups with access difficulties, as well as the association between the decrease in visits and the incidence of COVID-19;
- evaluation of the evolution of health indicators of the main chronic diseases by subgroups of users;
- characterization of the population subgroups that have suffered most from the disruption of the public health system during the months of the pandemic.

**Conclusions.** Applicability is immediate in the case of the Catalan public healthcare system, given the specificity of the sample. External validity is more limited, as the results will be conditioned by the characteristics of the public healthcare system (universal and with relatively low co-payments), but can nevertheless inform policy-making in countries with similar healthcare systems.

**Relevance.** This research will provide insight into the impact of the pandemic on primary healthcare services from its onset. The aim is to generate the evidence needed to guide health authorities in their plans to focus resources on those diseases and population groups that have been most affected by the pandemic, beyond the direct effects of COVID-19.

**Key words:** COVID-19, primary health care, public health, vulnerability

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# Phytophotodermatitis caused by hogweed sap in family doctor's practice: A clinical case

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## Abstract

**Background.** Hogweed is a plant of the cow parsnip genus (*Heracleum*). It has large compound leaves and small flowers with 5 petals which are characteristically arranged in large dense clusters known as umbels. Species such as *Heracleum mantegazzianum* (Giant hogweed), *Heracleum persicum* (Persian hogweed) and *Heracleum sosnowskyi* (Sosnowsky's hogweed) are widespread in Europe and declared by the European Commission as the invasive alien species of EU concern. Some of the species are considered toxic, and all parts contain chemicals known as furocoumarins. Contact with the leaves and sap can cause phytophotodermatitis, in which the skin erupts in severe blisters if exposed to sunlight; blindness can occur if the sap enters the eyes.

**Objectives.** Once it invades a given area, the species is almost impossible to eradicate because the seeds remain viable for many years and the plants can re-sprout readily. Taking this into account, the prompt and adequate approach among the medical staff will be relevant in the coming decades. Although there is a lack of accurate statistics, patients with skin damage of varying extent and depth caused by hogweed sap regularly come to family doctor's practice and hospital emergency departments. Often the damage becomes more serious due to the lack of knowledge about adequate first aid.

**Case report.** On June 22, 2022, a 24-year-old male with maculopapular rashes on the front and lateral parts of the neck (collar type) and forehead visits the GP's office in the acute hour. In some places vesicles were visible. The patient complained of a burning sensation and localized pain (scale 7 out of 10). He had no chronic diseases, no allergies in the history and does not use any medications. The patient notes that on June 20 he cut long grass with a trimmer in a country house. During this activity he was wearing a shirt with long sleeves, long pants, gloves, goggles, a hat. The patient did not administer any first aid to himself. In the family doctor's practice, areas of damage were cleansed with Sol. Prontosan (Sol. Hexidini, Sol. Polyhexadini) and Crem. Acidum fusidicum 20 mg/g. Phytophotodermatitis, which had progressed to a IIb degree burn, was clinically diagnosed. Considering that the burn did not exceed 1% of the body area, outpatient therapy with anti-burn ointment (Lanolinum 100.0, Vaselinum 100.0, Ol. Vaselini 50.0, Laevomyctinum 15.0, Hydrocortisonum 100 mg/2 mL) was prescribed for external use on the damaged areas for 1 week twice daily. The patient was recommended to avoid sunlight and not to swim, so as not to spread and worsen the damage. If necessary, 1<sup>st</sup> generation antihistamines, NSAIDs are advised for rash and pain at night. At follow-up visit on June 28, 2022, the burn is found to be healing primarily, with vesicles ruptured and scarring.

**Conclusions.** Considering the widespread prevalence of hogweed in Europe and the fact that the damage develops under the influence of UV light, it is necessary to encourage public education and regularly educate medical staff in order to treat hogweed phytophotodermatitis promptly and successfully. It is crucial to provide detailed recommendations to patients on action in case of contact with hogweed sap:

- to remove contaminated clothes, protective gear and/or jewelry,
- to rinse affected skin areas with cool, running water for at least 20–30 min
- to avoid sunlight as it promotes the spread and deepening of the damage,
- to use a sunscreen with sun protection factor >50 (SPF 50+),

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## Poster presentation (P-3)

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– to avoid swimming in order to avoid superinfection of the affected area.

Outpatient treatment includes:

- avoidance of further exposure to causative agents,
- topical corticosteroid therapy with hydrocortisone topical cream by applying it sparingly to affected areas 2–4 times per day for 7 days,
- systemic corticosteroid therapy with oral prednisone tablets are indicated for severe cases,
- antihistamines in case of pruritus,
- NSAIDs for pain relief.

Cases with skin blistering or loss should be treated like a chemical burn. Mild and part of moderately severe burns can be treated on an outpatient basis, but it is necessary to correctly assess the severity of the damage to decide on the need for hospitalization. By providing proper first aid and correct treatment, extensive and deep damage can be avoided.

**Key words:** hogweed, chemical burn, phytophotodermatitis, photodermatitis



# Herpes zoster in elderly: A case report

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## Abstract

**Background.** *Varicella zoster* is widespread virus all over the world, which often lays dormant for many years in one's body after chickenpox infection. Elderly people are especially prone to suffer from a reactivation of the virus in a form of herpes zoster (shingles), which is often followed by debilitating post-herpetic neuralgia.

**Objectives.** While usually herpes zoster is a self-limited rash with pain, it can be a far more serious case in the elderly population. Acute cases often lead to post-herpetic neuralgia and are responsible for a significant economic burden as well as significantly decreased quality of life for people affected. While there is a vaccine available and recommended for the population over 60 years of age, it is not yet a standard in the majority of countries.

**Case report.** A 78-year-old female came on May 31, 2022, to the family doctor's practice in an acute hour with complaints of a painful rash on the right hand, which appeared on May 28, while the patient was working in the garden. The rash had spread during these 2 days.

Initial status localis: On the right hand, including palmar and dorsal surfaces of the shoulder and hand, elbow folds redness, maculo-papular rashes, erosions, individual and confluent vesicles filled with serous fluid were observed. Sharp pain was present when palpating the rash.

Clinical diagnosis: herpes zoster without a specific dermatome and disseminated along the entire length of the right arm. Patient presenting herpetic rash on forearm, palm, shoulder and elbow.

Initial therapy: Tab. Acycloviri 200 mg 1 tablet 5 times a day for 7 days.

Next steps: Follow-up visit was recommended. Laboratory testing was prescribed: complete blood count, kidney function indicators and CRP. Tests came back without significant abnormalities.

The patient did not report to the agreed follow up, but was invited once more for June 21 (3 weeks after the first examination). The patient visited to the practice with complaints of severe pain and paresthesias, weakness and tremors in the right hand, inability to hold a teaspoon in fingers, and inability to write (no grip and muscle strength). She has consistently followed the prescribed therapy and has additionally used the ointment "Baltuska" on her own initiative. This particular ointment is pharmacy-made, contains dimedrol 0.5, talc, zinc 15.0, glycerin 20.0, sp.vini 70% 15.0, aqua destillatae ad 150.0.

Follow-up status localis: On the right hand, including the palmar and dorsal surfaces of the shoulder and hand showed healing wounds after rupture of the vesicles, as well as pigment from the ointment that the patient used. New vesicles or other topical deposits were not observed. The patient has severe paresthesias and pain (scale 8 out of 10) and reports loss of sense of temperature.

Clinical diagnosis: post-herpetic neuralgia. Herpetic rash after 3 weeks of treatment.

Therapy: Tab. Gabapentini 300 mg 1 tablet twice a day, Tab. Amitryptilini 12.5 mg once a day before sleep as a first step. Prescribed blood tests: complete blood count, Anti-Herpes simplex 1/2 antibodies IgM 3.0 U/mL (N 0.0–20.0), Anti-Herpes simplex 1/2 antibodies IgG >200 U/mL (N 0.0–20.0), Anti-Varicella zoster IgG antibodies > 1500.0 U/mL (N 0.00–100.0), Anti-Varicella zoster IgM 63.9 U/mL (N 0.0–20.0).

