EGPRN

EUROPEAN GENERAL PRACTICE
RESEARCH NETWORK

88th Meeting

of the

European General Practice Research Network

Abstract Book

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9 - 12 May 2019

Tampere - Finland

www.egprn.org

COLOPHON

Abstract Book of the 88th Meeting of the European General Practice Research Network
Tampere - Finland, 9 - 12 May 2019

Editor-in-Chief:

Editors:

Host Organising Committee (HoC):

Scientific Committee:

Editorial Office:

- Mrs. Mine Kaya Bezgin, EGPRN Secretary
  e-mail: office@egprn.org
- Mr. Burak Usgurlu, EGPRN IT Manager
  e-mail: burak@uskur.com.tr

This book is available on the EGPRN website: www.egprn.org

ISBN 978-90-829673-3-3

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Foreward

"Research on Multimorbidity in Primary Care"

Dear colleagues and researchers,

Multimorbidity is understood as coexistence of multiple health conditions in an individual. The number of people suffering from multimorbidity is rising driven by aging populations, but also by growing burden of non-communicable diseases and mental health problems. Multimorbidity is highly heterogenous varying from multiple conditions in frail elderly to combinations of mental health disorders and substance use. Depending on definition it is estimated that every fourth adult and two in three of patients over 65 years of age are multimorbid. In primary care these estimates are even higher and multimorbidity is a norm among elderly adults.

Multimorbidity is associated with reduced quality of life, impaired functional status, worsened physical and mental health, increased mortality and increased use of health and social care services with associated costs.

There is a broad international consensus that the patient-centered comprehensive approach with continuity is the key element in the care of multimorbid patients. However, there are only few randomized controlled trials on the effectiveness of care model for multimorbid patients. In the largest recently published multisite cluster-randomised 3D trial, intervention, including all the essential elements of optimal care, had no effect on quality of care or various elements of illness and treatment burden, but it significantly improved patient-centred care (1).

In 2017 over 500 studies were published on multimorbidity based on Pubmed search. However, we don't know yet which multimorbidity clusters cause the greatest burden and what are the determinants of these clusters? No long-term cohort studies regarding multimorbid patients have been published.

NICE guideline on Multimorbidity was published in 2016 (2). Chair of the guideline's development group, professor Bruce Guthrie from Dundee, UK will be the keynote speaker on Friday at EGPRN in Tampere. At the Tampere meeting, in addition to the keynote, we will have a chance to hear the latest research on multimorbidity in theme papers. Moreover, among others we will have a pre-congress-workshop regarding the congress theme. The Finnish national GP congress will be combined with EGPRN, and the Finnish participants will have a special opportunity to experience the EGPRN spirit in Tampere together with the national meeting.

On behalf of the Finnish Association for General Practice, Tampere University and the local organizing committee it is our great pleasure to welcome you to the 88th EGRPN meeting at Tampere in the beginning of May. We hope you enjoy the congress, northern daylight abundance and your stay in Tampere, Finland.

(1) Salisbury C et al. Management of multimorbidity using a patient-centred care model: a pragmatic cluster-randomised trial of the 3D approach. Lancet 2018; 392: 41–50
(2) Multimorbidity: clinical assessment and management (NICE guideline) https://www.nice.org.uk/guidance/ng56

Host Organising Committee

- Acting prof Tuomas Koskela (Chair, EGPRN National Representative of Finland)
- Prof Elise Kosunen
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- GP Suvi Hämäläinen

Programme

Thursday, 09th May 2019

09:00 - 13:00	**EGPRN Collaborative Study Group Meetings - COGITA** Location: E222 Location: E222 Detailed meeting program available here: https://meeting.egprn.org/page/cogita
09:30 - 13:00	**EGPRN Executive Board Meeting** Location: C5 Only for Members of the Executive Board Location: C5
10:00 - 13:00	**EGPRN Collaborative Study Group Meeting - Family Violence** Location: A08 Location: A08
10:00 - 11:00	**EGPRN Collaborative Study Group Meeting - Googling in the Waiting Room** Location: A06 Location: A06
10:00 - 13:00	**EGPRN Collaborative Study Group Meeting - HEFESTOS Study** Location: A07 Location: A07
11:00 - 13:00	**EGPRN Collaborative Study Group Meeting - PIPE Study** Location: A06 Location: A06
13:00 - 14:00	**Lunch** Price not included in conference fee.
14:00 - 17:00	**EGPRN Collaborative Study Group Meeting - COGITA** Location: E222 Location: E222 Detailed meeting program available here: https://meeting.egprn.org/page/cogita
14:00 - 17:00	**EGPRN Council Meeting** Location: A32 Only for EGPRN Executive Board and EGPRN Council members. Location: A32
14:00 - 16:30	**Pre-Conference Workshop 1: Writing for Publication – Meet the Editors for Tips and Tricks!** Location: A05 Speakers: Jelle Stoffers (Editor in Chief, Europen Journal of General Practice, Helena Liira (Editor in Chief, Scandinavian Journal of Primary Care) Location: A05

	Registration required. Please see: https://meeting.egprn.org/page/writing-for-publication-%E2%80%93-meet-the-editors-for-tips-and-tricks%21
14:00 - 16:30	**Pre-Conference Workshop 2: Multimorbidity Research Agenda as An Example for a Formalised Consensus Procedure** Location: A06 Speakers: Jean Yves Le Reste and Patrice Nabbe, University of Western Brittany, Brest, France Location: A06 Registration required. Please see: https://meeting.egprn.org/page/multimorbidity-research-agenda-as-an-example-for-a-formalised-consensus-procedure
14:00 - 16:30	**Pre-Conference Workshop 3: How to formulate a good research question?** Location: A07 Speakers: Pekka Mäntyselkä, Elise Kosunen, Markku Sumanen, Aleksi Varinen Location: A07 and C5 Registration required. Please see: https://meeting.egprn.org/page/how-to-formulate-a-good-research-question
14:00 - 16:30	**Pre-Conference Workshop 4: Multimorbidity – The Copenhagen Approach** Location: A08 Speaker: Volkert Siersma, University of Copenhagen Location: A08 Registration required. Please see: https://meeting.egprn.org/page/multimorbidity-%E2%80%93-the-copenhagen-approach
16:30 - 18:30	**EGPRN Collaborative Study Group Meeting - Multiple Projects** Location: A08 Location: A08
17:00 - 18:00	**EGPRN Committee Meetings and Working Groups** - EGPRN Research Strategy Committee - A05 - EGPRN PR & Communication Committee - A06 - EGPRN Educational Committee - A07
19:00 - 20:30	**Welcome Reception and Opening Cocktail.** Location: Tampere City Hall. https://goo.gl/maps/hd3A4qXvgbt. Invitation is required! Invitations will be delivered at the registration desk.
20:30 - 22:30	**Get Together Party at Pyynikin Brewhouse Pub** Room for 200 people have been booked at Pyynikin Brewhouse Pub for a get together party. Self paid drinks and food will be available.

Friday, 10th May 2019

08:00 - 08:30	**Registration** Location: Main Lobby
08:30 - 08:45	**Opening of the Meeting by EGPRN Chairperson** Location: A1 Speaker: Davorina Petek Location: Juhlasali
08:45 - 09:00	**Welcome by Local Host** Location: A1 Location: Juhlasali
09:00 - 09:40	**International Keynote Lecture** Location: A1 Speaker: Bruce Guthrie, Professor of Primary Care Medicine, University of Dundee Title: The challenge of multimorbidity for health services and researchers Chair: Davorina Petek Location: Juhlasali
09:40 - 11:10	**Plenary Session - Theme Papers: Multi-morbidity and Polypharmacy** Location: A1 Chair: Davorina Petek Location: Juhlasali **Presentations:** • Barriers and Enablers to Deprescribing in Older Patients With Multimorbidity and Polypharmacy - Sven Streit • Multimorbidity and Polypharmacy in Canada: Examining Prevalence and Patterns in Primary Health Care Using a National Electronic Medical Record Database - Kathryn Nicholson • Multimorbidity in primary care: Interdisciplinary person centred disease management - Sabine Bayen
11:10 - 11:40	**Alphabet Coffee Break** Location: Main Auditorium Foyer and Portrait Foyer
11:10 - 11:40	**Coffee Break** Location: Main Auditorium Foyer Location: Main Auditorium Foyer
11:40 - 13:10	**Parallel Session A - Theme Papers: Disease Management** Location: A1 Chair: Jelle Stoffers Location: Juhlasali **Presentations:** • Complex Multimorbidity - Preavalence and Workload - David Rodrigues • Further development and validation of the Multimorbidity Treatment Burden Questionnaire (MTBQ) - Polly Duncan • INterprofessional follow-up of PATIents with Cancer (SINPATIC study): an exploratory study of patients - William Mirat

11:40 - 13:10 **Parallel Session B - Freestanding Papers: Multi-morbidity**
Location: A4

Chair: Peter Torzsa
Location: A1
Presentations:

- Anticholinergic burden and most common anticholinergic-acting medications in older general practice patients - Eva Cedilnik Gorup
- Identifying high-need patients with multimorbidity based on their primary care medical records - Marianne Heins
- Multi-morbidity or dual pattern of diseases among Negev Bedouins? Approach to multi-morbidity in communities under transition - Mohammed Morad

13:10 - 14:10 **Lunch**

13:10 - 14:10 **Research Café!**

Location: Restaurant Juvenes, 2nd floor cabinets 230
Do you have any questions about research that you are doing or would like to do?
Ask the EGPRN's experts at the lunchtime *"Research Café"!*
Lunchboxes will be available in the meeting room.

14:10 - 16:10 **Parallel Session C - Theme Papers: Multi-morbidity and the Patient Perspective**
Location: A1

Chair: Kathryn Hoffmann
Location: A1
Presentations:

- Bringing together older multimorbid patients with polypharmacy, general practitioners, and eHealth: protocol of a cluster randomized controlled trial in Swiss primary care - Katharina Tabea Jungo
- Continuity of care is associated with patient satisfaction among multimorbid patients - Emmi Lautamatti
- Measuring needs and expectations in life when living with multimorbidity - development and validation of the MMQoL scale - Kristine Bissenbakker
- Quality of life among older adults living with multimorbidity: findings from the European SHARE database - Tatjana T Makovski

14:10 - 16:10 **Parallel Session D - Freestanding Papers: Tools and Technology in General Practice**
Location: A4

Chair: Ayse Caylan
Location: A4
Presentations:

- Comparison of Patient Enablement Instrument to two single-item measures - Elina Tolvanen
- Feasibility of a checklist in treating hypertension in primary care – base line results from a cluster-randomised controlled trial (check and support) - Aapo Tahkola
- Implementation of video recording with immediate feedback in real-time consultation in general practice - Tan-Trung Phan
- The effect of electronic reminders on the recording of diagnoses in primary care: a longitudinal follow-up study. - Tuomo Lehtovuori

16:10 - 16:30 **Coffee Break**

Location: Main Auditorium Foyer

16:30 - 18:00 **Parallel Session E - Thema Papers: Longitudinal Trends in Multi-morbidity**
Location: A1

Chair: Miguel Angel Muñoz Pérez
Location: A1
Presentations:

- Comorbidity in family medicine – causal or casual? What is the effect of illness diversity? A longitudinal observational study in primary care. - Jean Karl Soler
- Longitudinal multimorbidity patterns in elderly population using Hidden Markov Models - Marina Guisado-Clavero
- Trends in multimorbidity and polypharmacy in the Flemish-Belgian population between 2000 and 2015 - Tine De Burghgraeve

16:30 - 18:00 **Parallel Session F - Freestanding Papers: Governance and Training in General Practice**
Location: A4

Chair: Lieve Peremans
Location: A4
Presentations:

- Forms and frequency of sanctions in primary healthcare in Macedonia - Marija Zafirovska
- Frequency and form of controls over primary health care physicians in Slovenia - Aleksandar Zafirovski
- Role of Educative Family Health Centers in Family Medicine Residency Programme of Turkey - Hasan Hüseyin Şahin

18:00 - 18:10 **Summary of the day**
Location: A1

Speaker: International Keynote, Prof. Bruce Guthrie
Chair: Davorina Petek
Location: A1

18:10 - 19:10 **EGPRN Collaborative Study Group Meeting - Örenäs**
Location: A06

Location: A06

18:10 - 19:15 **Practice Visits in and around Tampere**

Location: Tipotien Terveysasema https://goo.gl/maps/TjN1KgU1r3K2
Practice place is 3 km away from the venue. A bus will leave from the venue for the practice visit. Please sign up at the registration desk for a seat at the bus.