**Conclusions.** The most important risk factor for contracting herpes zoster is age, which is accompanied by immunosenescence (general weakening of cell-mediated immunity). The most common complication of herpes zoster is neuralgia, and 80% of post-herpetic neuralgia patients are over 50 years of age.

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## Poster presentation (P-4)

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Understanding the impact of the disease on the quality of life and the characteristics of the aging population, vaccination is available in most developed countries, which significantly reduces the incidence of herpes zoster. Considering the fact that 1 out of 3 patients who have had chickenpox during their lifetime and 90–99% of them in the adult population over the age of 50 will contract herpes zoster during their lifetime, and a large proportion will suffer complications, it is recommended to introduce a national vaccination program for the adult population into the immunization plan.

**Key words:** herpes, neuralgia, elderly, welfare

# Narcisuss: Humane center for cancer patients and their families

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## Abstract

**Background.** After cancer diagnosis and treatment, most cancer patients in Serbia are left to their own devices to navigate through their specific needs. Palliative care did not prove to be enough for patients. The association of healthcare workers of Rasina county recognized the needs of these patients and formed the Humane center-Narcissus in 2018. The center functions through donations.

**Objectives.** We wanted to use this opportunity to introduce and spread our idea since there is a tremendous need for this kind of patient care.

**Materials and methods.** Description of Center's activities and future plans.

**Results.** For 5 years, the center established 2500 contacts with cancer patients and their family members. Its premises are conveniently located close to the oncology ward, so the interested parties can easily communicate. The center provides an oncologist, a psychologist, a nutritionist, a physical therapist, and a social worker. Their services are free and available once a week, 4 h/day. Appointments are made in advance but if there are few visits in the schedule, the center workers visit the oncology ward and introduce patients to the center activities. The COVID-19 pandemic changed the way the center functions – we introduced online visits, but met many problems (lack of internet access and appropriate communication devices among the patients, IT illiteracy, etc.), so in the end, the contacts were mostly performed through phone calls.

**Conclusions.** Patients and their families are thrilled there is someone who recognizes their needs beyond the medical talk. Even before the pandemic, the medical staff were overwhelmed and had very few opportunities to truly devote their time to this group of patients, and also help their families navigate this difficult road ahead of them. Interest in our center proved there is a necessity to further spread of the idea. Our plans include further support for online visits and buying a vehicle to visit the patients at their homes.

**Key words:** cancer, patient, post medical care

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# How to persuade health insurance companies to support the prevention of prostate cancer primarily at GP clinics in Slovakia

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## Abstract

**Background.** Prostate cancer is the most common cancer of the urogenital system, and it is the leading cause of cancer mortality in men over 50 years of age. The incidence of prostate cancer is continuously increasing in Slovakia as well as worldwide. One of the best methods of reducing mortality for this disease is through early diagnosis. Therefore, preventive examination is extremely important.

**Objectives.** The 1<sup>st</sup> aim of the study was to find out how many men older than 50 undergo examination at urology clinics after preventive examination by general practitioners (GPs). The 2<sup>nd</sup> aim is to evaluate the efficacy of PSA and free PSA at GP clinics.

**Materials and methods.** Examination of PSA and free PSA is currently not funded by health insurance at GP clinics in Slovakia. Therefore, we have managed to make it available for our clinic with the support of a urologist, who we know personally and with whom we were able to collaborate. This article analyses the outcomes of preventive examinations over the period of 5 years in our GP clinic.

**Results.** Prostate cancer is the 3<sup>rd</sup> most common malignant tumor in males, following lung cancer and colorectal carcinoma, as it was seen in our results too. We found that of 1678 examined patients, 663 were men and 333 of them were older than 50 years. We were able to examine total PSA and free PSA in patients who had not been examined by a urologist previously. There were 107 patients with examined PSA and free PSA, and 6 of them had elevated markers. In this group we finally found 4 patients with prostate cancer.

**Conclusions.** Our conclusion was that periodic preventive examination for prostate cancer at GP clinics is important for men over 50. The screening of this group of patients contributes to increasing early diagnosis of prostate cancer. Furthermore, in the case of positive family history of prostate cancer, the age limit should be 40 years. We would like to earn support from health insurance companies (screening PSA as part of the basic blood tests ordered by GPs in the above mentioned specific group of patients, ideally with assessment of Prostate Health Index (PHI)).

**Key words:** prostate cancer, PSA, screening

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# Early diagnostics of oncological diseases in general practice throughout the course of the COVID-19 pandemic

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## Conflict of interest

None declared

## Abstract

**Background.** In Latvia, malignant neoplasms are the 2<sup>nd</sup> leading cause of death in the population.

**Objectives.** To find out whether the COVID-19 pandemic has changed people's willingness to participate in breast, cervical and colorectal cancer screening programs.

**Materials and methods.** Retrospective research, which included studying medical records of patients containing the results of 1228 screenings for breast cancer, 1415 screenings for cervical cancer and 2237 screenings for colorectal cancer, from 1 current GP practice in Vidzeme region of Latvia. The research work was performed between October 2021 and January 2022. Statistical data on cancer screenings performed and cancer cases diagnosed were collected.

**Results.** Comparing research data from the GP practice in Vidzeme region with data from whole Latvia about breast cancer and cervical cancer screenings, it can be concluded that people's readiness to take part in these programs is equal in the discussed region and in the whole country. The research data shows that during the pandemic the readiness to have screening for breast and cervical cancer has decreased to 18.6%. There is a big difference in the data, because during 9 months in 2021 in the whole Latvia colorectal cancer screening was done on 8.2% of inhabitants, but at the same time in the abovementioned GP practice in 43% of people.

**Conclusions.** In general, during the COVID-19 pandemic, the coverage of screening for breast, cervical and colorectal malignant tumors in Latvia has decreased compared to the time before the pandemic. More research must be done to evaluate changes in the activity to see what long-term effects occur and which factors influenced the uptake.

**Key words:** COVID-19 cancer screening programs

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# Self-assessment of medical students among rural health experience: Cross-sectional study

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## Abstract

**Background.** The CADIR project organized by the Bursa Uludag University and carried out by undergraduate medical students is aimed at providing healthcare to rural areas that are excluded in terms of healthcare in Bursa/Turkey, and at providing rural health experience for participating students. Students are expected to improve their professional and problem-solving skills, meet different groups of patients in rural areas, and improve their communication skills.

**Objectives.** To assess the experience of students who participate in the CADIR project.

**Materials and methods.** The day after the CADIR project trip, self-assessment survey was delivered online using Google Forms to 167 participants who were medical students. The survey form included 30 questions consisting of concerning 5 sociodemographic factors, 5 physical condition, 5 medical support, 5 benefits, 5 communication, and 5 feelings. Answers were collected with the Likert scale (1: I don't agree at all, 5: I totally agree). Fifty medical students completed the survey and participated in the research (participation rate: 29.9%).

**Results.** Of the 50 medical students studied, 41 were in their preclinic years, whereas 9 were in clinic years. Approximately 43.1% (n = 22) of them were male. According to the survey results, 45 students (90%) totally agreed that rural healthcare experience has been professionally beneficial. Forty-seven students (94%) totally agreed that they developed their communication skills through this experience. Forty-five students (90%) agreed that they enhanced their problem-solving skills in this experience. Twenty-five students (50%) reported that they did not have an opportunity to attend an examination of a patient with a disability, and 29 (58%) – an examination of a pregnant patient. Eleven students (22%) reported that they did not have an opportunity to attend an examination of a child. Interestingly,  $\frac{3}{4}$  (75%) of students who reported that they were not able to attend as many patients examination as they expected, were in their preclinic years. Thirty-five students (70%) reported that they were not nervous about examining patients in rural areas.

**Conclusions.** This study clearly shows that the CADIR project contributes to participating students' experience in rural healthcare. It is believed that such experience during the years of medical school benefits students in their professional and social lives.