Saturday, 11th May 2019

08:30 - 09:10 **National Keynote Lecture**
Location: A1

Speaker: Prof. Elise Kosunen, Tampere University
Title: Multiprofessional primary health care and challenges of multimorbidity
Chair: Tuomas Koskela
Location: A1

09:10 - 10:40 **Parallel Session G - Freestanding papers: Quality of Care and the Patient Perspective**
Location: A1

Chair: Claire Collins
Location: A1
Presentations:

- Eleven Quality of life scales are available for the general population, nevertheless very few are reproducible and none has undertaken an external validation survey. - Lalande Sophie
- Quality of primary care (QUALSOPRIM) study: Professionals' Insights into the Patient Perspective: A Qualitative Study in the Field of quality of primary care. - Jérémy Derriennic
- The TATA survey: The translations of the WAI SR are homogeneous between Spain, Poland, Slovenia, France and Italy. - Fabienne Morvan

09:10 - 10:40 **Parallel Session H - EGPRN Special Methodology Session**
Location: A4

Chair: Jean Karl Soler
Location: A4
Presentations:

- Multimorbidity-Effect of multi morbidity on duration of stay in community ward - Aaseem Farid
- Research on multimorbidity-the time for paradigms change - Ljiljana Majnaric
- The Hawthorne Effect: systematic review and meta-analysis - Christophe Berkhout

10:40 - 11:00 **Coffee Break**
Location: Main Auditorium Foyer

Location: Main Auditorium Foyer

11:00 - 13:00 **Parallel Session I - Theme Papers: Risk Factors and Disease**
Location: A1

Chair: Sven Streit
Location: A1
Presentations:

- Associations of sociodemographic and clinical factors with perinatal depression among Israeli women - Limor Adler
- Factors associated with unplanned hospitalisations and emergency department visits among elderly people with multimorbidity and polypharmacy in primary care: the FOPAS cohort study - Julie Fabre
- High number of GP's visits and number of illnesses are risk factors for multimorbid patients. - Jean Yves Le Reste
- Lifetime Risk, Multimorbidity and Disease-Free Life Expectancy of Noncommunicable Diseases in the General Population: A Prospective Cohort Study - Silvan Licher

11:00 - 13:00 **Parallel Session J - One Slide Five Minute Presentations**
Location: A4

Chair: Ferdinando Petrazzuoli
Location: A4
Presentations:

- Do Patient Oriented General Practitioners / Family Doctors (GPs/FDs) with Internal Locus of Control have Lower Level of Burnout in Management of Multimorbidity? - Radost Assenova
- Does Time Restricted Feeding (16:8) reduce metabolic risk factors in pre-diabetic individuals who suffer from obesity more than the Caloric Restriction diet - Ilan Yeshayahu
- Feasibility, validity and reliability of Suuntima Customership Navigator Tool in Finnish primary health care - Riikka Riihimies
- Health time consumption by multimorbidity patients - Ana Carolina Reis Tadeu
- Physical activity prescription - Menashe Meni Amran
- The immigrant family doctors: The challenges of immigration and the impacts on Primary Care - Candan Kendir
- The impact of gender and multimorbidity on the management of type 2 Diabetes Mellitus - Sara Ares Blanco
- The relation between the somatization and fatigue as the chief complaint - Pemra C. Unalan

13:00 - 14:00 **Lunch**

14:00 - 15:30 **Poster Session 1 - Multimorbidity**
Location: Main Auditorium Foyer

Co-ordinator: Tiny van Merode
Chair: Erik Stolper
Location: Main Auditorium Foyer
Presentations:

- A study of expressed and unmet healthcare needs of the population of Brasov County Romania, in relation with family doctors. - Andrea Neculau
- Analysis of multimorbidity patterns in accordance with different prevalence cut-off points - Concepción Violán
- Assessment of digital services for complex patients in primary care, an EIP-AHA Reference site case study - Lea Milutinovic
- Characteristics of Patients Receiving Long-Term Home Nursing Care and the Role of the Nurse - Ludmila Marcinowicz
- Research on multimorbidity using general practitioners‘ electronic patient records - Katharina Schmalstieg

14:00 - 15:30 **Poster Session 2 - Diabetes**
Location: Main Auditorium Foyer

Co-ordinator: Tiny van Merode
Chair: Radost Assenova
Location: Main Auditorium Foyer
Presentations:

- Evolocumab Versus Ezetimibe in Addition To Statins For Secondary Prevention Of Major Adverse Cardiovascular Events In Patients with Type 2 Diabetes and Hypercholesterolemia - Joseph Azuri
- How does quitting smoking affect weight, metabolic measures and the risk of developing Diabetes Mellitus - Corinne Herskovizh
- Relationship between omentin and chemerin levels and metabolic indices of obesity within one year in non-morbid overweight and obese adults - Vija Silina
- Screening of Diabetic Retinopathy in Southwest Finland - Merja Laine
- Vulnerable and diabetes patients’ perspectives on the advantages of patient education in primary care centre: a qualitative study in France - Emmanuel Allory

14:00 - 15:30 **Poster Session 3 - Mental Health**

Location: Main Auditorium Foyer

Co-ordinator: Tiny van Merode
Chair: Sabine Bayen
Location: Main Auditorium Foyer
Presentations:

- Adolescent Depression Associated With Parental Depression: Screening, Prevalence and Secondary Prevention From the AdoDesP Survey (Adolescent Depressed Parents on Primary Care): Research - Florian Stephan
- Atopic Eczema in Adulthood and Risk of Depression and Anxiety: A Population-Based Cohort Study - Yochai Schonmann
- Can we apply light therapy in chronic insomnia? a systematic literature review and meta-analysis - Juliette Chambe
- Multimorbidity among Finnish university students, especially among students suffering from mental illness according to the Finnish Student Health Survey in year 2016 - Tiina Vuorio
- Well-being and depression in International Medical Students - Cindy Heaster

14:00 - 15:30 **Poster Session 4 - Patient Care**
Location: Main Auditorium Foyer

Co-ordinator: Tiny van Merode
Chair: Ilze Skuja
Location: Main Auditorium Foyer
Presentations:

- Assesment of the needs and expectations of inhabitants of İstanbul - Pendik county from primary care services. - Ayşe Çaylan
- Attitudes and knowledge of family physicians regarding patients with multimorbidity in the Republic of Croatia – Pilot Study - Marko Rada
- Educating Nursing Home Staff to Improve Residents' End-of-life Care and to Reduce Burdensom Hospitalisations - Baseline Findings and Feasibility of a Randomised, Controlled Trial - Pauli Lamppu
- Preliminary data of the CORap study (Gut Feelings Prognostic Value in Primary Care) - Magdalena Esteva
- Self Reported Adherence in Primary Care: A Systematic Review - Delphine Rubé

14:00 - 15:30 **Poster Session 5 - Miscellaneous**
Location: Main Auditorium Foyer

Co-ordinator: Tiny van Merode
Chair: Durdica Lazic
Location: Main Auditorium Foyer
Presentations:

- Differences in SCORE screening parameters between males and females in Latvia - Līva Mača
- Effect of time elapsed from the onset of heart failure decompensation symptoms to primary care consultation - Miguel Angel Muñoz
- Multimorbid patient quality of life assessment and the factors affecting it. - Andris Pūce
- Quantitative and thematic analysis of gut feelings' text notes - Bernardino Oliva-Fanlo
- Violence Towards Young General Practitioners in Croatia Remain in Silence - a pilot study - Iva Jurčević

14:00 - 15:30 **Poster Session 6 - Pharmaceuticals and Other**
Location: Main Auditorium Foyer

Co-ordinator: Tiny van Merode
Chair: Mehmet Ungan
Location: Main Auditorium Foyer

Presentations:

- Assesment of 0-24 Months Old Childrens' Mothers' Knowledge Level on Routine Vaccination Program - Tevfik Tanju Yilmazer
- Focusing school doctors' health checks – early prevention of multimorbidity? - Kirsi Nikander
- Inhaled corticosteroid use among adult Finnish asthmatics - Päivi Saukkosalmi
- Reasons of bad adherence to scientific researches among young general practitioners and its improvement - Victoria Tkachenko
- Usage habits of peroral, over the counter analgesics in the adult population of Latvia - Jānis Blumfelds

15:30 - 16:00 **Coffee Break**

Location: Main Auditorium Foyer

16:00 - 17:00 **Parallel Session K - Freestanding papers (Miscellaneous)**
Location: A1

Chair: Esperanza Diaz
Location: A1
Presentations:

- Glycemic control, use of steroids and infection among patients with type 2 diabetes - Galia Zacai
- GPs' gut feelings sense of alarm is valuable in dyspnoea and chest pain - Marie Barais
- How does child abuse suspicion arise in general practice - Erik Stolper

16:00 - 17:00 **Parallel Session L - Research Course Research Fellow Presentations**
Location: A4

Chairs: Ferdinando Petrazzuoli, Michael Harris
Location: A4
Presentations:

- What influences medical students' choice of family medicine as a career? A research protocol from the 2018/2019 EGPRN Fellows. - Alice Serafini

17:00 - 17:10 **Summary of the day**
Location: A1

Speaker: Local Keynote Speaker, Prof. Elise Kosunen
Chair: Davorina Petek
Location: A1

17:10 - 17:30 **Chairperson's Report by EGPRN Chair**
Location: A1

Chair: Davorina Petek
Location: A1

17:30 - 17:45 **Presentation of the Poster-Prize for the best poster presented**
Location: A1

by Tiny van Merode, Chair PR & Communication Committee.
Location: A1

17:45 - 17:55 **Introduction to the next EGPRN meeting**
Location: A1

	Chair: Davorina Petek Location: A1
17:55 - 18:00	**Closing** Location: A1 Closing of Scientific Conference Location: A1
20:00 - 23:30	**Social Night with Dinner, Dance and Music!** Pre-booking online essential. Location: Juvenes Restaurant Attila https://goo.gl/maps/VX8hdrB7kK82

Sunday, 12th May 2019

09:30 - 11:30 **EGPRN Executive Board Meeting**

Only for Members of the Executive Board
Location: Sokos Hotel Torni

International Keynote Lecture

The challenge of multimorbidity for health services and researchers

Bruce Guthrie

Professor of General Practice at the University of Edinburgh
NHS Research Scotland Primary Care Research Champion

Multimorbidity challenges existing healthcare organisation and research which remains disease and single-condition focused. Basic science approaches to multimorbidity have the potential to identify important shared mechanisms by which diseases we currently think of as distinct might arise, but there is a pressing need for more applied and health services research to better understand and manage multimorbidity now. There are a number of recent clinical guidelines which make recommendations for managing multimorbidity or related issues for patients such as polypharmacy and frailty. However, the evidence base underpinning these recommendations is often weak, and these guidelines therefore also help define a research agenda. A key problem for researchers and health services is that multimorbidity is very heterogeneous, in that ‘intermittent low back pain plus mild eczema’ presents very different challenges to researchers and health services compared to ‘active psychosis plus severe heart failure’. Identifying important but tractable research questions is therefore not always straightforward. This presentation will examine identify important gaps in the evidence, and illustrate how they might be filled. The focus will be on two areas where there is consensus that better evidence is needed to inform care design and delivery: (1) Organisational interventions to implement more coordinated and holistic care; and (2) Interventions to improve medicines management in people with multimorbidity and polypharmacy. These illustrate both the potential for imaginative research, but also the scale of our shared challenge to improve outcomes in the most vulnerable multimorbid people.

Local Keynote Lecture

Multiprofessional primary health care and challenges of multimorbidity

Elise Kosunen

Professor of General Practice, Faculty of Medicine and Health Technology, Tampere University
Chief physician, Center of Primary Health Care, Pirkanmaa Hospital District

Current primary care in Finland is based on the Primary Health Care Act (1972) which addressed numerous new tasks to all municipalities. All of them had to find a new health centre organization which provides a wide range of health services including prevention and public health promotion. Multiple tasks require multi professional staff, and thus, the Finnish health centre personnel consisted not only of GPs, but of public health nurses, midwives, physiotherapists, psychologists, social workers, dentists etc. During the next decade, there has been some changes, but the idea of multiprofessional structure has remained. According to the QUALICOPC study (2012) Finnish GPs are still co-located with several other health care professionals compared to most of European countries; even compared to other Nordic countries which otherwise have many similarities in their primary health care.

During the last ten or fifteen years, health care providers and researchers have recognized a new challenge: our current systems do not meet the needs of patients with multiple health and social problems – and the proportion of these patients is increasing all the time as the population is getting older. One could suppose that preconditions of handling multimorbidity would be excellent in multiprofessional surroundings like ours, but actually, a person with multiple problems is a challenge there, too. Multiprofessional organization in primary care does not guarantee good care of patients with multiple disease, if we do not acknowledge the challenge and revise our systems. We have to develop new ways of collaboration and new models of integrated care. The difficult part is secondary care, which is organized with logics of one medical speciality per visit. In Tampere University Hospital district, we have created a care pathway model which defines the roles primary health care and secondary care. Nationwide, we have recently started to prepare national guidelines for the care of patients with multimorbidity. What we absolutely need more in the future is more research on new practices and models.

Pre-conference Workshop

Writing for Publication – Meet the Editors for Tips and Tricks!

Thursday, May 9th, 14:00 - 16:30

- Jelle Stoffers, Dept. of Family Medicine, Maastricht University, Maastricht, The Netherlands; jelle.stoffers@maastrichtuniversity.nl
  Jelle Stoffers is the Editor-in-Chief of the European Journal of General Practice (EJGP), the official scientific journal of Wonca Europe.
- Helena Liira
  Helena Liira is the Editor in Chief of the Scandinavian Journal of Primary Health Care; helena.liira@helsinki.fi

If you are interested in "writing for publication", you are invited to join their workshop.

Background: Peer reviewed medical journals are important media for the publication of articles relevant to Primary Health Care and General Practice/Family Medicine, such as research papers, reviews of literature, clinical lessons, and opinion papers. They are the means to disseminate original research results and educational information, discuss available evidence and share experiences. However, many colleagues find writing and submitting a scientific paper a challenge.