**Key words:** rural health, medical student, medical progress

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# The prevalence of microaggressions on LGBTQ+ families in Latvia and the impact in primary care from a European perspective

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## Abstract

**Background.** The presence of microaggressions in Latvia is more frequent as there is an increasing aggressive propaganda of discrimination of sexual minorities and their families in the media and through politics. Latvia fulfils only 17% of EU Human LGBTQ+ Rights.

**Objectives.** To develop a project that investigates the prevalence of microaggressions on the LGBTQ+ families, and their presence and the impact in healthcare, taking into account the primary care management.

**Materials and methods.** Study 1. Scoping review at national level.

**Study 2.** A pilot study of the LGBTQ+ families' perception of microaggressions on multiple levels of care and services in the frame of their families and identities in Latvia.

**Study 3.** European descriptive study of the LGBTQ+ family definition and rights, healthcare professionals' knowledge and perception of their care and using ad hoc questionnaire.

**Study 4.** Design of a digital intervention to improve primary care professionals' knowledge to promote the best multidisciplinary approach to improving the LGBTQ+ health and social integration results.

**Results.** The results will highlight the different approaches in Europe and will help us to design a digital training intervention to improve the care provided by healthcare professionals.

**Conclusions.** The research and urgent international support is needed to help Latvian LGBTQ+ families to conquer discrimination of microaggressions throughout the investigation, to improve and to better develop equal health and social care on all levels, better education and social defence of LGBTQ+ families on National and European level.

**Key words:** LGBTQ+ families, microaggressions, GPs

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# Value of hormonal indicators in young men with metabolic syndrome

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## Abstract

**Background.** Chronic non-communicable diseases (NCDs) are currently a major healthcare problem. Among NCDs, metabolic syndrome (MS) is present in about 25% of the general population and about 40% of the population over the age of 40. Given that MS is a precursor to all cardiometabolic diseases, leaders of various professional organizations are calling for increased efforts to reduce the incidence of this condition and its components. Recently, more and more attention has been paid to the study of the brain-centric model of the pathogenesis of MS. The ways of influence of such a model on hormonal indicators and methods of their correction are of interest. Numerous studies conducted in recent decades have shown that increasing physical activity has a beneficial effect on each of the components of MS. At the same time, how other indicators change at a certain intensity of physical exertion has not been studied enough, especially in young men.

**Objectives.** The purpose of the study is to compare the content of testosterone, cortisol and insulin in men with MS and men with a high level of physical activity.

**Materials and methods.** Twenty-eight young men (mean age  $31.3 \pm 6.8$  years) participated in the study, among whom 54% had MS and led a sedentary lifestyle (MS group), while 46% were healthy physically active young men (mean age  $27.4 \pm 4.6$  years), with a level of physical activity of an average of 4 h a day, 6 times a week, which amounted to an average of  $24.4 \pm 2.1$  h of physical activity per week (they formed the control group). The study did not include patients with stable heart rhythm disorders (atrial fibrillation, frequent ventricular extrasystoles, etc.), clinically pronounced heart failure, severe kidney and liver dysfunction, drug or alcohol addiction, as well as those who suffered acute inflammatory diseases during the previous month. All patients underwent standard clinical and laboratory examination (general blood analysis, determination of lipid spectrum, creatinine, urea, glucose, aspartate aminotransferase (AST), alanine aminotransferase (ALT)), their hormonal blood parameters (total testosterone, cortisol, and insulin) were measured and body weight was determined using Tanita scales, fat mass (kg, %). The research protocol was approved by the ethics commission of the V.P. Komisarenko Institute of Endocrinology and Metabolism of the National Academy of Medical Sciences of Ukraine. All participants gave written informed consent. The Declaration of Helsinki (2000) and relevant national standards regarding their participation in research were taken into account. Statistical analysis was performed using MedCalc v. 18.10.

**Results.** Significantly higher body weight and percentage of adipose tissue were found in patients with MS. No significant differences were found in the values of erythrocyte content, hemoglobin and hematocrit concentration, as well as urea in patients with MS. As a result, an insignificant increase of ALT values in the MS group (38.0 and 24.4 U/L in the MS group and the control group respectively) and a significant ( $p < 0.001$ ) decrease in the De Ritis coefficient (0.73 and 1.26 U/L respectively) were also revealed. This fact indicates pathological changes in the liver, which may be associated with fatty hepatosis, which often develops due to an increase of body fat. Significantly lower values of total testosterone ( $p = 0.034$ ) and cortisol ( $p = 0.001$ ) were found in men with MS and, at the same time, significantly higher insulin content ( $p = 0.007$ ) was noted. A significant increase in the level of insulin

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and a moderate decrease in the level of testosterone increases the likelihood of developing type 2 diabetes, impaired reproductive function, and the appearance of cardiometabolic disorders.

**Conclusions.** In young men with MS compared to the control group, the level of fat mass is 3 times higher, the level of testosterone is 1.5 times lower and the level of insulin is almost 4 times higher. This indicates the need to increase physical activity in young men with MS. However, the issues of individual selection of the intensity of exercise in young men with MS, their duration and frequency during the week, which could help correct hormonal and biochemical blood parameters, as well as the functional state of the body without the use of conservative treatment, remain incompletely studied.

**Key words:** metabolic syndrome, hormones, physical activity

# Is it important to develop aged-friendly primary healthcare centers in aging Turkey?

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## Abstract

**Background.** The recent data released by TÜİK (Statistics Turkey) show that the proportion of elderly people aged over 65 years has increased by about 24% in last 5 years and reached 9.7% of the total population. The elderly are receiving more healthcare from family physicians (primary care) because these centers are closer to their homes and easier to reach than hospitals. Because of these reasons, the service provided by primary healthcare centers must be enhanced.

**Objectives.** The aging process must be well understood and managed. During this process, improving and protecting health is very important. Health and social problems of both the elderly and caregivers must be evaluated all together. It is important to make arrangements in primary healthcare centers to meet the needs of the elderly (e.g., elevators, wheelchairs, door width, etc.). It is also important to know the characteristics of aging and disability, as well as to appropriately communicate with the elderly.

**Materials and methods.** The guidelines for aged-friendly primary healthcare centers was first developed by WHO to guide the primary healthcare center workers (doctors, nurses and others) in diagnosis and follow up of chronic diseases and other problems of the elderly. These guidelines aim to promote the approach of the primary healthcare workers towards the elderly; if there is a need – to give lectures about elderly health, to make healthcare professionals sensitive to the needs of the elderly, and to raise awareness about the challenges the elderly meet.

**Results.** According to WHO guidelines, aged-friendly primary healthcare centers must have some expertise in areas such as physical disability, clinical help, informing the patient, and promotion and protection of health and social activities. As a result of migration and changing workplaces, the number of elderly people living on their own in rural areas and having difficulties in accessing healthcare institutions is also increasing. The development of aged-friendly primary healthcare centers is also important in this respect. We think it is important to improve knowledge and communication skills of the primary healthcare center workers, especially the doctors and nurses, as the population our country is getting older like other countries.

**Conclusions.** Health systems must be organized better to meet the needs and choices of elderly people according to the global report of WHO about aging and health. Developing aged – friendly primary health care centers in Turkey may improve the mission of primary health care center workers, as the population is aging.

**Key words:** elderly, healthcare service for elderly, family medicine

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# The efficiency of colorectal cancer screening in general practice

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## Abstract

**Background.** Colorectal cancer (CRC) is the 3<sup>rd</sup> most common cancer in the world. In Slovakia, it was the most common diagnosed cancer in both sexes in 2018. The interruption of CRC prevention may lead to delayed diagnosis of CRC, possibly in a more advanced stage.

**Objectives.** The main goal of the study was to increase the participation of individuals in colorectal cancer screening in the general practice for adults, using visual and verbal intervention (poster and personal communication). The secondary goal was to increase men's participation in screening and to map predetermined risk factors in participants.