Aim & Audience: In this workshop, we aim at providing participants with information about preparing manuscripts for medical journals. **Our intended audience are authors interested in research or medical writing, who have little or no previous experience in publishing.**

Methods: The workshop has the format of a highly interactive session. It focuses on the preparation and submission of research papers. Topics discussed are the basic structure, language and presentation of research papers, as well as common errors and how to prevent them. We also discuss how you could write an appropriate Cover Letter. In addition, the peer review process is discussed.

Outcome: Participants will have expanded their knowledge and will have received practical advice (“tips & tricks”) on how to prepare a manuscript for publication in a peer-reviewed medical journal.

Pre-conference Workshop

Multimorbidity research agenda as an example for a formalised consensus procedure

Thursday, May 9th, 14:00 - 16:30

- Jean Yves Le Reste, University of Western Brittany, Brest, France
- Patrice Nabbe, University of Western Brittany, Brest, France

Background: Multimorbidity is an intuitively appealing, yet challenging, concept for Family Medicine (FM). An EGPRN working group has published a comprehensive definition of the concept based on a systematic review of the literature which is closely linked to patient complexity and to the biopsychosocial model. This concept was identified by European Family Physicians (FPs) throughout Europe using 13 qualitative surveys. To further our understanding of the issues around multimorbidity, we need to achieve innovative research to clarify this concept. The research question for this survey is: what research agenda could be generated for Family Medicine from the EGPRN concept of Multimorbidity?

Method: Nominal group design with a purposive panel of experts in the field of multimorbidity. The nominal group will work through four phases: ideas generation phase, ideas recording phase, evaluation and analysis phase and a prioritization phase.

Results (expected): priorization of type of study and subject of survey within the EGPRN definition of multimorbidity

Pre-conference Workshop

How to formulate a good research question?

Thursday, May 9th, 14:00 - 16:30

- Pekka Mäntyselkä
- Elise Kosunen
- Markku Sumanen
- Aleksi Varinen

Objectives: Being able to use a PICOt format when planning research. Knowing how to select a suitable study design for a well formulated research question.

Background: General practice researchers need to think about their study questions clearly and in sufficient detail before starting a new research project. When the question is well formulated, it is easier to see what type of study design would be useful, what resources would be necessary and is this study feasible.

Content: Research ideas or questions from the participants will be used in formulating research questions. The research questions will be formulated by clarifying PICOt: the Patients or Population, the Intervention to be studied, the Comparator/Control (the old intervention or no intervention / placebo), the Outcome (or several outcomes) and the Time for follow-up.

Method: Participants' research questions/ideas will be used as material for formulation of a detailed PICOt question in small groups. Flip charts are used for working on the question. Finally the PiCOts are presented to the whole group and the most attracting PICOt will be chosen by all participants. To be considered in advance: To think about a topic for a study, a question about work or patients in general practice, or a problem you want to solve by research. Participants are requested to send their study idea / question/ problem in advance by email to aleksi.varinen@tuni.fi. 2–5 lines about the idea are enough. Pre-registration required to this workshop. Maximum number of participants 30.

Pre-conference Workshop

Multimorbidity – The Copenhagen Approach

Thursday, May 9th, 14:00 - 16:30

- Volkert Siersma, University of Copenhagen

If patients have more than a single chronic diagnosis, they are called multi-morbid. Such patients are, as the nature of the multi-morbidity definition implies, bothered by more and more varied symptoms and complications and are frequent users of the health care system. Also, as treatment quality improves, people stay out of hospitals, live longer and have more time to gather diagnoses without seriously affecting their level of functionality; their diseases have to be managed in primary care. Primary care is anyway the obvious place for the management of the multi-morbid because of its holistic view of health management; the lack of focus on a single diagnosis or organ. Hence, studies that center on multi-morbidity are naturally based in general medicine research groups.

While we can agree that multi-morbidity is a problem – which is getting bigger, and more based in primary care – it is harder to point out what actually the problem is with multi-morbidity and how we can use this concept in practice. There is a trap while performing studies in multi-morbidity. If research questions and analyses are not well thought through, such studies will give obvious and rather useless results: people with multi-morbidity have higher mortality and healthcare use than people with less disease; people with multi-morbidity display a greater variety of problems; etc. If an alarming increase in the incidence of multi-morbidity is observed this could be taken as happy news: these people live longer and have more time to gather the diagnoses necessary. Hence, a more useful focus of studies with multi-morbidity is how such information can be used in the management of the health of these people: de-clutter treatment programmes, streamline logistics, making sure that the treatments for the various diseases do not cause more and other problems, and, eventually, see whether multi-morbidity can be used as a resource.

In the last ten years in the Research Unit for General Practice in Copenhagen we have had a focus on multi-morbidity. While the research we have conducted ranges from complete surveys of the whole of Denmark using the national administrative databases, to the synthesis of the life story of a single patient with multiple diagnoses, we have always tried to put the research in service of clinical practice. In this workshop we will give an overview of the multi-morbidity research that we have been doing, how this research gives us information that can be used in the treatment of our patients, and how this research could have been useless if we would have been too lazy to think of the right research questions. Thereafter the workshop participants will try their hands at formulating their own research projects building on the ideas from the presented projects, and hopefully venture beyond these examples! The facilitators have quite some expertise in various research methods and will help with keeping the projects feasible and will try to keep you from the pitfalls of getting obvious and useless results. At the end of the workshop, we will discuss the projects and investigate whether some of these projects could be turned into reality!

Theme Paper / Almost finished study

Barriers and Enablers to Deprescribing in Older Patients With Multimorbidity and Polypharmacy

Zsofia Rozsnyai, Katharina Tabea Jungo, Emily Reeve, Arnaud Chiolero, Rosalinde Ke Poortvliet, Nicolas Rodondi, Jacobijn Gussekloo, Sven Streit

Institute of Primary Health Care (BIHAM), 3012 Bern, Switzerland. E-mail: sven.streit@biham.unibe.ch

Keywords: deprescribing, polypharmacy, patient perspective

Background:
Multimorbidity and polypharmacy has become the norm for general practitioners (GPs). Ideally, GPs search for inappropriate medication and, if necessary, deprescribe. However, it remains challenging to deprescribe given time constrains and little backup from guidelines. Further, barriers and enablers to deprescribing among patients have to be accounted for.

Research questions:
To identify barriers and enablers to deprescribing in older patients with polypharmacy.

Method:
We conducted a survey among patients >70 years, with multimorbidity (>2 chronic conditions) and polypharmacy (>4 regular medicines). We invited Swiss GPs, to recruit eligible patients each who completed a paper-based survey on demography, medications and chronic conditions. We applied the revised patients' attitudes towards deprescribing (rPATD) questionnaire, and added twelve additional questions and two open questions to assess barriers and enablers towards deprescribing.

Results:
We analyzed the first 221 responses received so far and full results will be presented at the conference. Participants were 79.3 years in mean (SD 5.8), 48% female, 31% lived alone, and 85% prepared their medication themselves, all others required help. 76% of participants took 5-9 regular medicines and 24% took ≥10 up to 22 medicines. 76% of participants were willing to deprescribe one or more of their medicines and 78% did not have any negative experience with deprescribing. Age and gender were not associated with their willingness to deprescribe. Important barriers to deprescribing were satisfaction with drugs (96%), long-term drugs (56%) and noticing positive effects when taking them (92%). When it comes to deprescribing, 89% of participants wanted as much information as possible on their medicines (96%). Having a good relationship with their GP was further key to them (85%).

Conclusions:
Most older adults are willing to deprescribe. They would like to be informed about their medicines and want to discuss deprescribing to achieve shared decision making with the GP they trust.

Points for discussion:
Experience from other countries/settings?

Common thought on how to put deprescribing into practice

Presentation on 10/05/2019 09:40 in "Plenary Session - Theme Papers: Multi-morbidity and Polypharmacy" by Sven Streit.

Theme Paper / Ongoing study with preliminary results

Multimorbidity and Polypharmacy in Canada: Examining Prevalence and Patterns in Primary Health Care Using a National Electronic Medical Record Database

Kathryn Nicholson, Martin Fortin, Lauren Griffith, Amanda Terry, Tyler Williamson, Dee Mangin, Saverio Stranges

Western University, N4S 5Y5 Woodstock, Canada. E-mail: kathryn.nicholson@schulich.uwo.ca

Keywords: multimorbidity, polypharmacy, electronic medical records, primary health care, Canada

Background:
The accumulation of multiple chronic diseases (multimorbidity) and multiple prescribed medications (polypharmacy) over time may influence the extent to which an individual maintains health and well-being in later life.

Research questions:
This research aims to describe the patterns (sequence and timing) of multimorbidity and polypharmacy that accumulate over time among primary health care patients in Canada.

Method:
Data are derived from the Canadian Primary Care Sentinel Surveillance Network (CPCSSN) electronic medical record (EMR) database that holds ≥ 1 million longitudinal, de-identified records. Multimorbidity will be identified with 20 categories, cut-off points of ≥2 and ≥3 chronic conditions and the International Classification of Disease (ICD) classification system. Polypharmacy will be identified using the cut-off points of ≥5 and ≥10 medication classes and the Anatomical Therapeutic Chemical (ATC) classification system. Analyses will be conducted using Java and Stata 14.2 software.

Results:
The prevalence of chronic diseases and prescribed medications will be presented, as well as the patterns that are observed among adults and older adults in Canada. The most frequent patterns (combinations and permutations) of multimorbidity and polypharmacy will be presented, stratified by sex and age category. The relationships with other factors, such as the presence of frailty, disability or increased health service use, will be examined. As well, the methodological challenges to identifying the presence and sequence of multimorbidity and polypharmacy in national, longitudinal data will be discussed.

Conclusions:
This research will explore the profiles of multimorbidity and polypharmacy in mid- and late-life using a national, longitudinal database. These findings can be used strategically to inform health care delivery and to contribute to the understanding of multimorbidity and polypharmacy in the international literature. In fact, reducing the burden of prescribed medications and the harms of polypharmacy are key tasks within the context of multimorbidity.

Points for discussion:
This abstract and presentation will strongly align with the EGPRN Meeting's theme and focus on multimorbidity this year.

As a team from Canada, we would be very interested in meeting with, learning from and collaborating with colleagues in Europe for future multimorbidity research.

We would also be very interested in gaining feedback on our preliminary results examining multimorbidity and polypharmacy in Canada.

Presentation on 10/05/2019 09:40 in "Plenary Session - Theme Papers: Multi-morbidity and Polypharmacy" by Kathryn Nicholson.

Theme Paper / Finished study

Multimorbidity in primary care: Interdisciplinary person centred disease management

Sabine Bayen, Marc Bayen, Daniel Dreuil, Nassir Messaadi

Faculté de médecine, General Practice, 59287 Lille Cedex, France. E-mail: kroehnchen@hotmail.fr

Keywords: multimorbidity, primary care, interdiciplinary, person centeredness, disease management, health democracy

Background:
Person centred, interdisciplinary disease management is important for multimorbidity in primary care. Health care providers of persons with chronic conditions, identified common points of rupture in different health courses, which hinders optimal person centred care. The study determines those common points of rupture and extrapolates recommendations to manage multimorbidity.

Research questions:
What is the nature of these points of rupture in health course with multiple chronic conditions? How to reduce frequent points of rupture to optimise health course and multimorbidity management on long term?

Method:
A qualitative participative study with 4 focus groups, gathering twice, all involved health care provider and patients, was conducted in 2016. Chronic heart failure was first chosen as an emblematic chronic condition to discuss experiences of health course. First, a state of play was drawn for points of rupture. Second, the same focus groups developed 9 concrete recommendations to reduce points of rupture in real life situation. The recommendations were extrapolated to diabetes, Parkinson's disease, cancer, asthma, chronic bronchitis, and obesity.

Results:
Forty actors of health course determined points of rupture in health course: lack of patient's information and empowerment, delayed diagnosis, lack of empathy, lack of communication between health care providers at home and at hospital, lack of interdisciplinary coordination, delayed expert advice, multimorbidity, frailty and dependence, leading to frequent avoidable hospitalisation. Following recommendations were proposed and will be implemented: early diagnosis, expert advice, empathic diagnosis announcement, succeeding patient's return home, yearly follow-up, reinforce home and primary care, secure drug management, information and health education for patients, and favor patient's empowerment to preserve his self-governance.

Conclusions:
Our results will concretely improve management of multimorbidity in primary care. We favour interdisciplinary teamwork, early diagnosis and orientation, reduce frequency and duration of hospitalisations, and favor patient's empowerment.

Points for discussion:
What will be the impact on health economy?

How to sustain this implementation?

How to articulate the different chronic conditions on long term?

Presentation on 10/05/2019 09:40 in "Plenary Session - Theme Papers: Multi-morbidity and Polypharmacy" by Sabine Bayen.

Theme Paper / Ongoing study with preliminary results

Complex Multimorbidity - Preavalence and Workload

David Rodrigues, Bruno Heleno

NOVA Medical School, 2560-051 A-dos-Cunhados, Portugal. E-mail: david.rodrigues@nms.unl.pt

Keywords: multimorbidity, complexity, epidemiology, general practice

Background:
Primary care in some countries are under a context of accountability, scrutiny, measurement, pay-for-performance and market based principles, promoting a disease centred rather than a person-centred care. Despite this context, patients frequently present multiple chronic conditions, with frequent and complex needs.

Research questions:
What is the prevalence of complex multimorbidity and its associated workload in a rural primary care unit?