**Materials and methods.** The group consisted of patients over the age of 40. Our intervention study was carried out in 2 phases in the general practice for adults in Krompachy, Slovakia. Each phase lasted 12 months (2020 and 2021). Before the intervention, patients came to the outpatient clinic spontaneously. Our intervention included posters and a personal communication. We processed the results statistically. We used  $\chi^2$  test in 2×2 tables, and all tests were performed at a significance level of  $\alpha = 0.05$ . We used IBM SPSS v. 28 statistical software and free OpenEpi software.

**Results.** From the total number of 1247 patients over 40 years of age in our study, 378 people were screened during 2 years of research. We met the main goal and increased patients' participation in the screening: 135 people before intervention in 2020 (10.9%) compared to 243 (19.3%) after intervention. Statistically, this difference was highly significant ( $p < 0.001$ ). At the same time, we increased the participation of men in screening: 10.63% before intervention compared to 17.82% after intervention, which is also highly statistically significant ( $p < 0.001$ ). We mapped the risk factors for colorectal cancer: smoking, BMI and the occurrence of cancer in first-degree relatives. Over 2 years, we detected 1 case of bile duct carcinoma, 1 of rectal carcinoma and 8 cases of polyps in the colon.

**Conclusions.** We managed to increase participation in CRC screening by intervention methods, while also increasing male participation. By mapping risk factors, we identified the risk profile of the screened persons, which can lead to invitation to selective screening in the future. Based on our intervention study, we believe that statistically, intensive communication between the general practitioner and the patient significantly increases adherence to screening.

**Key words:** colorectal cancer screening, general practitioner, fecal occult blood test, colonoscopy

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## A small village doctor uncovers truths

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### Acknowledgements

I thank our health center director for giving us this opportunity to attend the European Rural and Isolated Practitioners Association.

## Abstract

**Background.** Syphilis is an infectious disease caused by *Treponema pallidum* that is transmitted through sexual contact or during pregnancy. The incidence has increased in recent years, mainly among men who have sex with men. The disease is classified as early syphilis (less than 12 months), which is contagious, and late syphilis, which is rarely contagious. Diagnosis and management are a challenge due to its multiple manifestations. A good anamnesis makes an early diagnosis of this pathology possible.

**Objectives.** Knowing the population of a small town makes us attentive to signs of a disease that is not detected in the emergency room because we do not know the social environment of the patients.

**Case report.** A 47-year-old patient who reported to the healthcare center because she has had lesions on the palms of her hands and feet for a month that caused itching. She has visited the emergency room 4 times where she has been administered “Urbason” intramuscularly without clinical improvement. After the last visit, on the following day new lesions appeared in the abdomen, and she believed that they were an allergic reaction to this medication. The patient has been treated with antihistamines, oral and topical corticosteroids without improvement. On physical examination, we observed erythematous condylomas on the palms of the hands and feet. She also presented with erythematous plaques on the abdomen and chest. There were no lesions on the legs and arms. When we ask her about new treatments, new use of bath gel or having eaten new foods, she tells us that she has not done any of that.

In the middle of consultation, she told us about a new partner with whom she is very happy, and that she left her husband 5 months previously. Due to the characteristics of the lesions and the conversation with the patient, thanks to the good relationship between the family doctor and her, we asked her about genital lesions. She tells us that her new boyfriend had an ulcer on his penis and then it came out on her, but she was treated when she went to the emergency room with a cream, and it was cured. We asked about relationships outside the couple, but she denied having any. Due to all above developments, he was requested to have tests with serologies for sexually transmitted diseases and the result was positive for syphilis. Treatment was prescribed, the patient was referred to the infectious disease service of the reference hospital, recommendations were given, and the couple was called for a consultation to perform an examination and assessment.

The patient’s partner reported the next day. At first, he did not want to be tested for sexually transmitted diseases but in the end he agreed. He called us about a new ulcerated lesion that appeared on the periphery of his anus. We asked him about relationships with someone other than his partner, but he denied having any. In addition, treatment was prescribed, he was referred to the infectious diseases department of the reference hospital, and protection measures and recommendations for his sexual partner were indicated. Three days later, his results for syphilis came back positive.

Several days later, a homosexual patient reported for a consultation because 3 days previously his partner, who “is not from the village”, has tested positive for syphilis, and that on the same day he went to the emergency room to perform blood test for sexually transmitted diseases. He presented, according to reports, injuries

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## Poster presentation (P-13)

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to the penis and anus. His results for syphilis were positive. Treatment was prescribed, he was referred to the infectious diseases department of the reference hospital, and protective measures and recommendations for his sexual partner were indicated. When we asked him about new treatments, new use of bath gel or having eaten new foods, he tells us that he has not done any of that. Coincidence or infidelity?

**Conclusions.** The close doctor–patient relationship that usually develops in rural areas is sometimes key for early diagnosis. The bond between doctor and patient facilitates knowing the patient at more levels other than just the clinical one, and the physician is able to detect small changes that may offer a hint towards a faster diagnosis.

**Key words:** secondary syphilis, skin diseases, general practitioners, rural health services

## Teamwork overcomes any problem

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## Abstract

**Background.** Diabetic foot ulcers are common complications of patients with poorly controlled diabetes mellitus. The multidisciplinary approach to diabetes and its complications includes evaluation by a variety of healthcare professionals who have different levels of experience and who are in contact with one another. Coordinated treatment may include hygienic-dietary measures, exercise, drugs, wound healing and even surgical interventions. There is no specific composition of a multidisciplinary team, although depending on the pathology addressed, it may include primary care doctors, nurses, hospital specialists, etc.

At the same time, delegating working to trained nurses and broadening their competences is crucial for the proper functioning of healthcare. The concept of “advanced nursing” was already introduced in the early 1960s in the USA to alleviate some of the challenges of the workforce, often due to the perceived need to increase the number of professionals and the medical services available in low-income and rural areas. Because to the COVID-19 pandemic, new tele-consultation protocols have been implemented, allowing online contact with hospital specialists, which in many cases facilitates the early diagnosis and treatment. With this, patients who live in rural and isolated areas have the same facilities and resources available as patients in urban areas, while at the same time reducing direct and indirect costs.

**Objectives.** The development of inter-outpatient relationships, the strengthening of collaboration agreements and the negotiation of the role of nursing in rural areas are essential for the success of diagnosis and treatment of the patient.

**Case report.** A 62-year-old patient who lives in a rural area reported to the local healthcare center to request a check-up with lab tests as advised by his nurse. In the personal history, the patient had hypertension, Parkinson disease, diabetes mellitus and moderate COPD without follow-up for 2 years due to the pandemic. On review with the results, his general practitioner (GP) observed poor glycemic control, with a glycosylated Hb of 9.8% (84 mmol/mol) and fasting glycemia of 238 mg/dL (13.2 mmol/L). In addition, during the consultation, the patient reported that he had had intense pain in the 2<sup>nd</sup> left toe for 1 week. When examining the foot, we observed the 2<sup>nd</sup> toe of the left foot with edema, bad odour and erythema, with an area of necrosis and increased temperature.

Given the clinical picture and the lab results, treatment with double antibiotic therapy and heparin was initiated. In turn, the patients’ oral and insulin treatment were adjusted, and a consultation with an endocrinologist was carried out. The endocrinologist offered the patient an outpatient appointment in 1 month time and further adjusted his treatment online. Meanwhile, in a coordinated manner, we contacted our nursing team to assess the ulcer. Our nursing team was in charge of providing the patient with an adequate diet for his pathology, of carrying out daily dressings, recording fasting blood glucose, explaining the insulin adjustment based on basal blood glucose, and instructing him to exercise daily when the ulcer improved.