Method:
We analysed all 7410 patients registered in one rural health practice in the western region of Portugal, using data from the electronic health records database. For each patient, we extracted all chronic diagnoses and defined patient with complex multimorbidity as those with at least one chronic condition from at least three different body systems. We also extracted the number of patient encounters during 2018, defined as any service provided by the health unit to a particular patient.

Results:
Complex multimorbidity had a prevalence of 24.1% (1587 registered patients), being higher in patients aged 50 years old or older (51.0%). There were 7.4% of these patients with 10 or more chronic diseases. Two patients have 19 and one patient has 20 chronic diseases. Patients with complex multimorbidity were responsible for 11,096 of the total of 17,569 contacts (63.2%). In 2018, patients with complex multimorbidity had on average 7.0 contacts, while patients without complex multimorbidity had on average 1.1 contacts.

Conclusions:
A significant proportion of patients in this rural, western Portugal, primary care unit have complex multimorbidity and they account for most of the workload in this unit. While differences in age and socio-demographic position still need to be factored in, it is clear this unit needs to adapt its activities and allocate more resources to this population. While this is a single unit study, most likely the entire healthcare system needs to refocus into complex patients with multiple chronic diseases instead of single disease approaches.

Points for discussion:
Is multimorbidity classic definition useful?

How can we best identifiy patients with more intense and complex needs?

How to change primary care organization in order to meet complex multimorbidity patients' needs?

Presentation on 10/05/2019 11:40 in "Parallel Session A - Theme Papers: Disease Management" by David Rodrigues.

Theme Paper / Ongoing study no results yet

Further development and validation of the Multimorbidity Treatment Burden Questionnaire (MTBQ)

Polly Duncan, Katherine Chaplin, Yvette Pyne, Muzrif Munas, Daisy Gaunt, Line Guenette, Chris Salisbury

University of Bristol, BS8 2PS Bristol, United Kingdom. E-mail: polly.duncan@bristol.ac.uk

Keywords: Multimorbidity, treatment burden, questionnaire, patient reported outcome measure

Background:
Treatment burden is the 'effort of looking after ones' health and the impact that this has on everyday life'. This includes taking complex medication regimens and co-ordinating health care appointments. In order to assess the impact interventions on treatment burden, it is essential to have a valid patient reported outcome measure.

The MTBQ was developed and validated as part of the 3D Study, a trial for patients with multimorbidity, and demonstrated good content validity, construct validity, internal consistency reliability and responsiveness. Limitations included: (i) high floor effects; (ii) test-retest reliability not assessed; (iii) construct validity assessed using proxy measures; (iv) generalizability to non-trial populations. There are four other existing general measures of treatment burden, all of which have important limitations.

Research questions:
The purpose of this study was to:
(i) Examine whether reversing the scale of the MTBQ reduced the floor effects
(ii) Assess test-retest reliability
(iii) Compare responses, construct validity and ease of completion with a comparator questionnaire
(iv) Assess construct validity with non-proxy measures
(v) Assess interpretability of the MTBQ in a non-trial population

Method:
UK patients aged 18 years or over with multimorbidity (three or more long-term conditions) from four GP practices with varying levels of deprivation were posted a questionnaire booklet with the MTBQ (original version or with the scale reversed); the Treatment Burden Questionnaire comparator; and questions about ease of completion. A follow-up questionnaire was posted one to four weeks later. Data collected from participant's computer records included: demographics; list of long-term conditions; GP consultations and number of health professionals seen in the preceding 12 months; and medicines prescribed.

Results:
Data collection will complete by March 2019 and the full results will be available by May 2019.

Conclusions:
There has been considerable international interest in the MTBQ and this is an important study to further develop and validate it's use.

Points for discussion:
How might the Multimorbidity Treatment Burden Questionnaire be used in clinical practice?

Why is it important to use non-proxy measures to examine construct validity of the Multimorbidity Treatment Burden Questionnaire?

What are the implications of high floor effects?

Presentation on 10/05/2019 11:40 in "Parallel Session A - Theme Papers: Disease Management" by Polly Duncan.

Theme Paper / Ongoing study with preliminary results

INterprofessional follow-up of PATIents with Cancer (SINPATIC study): an exploratory study of patients

William Mirat, Laura Moscova, Matthieu Lustman, Sebastien Dawidowicz, Genevieve Picot, Audrey Lebel, Jacques Cittée, Emilie Ferrat

UPEC, 94000 Creteil, France. E-mail: william.mirat@gmail.com

Keywords: tumors -patients -general practicionners -case management -cooperative behavior

Background:
Oncology management is evolving with focus on a greater involvement of primary care professionals, including the general practitioner (GP). Interprofessional collaboration becomes a priority to optimize the cancer care of patients. To date, few studies and none French one investigated care pathway and collaboration from the patient perspective. These notions deserve to be better explored and understood.

Research questions:
What are, among patients with solid cancer, their perceptions of their care pathway, the roles of the different professionals involved in their care and interprofessional collaboration?

Method:
We conducted a qualitative study using semi-directed interviews among 10 adult patients with prostate, breast, chest or colorectal cancer between January to April 2018 in Paris and two suburbs. The sampling was purposive based on the following criteria: age, gender, living areas, cancer site, time after multidisciplinary meeting, final therapeutic decision, socio-economic status and setting (ambulatory or hospital). The verbatim was subjected to a mixed analysis: thematic of content using D'Amour model and inductive. This work is part of the SINPATIC study exploring also the perception of the oncologists and other organ specialists, the nurses of these patients.

Results:
Confrontation with cancer is complex step with a process of awareness, acceptance of care and of decision-making, a lack of clarification of professional roles but with actions attributed to the different actors; a cancer announcement "little by little" involving several actors; organizational and administrative difficulties; and an informal collaboration in inertia tending towards construction with chiefly a parallel follow-up organization, and sometimes shared between hospital and primary care.

Conclusions:
These results and the triangulation of the other actors will allow us to better understand the pathway of care and interprofessional collaboration for cancer patients and develop an intervention to improve the quality of life, of care and management of these patients.

Points for discussion:
How to improve collaboration

How to include better patients

Presentation on 10/05/2019 11:40 in "Parallel Session A - Theme Papers: Disease Management" by William Mirat.

Theme Paper / Published

Anticholinergic burden and most common anticholinergic-acting medications in older general practice patients

Eva Cedilnik Gorup, Janez Rifel, Marija Petek Šter

Medical Faculty Ljubljana, Department of Family Medicine, 1000 Ljubljana, Slovenia. E-mail: eva.gorup@gmail.com

Keywords: anticholinergic burden, aged, inappropriate prescribing

Background:
Anticholinergic burden from prescription of anticholinergic drugs in older adults has been correlated with cognitive decline, delirium, dizziness and confusion, falls and hospitalizations. Nevertheless, anticholinergic-acting medications remain commonly prescribed in up to a third of older adults in primary care population. We have no data on prescribing anticholinergic drugs in Slovenian older adults population on primary care level.