In the first treatment, the finger was debrided, the scab was removed with a scalpel, and a necrotic point was observed. Two days later, during the nursing appointment, the patient reported that his ulcer had gotten worse that morning; he did not had a fever but the ulcer had suppurated. Due to his poor general condition, the nurse contacted his family doctor and he, in turn, contacted the cardiovascular surgeon by telephone. The surgeon made an appointment the next day to assess the patient, performed debridement and dressing, and planned a review in 2 weeks. In the meantime, the patient was to continue with his follow-up and

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nursing care at his local healthcare center. One week later, the patient had lost 3 kg, his fasting blood glucose levels were around 100 mg/dL (5.55 mmol/L) and the ulcer had significantly improved in appearance, with decreased pain. The patient continues to be monitored and treated by nursing but with teamwork it has been possible to avoid amputation so far.

**Conclusions.** Multiple studies have supported the use of multidisciplinary programs as effective, cost-effective and superior to treatments performed solely by a specialist; however, there are barriers that prevent us from working as a team due to the short consultation time and the associated costs, which are increased in rural areas due to the few resources available. Building collaborative relationships with other healthcare professionals is critical to the success of healthcare and patient safety.

**Key words:** diabetic foot, interdisciplinary communication, rural health services

# Adoption of telemedicine: Management of carpal tunnel syndrome in rheumatoid arthritis following COVID-19 pandemic

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## Abstract

**Background.** In the wake of COVID-19 pandemic, many primary care consultations shifted to telemedicine (TM). Patients are often satisfied with this option. Several patients classified as vulnerable prefer to continue to use the TM mode. In this semi-rural general practitioner (GP) surgery case, the patient with rheumatoid arthritis (RA) and carpal tunnel syndrome remote management almost the same as face-to-face management.

**Objectives.** To assess management of RA and carpal tunnel syndrome and patient satisfaction during a TM consultation compared to face-to-face modality.

**Materials and methods.** A middle aged female with known RA and on disease-modifying anti-rheumatic drugs (DMARDs) presented with carpal tunnel flare in wrist and also shoulder pain. A qualitative assessment of patient satisfaction was conducted via verbal questions. A debrief with a senior general practice specialist with an orthopedic surgical background on management was used to assess management. The online electronic health record gave access to all integrated primary care, specialist and pharmaceutical entries via System One IT platform in the NHS (National Health Service) in England.

**A landline telephone was used to call from the practice's booked appointment list.** Prescriptions can be sent electronically to a nominated pharmacy or collected physically for analgesia. The musculoskeletal, splint request and orthopedic referral for surgery as requested by the patient were electronic using Microsoft Word documents. The practice administrative secretaries electronically forwarded requests to the relevant units. The radiology shoulder X-ray and blood investigations were ordered online and the patient will be contacted to come in when booked. Use of online communication supplementary to the telephone included the Accurx messenger platform to request and receive images, photos, SMS and MMS. These can be saved to the online patient record. This patient was asked to self-refer to her work occupational health unit for adjustments to her role.

**Results.** Management was the same except for physical examination. Active listening skills were employed. The patient responded that she was happy with plan.

**Conclusions.** The patient was satisfied with TM consultation. The TM management was the same versus face to face and safe. This was an example of the adoption of TM which can help prepare rural medicine for the next crisis.

**Key words:** telemedicine, COVID-19, rheumatoid arthritis

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## Anthracosis: When forests fires strike back

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### Abstract

**Background.** Anthracosis is the black discoloration of bronchial mucosa that clinically emerges as a developing course of dyspnea and/or cough in elderly non-smoker people. It is a predisposed factor for infections. This disease is related to exposure to dust and wood smoke.

**Objectives.** To report of a case of anthracosis.

**Materials and methods.** Male, 69-year-old, retired (former drag machine worker) had an appointment with his general practitioner (GP) presenting with cough and residual hemoptysis for a month, and was prescribed aminocaproic acid. One week later, there was no improvement and he was forwarded to an urgent appointment with a pulmonologist. Bronchoscopy showed anthracosical pigmentation in the right bronchial tree. Cytological diagnosis showed acute inflammatory process and *Streptococcus aureus* multisensible was found in the bronchial swill. Thoracic CT was performed, showing a cavitated image 3 cm in diameter and filled with liquid and gas in the lower right lobe, which was described as the likely source of the hemorrhage. He was prescribed ciprofloxacin 500 mg bid for 8 days and fluconazole 100 mg/day for 2 weeks. Three months later, he was reevaluated and showed no symptoms. Follow-up CT scan was performed and revealed the same cavitated image, now measuring 8 × 24 mm, with no liquid inside. As a result of this improvement, fungal infection was assumed comparatively.

**Conclusions.** Patients with history of exposure to industrial/labor dust have, according to the latest evidence, increased risk of fungal infections (in form of cavitated injuries, masses, etc.). We should suspect such injuries if there are images of anthracosis in the bronchial tree when bronchoscopy is performed.

**Key words:** anthracosis, laboral exposure, risk for infections

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# The impact of medical staff competencies on salary calculation in primary care

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## Abstract

**Background.** Limited financial and infrastructural resources, but above all, lack of staff, and at the same time increasing needs and awareness among patients, are the leading problems faced by the healthcare system in Poland. The scientific findings show that efficient and effective patient care in primary care facilities depends largely on the scope and the level of medical staff competence.

**Objectives.** This research investigates the issue of assessing the impact of the competence level on the medical staff salary calculation. The competence level was determined by its scope, systematization, core, and the role it might play in patient care.

**Materials and methods.** The research methodology is based on literature analysis, systematic review and brainstorming carried out in the Medical and Diagnostic Center in Siedlce (Poland). The search and analysis were carried out in electronic databases to identify published studies on medical staff competence level and its impact on salary calculation.

**Results.** In the research and analysis process concerning the subject of medical staff competencies, it was found that skills and knowledge are the most vital among other competences. The practical analysis undertaken in medical facility show, that the most important indicators are:

1. 85% real use of working time;
2. delivery a key medical procedure in 25%;
3. delivery a key and technical medical procedure in 65%;
4. team work assessment by supervisor;
5. implementation of the educational process.

The above-mentioned indicators related to medical staff competencies, should be measured and analyzed in the 6-month time period.

**Conclusions.** Identification and enhancement of the competence level as a part of salary calculation may have a crucial influence on managing of the patient care process in primary care.

**Key words:** medical staff, competencies, patient care, salary calculation

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# Appliance of social marketing in prevention of gynecological cancers after pandemic COVID-19

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## Abstract

**Background.** Gynecological cancers continue to be a significant epidemiological problem worldwide. The best tools to counter the rising trends in morbidity and mortality from these diseases are prevention and early diagnosis. Social marketing is one of the health promotion tools used to change populations' behaviors and attitudes.

**Objectives.** The study aimed to characterize and compare the use of social marketing in the prevention of gynecological cancers in Poland and the USA.

**Materials and methods.** This is a collective case study analyzing 5 social campaigns from Poland and 5 social campaigns from the USA on gynecological cancer prevention.

**Results.** There are more materials from American campaigns on the prevention of gynecological cancer, where more organizations, both state and NGO, are involved in promotional activities. In Poland, the campaign focus was on singular cancers, whereas American campaigns are designed to include all existing gynecological cancers. Analyzed initiatives usually evoked positive emotions (3 out of 5 Polish campaigns and 4 out of 5 American campaigns), encouraging women to participate in preventive examinations and increasing their knowledge about gynecological cancers. Two Polish campaigns and 1 American campaign structured their messages to cause concern. Two Polish campaigns organized free tests or vaccinations, while 1 American campaign did so. Unlike in the USA, in Poland, public figures were the faces of the campaigns. Gynecological cancer survivors were often promoting the campaigns in both countries. The most frequently used social media platform was Facebook (62.4% in the USA and 78.9% in Poland).

**Conclusions.** The possibilities of implementing social marketing tools in the prevention of gynecological cancers are still not sufficiently used in both countries. The overall assessment is that the social campaigns concerning gynecological cancer in the USA are slightly better prepared compared to Polish activities regarding the use of social marketing in the prevention of gynecological cancers.

**Key words:** social marketing, prevention, gynecologic cancers

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# The relationship of lifestyle and attitude towards medical treatment and COVID-19 vaccinations

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## Abstract

**Background.** Vaccination is considered to be the best tool to stop a pandemic. However, this method requires a high level of public support to be effective, and numerous studies show concerns about vaccines. The subject of fears and attitudes regarding vaccination has therefore become a challenge for public health experts and an interesting area for research.

**Objectives.** The study aims to determine the profile of patients not vaccinated for COVID-19.

**Materials and methods.** Two research methods will be used in the study. First, an online survey (CAWI) will be used and distributed by e-mail to all invited to the survey or filled in with the respondent during the visit. The survey will consist mainly of closed questions. A total of 380 respondents will be randomly selected to ensure a measurement error of 5%. Second, 10 individual in-depth interviews (IDI) will be conducted by phone with respondents (or during their visit to the facility) who would consent to participate in the survey. The purpose of the interviews will be to explain the phenomena identified from the results of the survey. The study will aim to determine the socio-demographic characteristics, general health, motivation, and lifestyle of the respondents.

**Results.** Cluster analysis will be performed to analyze the results. The analysis will allow for differentiation of the responders in terms of health, lifestyle and motivation (each variable will be analyzed individually) by gender, age, place of residence, etc.

**Conclusions.** The obtained results may indicate how lifestyle and adherence to preventive measures influence the attitude towards COVID-19 vaccinations. Conclusions from the study can be used in designing future preventive interventions with a broad reach.

**Key words:** COVID-19, vaccination uptake, vaccinations

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# One health: co-benefits for patient and planet

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## Abstract

**Background.** Planetary health and the “one health” concept are unavoidable. Nowadays, we cannot imagine not defining our discipline without taking into account the whole planet. The holistic approach already in the definition of our discipline has to be enhanced. We must integrate planetary health into our rural practice for the co-benefit of our patients, people, communities, and the planet.

**Objectives.** To reflect how to decrease our carbon footprint in our daily practice, to be aware of our importance as family doctors as a role model, as well as to produce data to be carefully monitored.

**Materials and methods.** Two years ago, a working group was created inside the French Collège de la Médecine Générale (CMG). It was called “Santé planétaire” [Planetary health] (<https://lecmg.fr/sante-planetaire-gt/>). This group, consisting of 20 members, has already produced documents for general practitioner (GPs) to use during their daily work, such as posters or documents including bibliography and data. Some members of our group are involved in the initial curriculum for students in some French universities. We also attend French conferences with posters, oral communications and workshops. Among other subjects, we would like to list all we can do in our daily practice to decrease our carbon footprint and highlight our importance as role model for our patients. Our task is to collect data, produce reports and recommendations, and make them available to GPs.

**Results.** In the coming years, we expect to increase the numbers of GPs changing their behavior and attitude.

**Conclusions.** The co-benefit for the patient and the planet with the “one health” concept has to be implemented slowly and practically, if we expect a sustainable behavior change in GPs’ daily practice.

**Key words:** planetary health, behavior change

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# Pilot project: Influence of diet and physical activity in pregnant women from rural areas

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## Abstract

**Background.** Over the last 10–15 years, different studies have been appearing that try to explain the exponential increase in people in the world who are overweight and obese, especially children. Different studies are relating the quality of food during pregnancy with the health and BMI of mothers and children, not only during childhood but also adulthood. We intend to test the methodology and the questionnaires for a future study, the objective of which is to know the eating habits and physical activity of pregnant patients from different basic rural health areas in our region, as well as the relationship between these habits and their influence on both children's birth weight and their mothers' BMI. In addition, this study will seek to analyze the possible influence of other factors such as maternal age, socio-economic and cultural level, diseases or comorbidities such as gestational diabetes, pre-eclampsia and high blood pressure, among other endpoints. This project would be a great opportunity to show possible differences in the eating patterns of pregnant women who live in rural areas, where it is not so common to carry out analyses of this type. This pilot study would also give us information about the weak points of the study, so that we could improve the actual research and reduce the loss of information.

**Objectives.** To test the questionnaires related to the study named above, as well as examine the eating habits and physical activity of pregnant patients from a rural health area of Valladolid, and the possible relationship of these habits with their children's weight at birth and their mothers' BMI.

**Materials and methods.** Design: Prospective observational study.

Scope: Primary Care Center Portillo, East Valladolid, Spain.

Population: pregnant and postpartum women reporting to the Portillo Clinic.

Variables under study: age, ethnicity/race, country of origin, civil status, socioeconomic level, level of studies, job occupation, number of members of the family nucleus, pregnancy trimester, weight [kg], height [cm], BMI, blood pressure (BP), heart rate (HR), weight of the baby at birth [kg], height of the baby at birth [cm], number of previous pregnancies (term, abortions), weight of the child in case of previous pregnancies carried to term, existing comorbidities such as type 2 diabetes mellitus, hypertension, dyslipidemia, etc; adherence to the Mediterranean diet, eating habits, physical activity habits.

**Results.** Eleven surveys were conducted, each made up of 4 questionnaires. The IPAQ was the questionnaire most difficult to answer and interpret. The sections reporting the adherence to the Mediterranean diet and the eating habits were successfully completed by all the participants, but the last one was found to be quite unspecific. Related to the general questionnaire, the questions least answered were the ones related to ethnicity/race, level of studies, socio-economic level, data related to weight, size, BP and HR of previous trimesters, and diets followed before pregnancy.

**Conclusions.** Another validated questionnaire related to physical activity habits should be identified/developed, or IPAQ should be better explained. A more specific and complete eating habits survey should be

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## Poster presentation (P-21)

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used in order to obtain better data in the final study. Questions related to ethnicity/race, level of studies, socio-economic level and diets followed before pregnancy should be better explained. Another way of collecting vital signs should be used.

**Key words:** pregnancy, prenatal nutrition, nutrition surveys, feeding behavior

# PEST analysis for the deployment of an urban health center in Kinshasa, Democratic Republic of Congo

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## Funding sources

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## Conflict of interest

None declared

## Abstract

**Background.** The Orthodox Church in Democratic Republic of Congo (DRC; Archdiocese of Central Africa) has recently completed the construction of a health center (HC) in Kinshasa.

**Objectives.** The aim of this study is to contribute to the HC strategic plan by means of a PEST (Political, Economic, Social and Technological) analysis.

**Materials and methods.** The PEST analysis was used and the findings were included in the strategic plan. The concept of urban primary HCs, already implemented in some European countries, such as Greece, was used as a model. This concept was subsequently adapted in the local context. Quality of care and accessibility of the services provided were at the heart of the planning.

**Results.** The PEST analysis included the description of the HC as well as the analysis of the political, economic, social and technological environment. Political environment is mainly determined by the legislation of the DRC and the Orthodox Church regulations. Economic and social environment analysis included factors such as poverty indices, fees of services and out-of-pocket health expenditure. The potential use of electronic health record files was included in technological environment analysis.

**Conclusions.** An existing successful model for primary healthcare services abroad may be adapted to a local context during the strategic planning phase. This adapted model, if proved successful, could subsequently be applied to other HCs run by the Orthodox Church in the DRC or other countries.

**Key words:** rural care, community care

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# SWOT analysis for the deployment of an urban health center in Kinshasa, Democratic Republic of Congo

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## Abstract

**Background.** The Orthodox Church in Democratic Republic of Congo (DRC; Archdiocese of Central Africa) has recently completed the construction of a health center (HC) in Kinshasa.

**Objectives.** The aim of this study is to contribute to the HC strategic plan by means of a SWOT analysis before the full operational deployment of the HC facility.

**Materials and methods.** The SWOT analysis is a useful tool to analyze the strengths, weaknesses, opportunities and threats of an organization regarding its internal and external environment.

**Results.** The objective of the Kinshasa HC is to improve the healthcare services provided in the area. Strengths include the existing, owned building, the proximity of the Orthodox University of Congo, previous experience of running orthodox church HCs as well as the test operation of the HC. Weaknesses include the minimal budget available and the unavailability of regular sources of income. This requires intensive fundraising, at least in the beginning of deployment. Opportunities include the good relationships with the authorities and the known problem with accessing healthcare which the HC seeks to address. Threats include the legal requirements and associated legal risks, the disease burden in the region/population, the mismatch between population needs and available resources, the effects of climate change in the area, epidemic diseases outbreaks, and poverty which makes it difficult for people to significantly cover healthcare costs.

**Conclusions.** The planning and operation of a HC with a minimal budget in a poorly resourced setting is a complex process that requires a structured evaluation of the available options and solutions. A SWOT analysis has proven to be helpful during the strategic planning stage.

**Key words:** SWOT analysis, strategic analysis, quality of care, primary healthcare

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# The Blue Book and the alliance project for the reform of primary care in Italy: A focus on rural setting

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## Abstract

**Background.** In the WHO recommendations, the need for a radical transformation of all welfare systems according to an integrated, multi-professional and multi-sector perspective is emphasized. These changes must be implemented mainly at the territorial level, requiring an active participation of the communities. In the literature, this is called Comprehensive Primary Health Care (C-PHC). One of the main obstacles to its effective implementation lies in the training of healthcare professionals, which unfortunately too often takes place almost exclusively in large city hospitals, both in the pre- and postgraduate phase. Rural areas need healthcare personnel specifically trained to work in rural settings.

**Objectives.** In Italy, the “Primary Health Care: Now or Never” campaign wanted to offer a platform in which to develop a bottom-up proposal, inviting professionals and citizens to contribute their skills and experiences to the promotion of the C-PHC principles. This campaign was supported and approved by the European Rural and Isolated Practitioners Association (EURIPA).

**Materials and methods.** In September 2020, the PHC Campaign published an open manifesto on the reform of primary care in Italy, the proposal outlined 12 points from which to start to reform Primary Care from a PHC perspective. A participatory collective writing process lasted a year and involved about 200 people from all over Italy: doctors, students, public health specialists, anthropologists, nurses, psychologists, physiotherapists, and local administrators.

**Results.** In September 2021, the *Blue Book for the reform of Primary Care in Italy* was published, which includes 12 fundamental pillars: 1) Health as a fundamental human right; 2) New paradigm for health safeguard; 3) Primary care model: comprehensive primary health care; 4) Strengthening of the health district; 5) A community-based, territorial primary health care; 6) Adaptive policies and lifelong rural medical training; 7) Primary healthcare centers; 8) Community participation; 9) Integrated primary healthcare teams and networks; 10) Primary healthcare as an academic discipline; 11) Training and research in primary care including rural areas; 12) A new contractual framework for a new model of primary healthcare.

**Conclusions.** After the COVID-19 pandemic, a new vision of the national healthcare system in Italy is needed, based on primary care, according to the C-PHC approach, as indicated by the WHO. In March 2022, 12 collaborating associations, including EURIPA, adopted the proposals of the *Blue Book*, founding the Alliance for the Reform of Primary Care in Italy, with the aim of redesigning and enhancing rural medicine, in order to bring back community medicine to the center of the national healthcare system in Italy.

**Key words:** primary care, integrated primary healthcare, rural areas

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# Optimize prescription avoid shortages and fight against antibiotic resistance

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## Abstract

**Justification.** Antibiotics have reduced mortality from infectious diseases, but their uncontrolled use contributes to the spread of resistant bacteria, which are increasingly difficult to treat, in both humans and animals. Shortage of medicine comes to complicate the prescriptions; our duty more than ever is the optimization.

**Objectives.** Preparing for a reasoned and thoughtful prescription

**Organization of the WS.** Outline: 10 min of presentation, 40 min of work on small group, 30 min of discussion, 10 min of conclusion.

**Participation of the delegates.** Three last antibiotic prescription (diagnostic, (suspect or confirm, with tool), choice of AB, duration, pathology, access to pharmacy. What would you have done in case of shortage?

**Expected outcomes.** Better prescription, better anticipation, better managing.

**Key words:** antimicrobial resistance (AMR), shortage of medicine, optimization, quaternary prevention (P4)

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# Family medicine: Describing and mapping the pro and cons of working in rural areas in different European countries

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## Abstract

**Justification.** Forty-eight percent of the world population live in rural areas. The global health workforce suffers long-term understaffing in remote and isolated areas. The literature on recruitment and retention is substantial. Some well-known factors attracting doctors to work in rural areas are rural upbringing, exposure to rural healthcare during education, good possibilities for targeted post-graduate training, availability of work and schooling for spouse and children, community engagement, and peer networks. Recent studies from the Czech Republic and Scotland on motivating factors for doctors to work in rural areas give some insight and inspiration to further mapping of what attracts young doctors for rural work. Satisfaction with working life is an important predictor of general practitioners' (GPs) retention. Therefore, it is important to understand working life satisfaction of rural GPs.

**Objectives.** 1) Understanding the situation in different European countries; 2) Formulating strategies to motivate young family doctors to work in rural areas; 3) Looking at the pull and push factors or the barriers and chances; 4) Identifying gaps in undergraduate and postgraduate education; 5) Providing proposals of improving the situation.

**Organization of the WS.** Introduction/background. Presentation research/survey. Information from national representatives. Small group discussion. Plenary discussion. Co-chairs closing remarks.

**Participation of the delegates.** Interactive participation.

**Expected outcomes.** This workshop could help us to target both European and country-specific measures in under- and postgraduate education of doctors. Future research should explore why rural GPs are more likely to leave despite higher job satisfaction.

**Key words:** rural general practice, education

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# POCUS: The modern tool of the future clinical-ultrasound examination that could apply to future European primary healthcare

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## Abstract

**Justification.** The point-of-care ultrasonography (POCUS) performed by the clinician at the site of patient care, both in the medical office or at home, is an important tool to guide the case management for early diagnosis and to increase diagnostic accuracy. It turned out that in addition to increasing the quality of the examination and the positive results in terms of patient management, there is a decrease in costs in the medical system and a relief in the emergency system. The benefits were demonstrated during the COVID-19 pandemic, when patient mobility became extremely low, especially in remote and rural areas.

**Objective.** Participants will receive practical information and tips on new POCUS applications in family practice. The participants of this POCUS workshop will be educated according to the latest European Federation of Societies for Ultrasound in Medicine and Biology (EFSUMB) guidelines in the field of clinical ultrasonography. The main purpose of this study was to establish some POCUS applications for family doctors based on their expectations in current medical practice. Indications of POCUS are the detection of stones/tumors, pathologic fluid/gas accumulation, enlarged organs, digestive tube paresis, aneurysms and obstruction of vessels, and pleural recesses effusions. All of these present a typical ultrasound pattern, and simple diagnostic criteria can be used. In connection with the clinical picture, the diagnosis could be very accurate and enough to start the treatment.

In the 1<sup>st</sup> step, we used brainstorming and conducted an online POCUS survey about what we can apply in primary care with participants. In the 2<sup>nd</sup> step of this workshop, we will do a POCUS hands-on session giving presentations of the standard plans and views for the topographical regions. We need training and quality standards to ensure that this will be done in a way with positive benefits for our patients. It will need to be useful in the implementation of ultrasound standards and practice guidelines at primary care level. It involves personal contact between doctor and patient at the bedside; it is a fast in real-time method – repeatable, cheap and innocuous but dependent on the experience and expertise of the examiner.

A new opportunity for POCUS represents the application in primary care aspects of the medical projects related to the use of “telemedicine” connections among specialists and family doctors for enhanced patient management. The educational needs of GPs regarding the new methods and technologies are increasing, but the resources and infrastructure are still limited. It is thus necessary to collaborate among the family physicians’ trainers or academics, on the one hand, and specialty physicians on the other hand in the preparation and continuing medical education in family medicine. Early diagnosis can help to save many patients in primary care, based on concepts of good clinical practice. Therefore, we need to involve them to inform family physicians about the latest diagnostic and treatment protocols in clinical ultrasound.

**Organization of the WS.** The workshop will include an interactive presentation and practice examples with ultrasound movies, role-plays and a short hands-on session; the participants will debate lectures and practical demonstrations regarding selected applications of POCUS in family medicine. Participants will enter the ultrasound semiology data on various smart software and artificial intelligence (AI) that will be presented, as a tool of support for unqualified doctors in POCUS. These Smart Ultrasound Software has been designed in the form of a modern diagnostic algorithm and is a novelty in the POCUS field.

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**Participation of the delegates.** Interactive communication with the participants, who will answer questionnaires and choose ultrasound applications. In addition, we will have a hands-on session in which they will practically perform certain types of POCUS applications.

**Expected outcomes.** We want to be the initiators for the recommendation to use some POCUS applications (at basic level) to increase the accuracy of diagnosis in family doctors' offices. Because of a significant number of advantages, ultrasonography should be a diagnosis tool besides the stethoscope in general practitioners' (GPs') offices. Early diagnosis can help to save many patients at the primary care stage, based on notions of good clinical practice (GCP). Accuracy of the POCUS screening in primary care was very high in our study compared to the final diagnosis established by specialist physicians. Therefore, this will help to inform family physicians about the latest diagnostic and treatment protocols in clinical ultrasound.

**Key words:** POCUS, ultrasonography, triplex-Doppler, elastography

# Rural health education sample for undergraduate medical students: CADIR

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## Abstract

**Justification.** Rural health education for undergraduate medical students.

**Objectives.** The aim of this workshop is to share the experiences of a sample from Turkey called CADIR and critique the method of rural health education for undergraduate medical students. The CADIR has a bi-directional aim which provides rural healthcare service for the socio-economically disadvantaged rural community while providing rural healthcare experience to medical students in an early stage of their education, as well as occupational experience by meeting patients in their real-life environment.

**Organization of the WS.** In the beginning, the community established the project with the motto 'Everyone is equal, and everyone has the right to free health care'. Although Bursa is a province located in western Turkey, there are socio-economically disadvantaged villages. The villages chosen for this project were located in that region. CADIR is a student society project and, at every stage, the students do the entire work by themselves. The project is purely voluntary. At every stage, students take responsibility for everything. Months before the date set for the project, a team chooses a village with inadequate or no healthcare, and seeks financial support for medicines and medical supplies. When the donation is insufficient, the missing items are requested from the Uludag University Hospital. In addition to providing healthcare in a dedicated tent, the school in the village can be transformed into a healthcare center in response to the increasing demand. During the weekend, medical students from every grade, interns, faculty members from the Department of Family Medicine, and other volunteer staff work together in the same tent within a field context. This is a unique interaction between experienced and inexperienced. Students and interns pay home visits for patients who cannot come to the tent. People living in the village are surveyed and their results are used in public health studies.

**Participation of the delegates.** Interactive participation while criticizing CADIR.

**Expected outcomes.** 1. Evaluation of CADIR. 2. Inspiring other medical schools about rural health and CADIR. 3. Promoting rural health education.

**Key words:** rural health, undergraduate education, medical school

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# Strengthening the community of practice of rural educators in general practice

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## Abstract

**Justification.** Rural communities are often deprived of adequate primary care services because of difficulties recruiting healthcare professionals. Recruitment can be improved by exposing healthcare students to rural communities and clinical practices (WHO 2021). Local educators are essential for this work. A community of practice (CoP) allows for connection, empowerment and advancement of educators and rural primary care education. In June 2022 at the World Rural Health Conference, a CoP of rural medical educators in primary care was set up. To strengthen this community various real and remote social gatherings are paramount as it is well recognized that a CoP only flourishes when people get and take the opportunities to ‘think together’. People mutually guide each other through their understanding of the same problems in their area of mutual interest (here: medical education in rural primary care), and in this way learning and development takes place. A workshop at the European Rural and Isolated Practitioners Association (EURIPA) conference offers a unique opportunity to gather people with an interest in rural medical education in primary care and extend and strengthen the CoP.

**Objectives.** The participants will collectively discuss and discover how a CoP can enhance the value attached to rural placements and share possible solutions to barriers like time, funding and stakeholder engagement. They will determine how the CoP can support shared learning by dissemination of good practice examples and learning resources using online communication technologies.

**Organization of the WS.** Small groups will discuss and discover how a CoP can enhance the value attached to rural placements and share possible solutions to barriers; the small groups will feedback to the larger group.

**Participation of the delegates.** Active participation.

**Expected outcomes.** Extension and strengthening of the CoP of rural educators in primary care. This will help rural practices and potentially can be something EURIPA actively supports in the future.

**Key words:** medical education, rural health, communities of practice

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# Implementing social prescribing in your practice and community

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## Abstract

**Justification.** Social prescribing is a mean of referring patients in primary care to activities within their community that could improve their health and wellbeing, often also addressing isolation and loneliness. These sources of support can offer a wide range of activities such as craft groups, dancing, photography, or gardening, all of which enable people to meet with other people on a social basis. There are other advantages to social prescribing in terms of reduction in practice visits, building social capital, the personal development of individuals, and benefit to the community. The pandemic has demonstrated that communities have an inherent resilience, and social prescribing taps into this, and looks at further developing and strengthening this using an integrated approach between primary care, the community and voluntary sector and the community.

The World Organization of Family Doctors (WONCA) Special Interest Group on Social Prescribing and Community Orientation has been established in July 2022. The group evolved through sharing experiences, and currently utilizing available evidence on social prescribing is constructed a Matrix for communities and practices to assist embedding social prescribing in primary care and in the community. The concept of a Matrix is based on the involvement of European Rural and Isolated Practitioners Association (EURIPA) in developing a framework for improving patient safety in European rural practice by 'rural proofing' the Manchester Patient Safety Framework (MaPSaF) in 2013. The Matrix for Social prescribing and community engagement was developed from the ground-up using the data from 3 successful workshops held at the general medicine conference in France in March 2022, at the WONCA World Rural Health Conference in Limerick (Ireland) in June 2002 and the WONCA Europe Conference in London in July 2022. The recently published WHO tool kit was furthermore used in referencing the Matrix (<https://www.who.int/publications/i/item/9789290619765>)

**Objectives.** Workshop to engage participants and through them their practices and their communities with the Matrix for social prescribing and community engagement and to identify the applicability and acceptability.

**Organization of the WS.** The workshop will see participants discussing and further developing the Matrix. Further feedback will be sought from the participants when they return to their practice and communities to see how their teams and communities view the applicability and acceptability of the Matrix for social prescribing and community engagement.

**Participation of the delegates.** Active participation.

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**Expected outcomes.** To ensure applicability and acceptability of the Matrix for social prescribing and community engagement. The Matrix will then be used for further research on the implementation of social prescribing in Europe.

**Key words:** general practice, primary care, social prescribing, community engagement

Matrix for development and implementation of social prescribing and community engagement. Stage 1 is under-developed, while Stage 5 is fully developed

No.	Key performances indicators of social prescribing and community engagement	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
1.	Overall commitment to social prescribing and community engagement					
2.	Priority given to social prescribing and community engagement					
3.	Capacity in community and voluntary sector					
4.	Mapping of available activities and community groups					
5.	(primary care) multi-disciplinary team awareness, understanding and engagement of social prescribing and community engagement					
6.	Referral pathways (can include 'link workers')					
7.	PR/community awareness and acceptance of social prescribing and community engagement					
8.	Governance of community activities and referral pathways					
9.	Person-centered approach and broad variety on offer with consideration for 'what matters to you' and practical barriers like transport					
10.	Integrated approach (primary care sector, community/voluntary sector, community/patients etc.)					
11.	Feedback system (outcomes and outputs), evidence, sharing of good practice					
12.	SP within UG, PG curriculum and CPD					