Research questions:
What is the anticholinergic burden in older adults in Slovenian ambulatory setting and which medications are most commonly involved that could be avoided by the physicians?

Method:
A cross-sectional study was conducted in 30 general practices in Slovenia. Data on prescribed medications was collected for randomly chosen adults over 65 years of age visiting general practice, who were taking at least one regularly prescribed medication. Anticholinergic burden was calculated using Duran's scale and Drug Burden Index.

Results:
Altogether, 622 patients were included, 356 (57.2%) female, average age 77.2 (±6.2), with on average 5.6 medications. At least one anticholinergic medication was present in 78 (12.5 %) patients. More than half (N=41, 52.6%) of anticholinergic prescriptions were psychotropic medications. Most common individual medications were diazepam (N=10, 1.6%), quetiapine (N=9, 1.4%) and ranitidine (N=8, 1.3%).

Conclusions:
Though prevalence of anticholinergic medications was low compared to international research, the most commonly involved medications should be avoided according to guidelines on prescribing in elderly. The prevalence could potentially be overestimated due to exclusion of patients with no regular medication therapy. It would be probably clinically feasible to further decrease the anticholinergic burden of older adults in Slovenian primary care setting by avoiding or replacing these medications by safer alternatives.

Points for discussion:
How well do GPs know these medications?

What methodology (scale) could be used to calculate anticholinergic burden in population based on large scale data for the whole population from National Insurance Institute?

Could using retrospective data on prescribed drugs in multiple European countries enable us to find out whether people with greater amount of prescribed anticholinergic drugs are at risk for developing dementia?

Presentation on 10/05/2019 11:40 in "Parallel Session B - Freestanding Papers: Multi-morbidity" by Eva Cedilnik Gorup.

Freestanding Paper / Almost finished study

Identifying high-need patients with multimorbidity based on their primary care medical records

Marianne Heins, Mieke Rijken, José Valderas, François Schellevis, Joke Korevaar

Nivel, 3513CR Utrecht, Netherlands. E-mail: m.heins@nivel.nl

Keywords: multimorbidity; person centered care; electronic medical records; health care use

Background:
With growing populations of patients with multimorbidity, general practitioners need insight in which patients in their practice are most in need for person-centred integrated care (“high-need” patients). Using data from electronic primary care medical records to automatically creat a list of possible “high need” patients could be a quick and easy first step to assist GPs in identifying these patients.

Research questions:
Can “high need” patients with multimorbidity be identified automatically from their primary care medical records?

Method:
Pseudonymized medical records of patients with multimorbidity (>= 2 chronic diseases) were analysed. Data were derived from Nivel Primary Care Database, a large registry containing data routinely recorded in electronic health records. This includes data on health care use, health problems and treatment. Logistic regression analysis was conducted to predict outcomes (frequent contact with the general practice, ER visits and unplanned hospital admissions). Predictors were age, sex, health care use in the previous year, morbidity and medication use.

Results:
245.065 patients with multimorbidity were identified, of which 48% above the age of 65 and 57% female. 42% had more than 5 GP contacts in the previous year and 62% used 5 or more different medications. Frequent contact with the general practice could be reliably predicted using only the number of contacts in the previous year (AUC 0.82). Adding all other predictors (including specific chronic conditions) only improved the predictive value of the model marginally (AUC 0.84). Identifying patients with a high risk for ER visits and unplanned hospital admissions proved more difficult (AUC 0.67 and 0.70 respectively).

Conclusions:
“High need” patients with multimorbidity can be automatically selected from primary care medical records using only the number of contacts with the general practice in the previous year. Composing a list of these patients can help GPs to identify those eligible for person-centered integrated care.

Points for discussion:
Is frequent contact with the general practice a useful predictor?

Is it surprising that specific chronic conditions are poor predictors of 'high needs'?

Is it feasible for a GP to regularly select patients from a list and invite them to discuss their care?

Presentation on 10/05/2019 11:40 in "Parallel Session B - Freestanding Papers: Multi-morbidity" by Marianne Heins.

Freestanding Paper / Almost finished study

Multi-morbidity or dual pattern of diseases among Negev Bedouins? Approach to multi-morbidity in communities under transition

Mohammed Morad

Ben Gurion University f the Negev, 8468304 Beer Sheva, Israel. E-mail: morad62@gmail.com

Keywords: Bedouin, Negev, Healthcare, Multi-morbidity, Culture

Background:
The Bedouin community of the Negev is for 3 decades under transition with huge impact on the patterns of diseases and the transformation of the health care that is provided. Statistics on mortality ,morbidity and disability figures show the burden of this demographic phenomena but we are in need for culturally compatible approach to multi-morbidity and reduce impact on quality of life.

Research questions:
The goal of this study is to compare the health status of the settled vs unsettled parts of the community by state of multi-mobrbidity, and the health care provided to these two subgroups of the community.

Method:
We use national statistics and HMO reports to search for multi-morbidity and mortality patterns, care offered and socio-demographic data from planned and unplanned Bedouin settlements of the Negev.

Results:
The spectrum of transition includes three stages: old planned twins, new towns and unplanned settlements very rare real Bedouin Nomadism. The majority (more than 75%) of Bedouins are offered medical care at modern clinics of Clalit Health Services generally but more than 85% of Bedouins in new and unplanned settlements are cared for by Clalit staff.
Bedouins living in small new towns are offered medical care at smaller clinics in the community while most of Bedouins outside towns (about 80000) receive care at modern clinics in Jewish and Old Bedouin towns, while relying on own transportation to reach medical care.
Across the transition span, Bedouins in older towns suffer more from chronic diseases like diabetes, smoking, hyperlipdemia, heart disease and obesity simultaneously and in high percentages of disability and with reduced life expectancy.
Dual pattern of diseases across transition is apparent and corresponds with multi-morbidity.

Conclusions:
Care providers should consider the multi-morbidity patterns, the socio-demographic determinants of health, health promotion, health education and offer differential approach across the transition span.

Points for discussion:
Transition a determinant and significant player in multi-morbidity patterns

Trans-cultural approach to multi-morbidity

Reducing mortality and improving quality of life under transition

Presentation on 10/05/2019 11:40 in "Parallel Session B - Freestanding Papers: Multi-morbidity" by Mohammed Morad.

Theme Paper / Ongoing study no results yet

Bringing together older multimorbid patients with polypharmacy, general practitioners, and eHealth: protocol of a cluster randomized controlled trial in Swiss primary care

Katharina Tabea Jungo, Zsofia Rozsnyai, Carmen Floriani, Sven Streit

Institute of Primary Health Care (BIHAM), University of Bern, 3012 Bern, Switzerland. E-mail: katharina.jungo@biham.unibe.ch

Keywords: eHealth, multimorbidity, polypharmacy, randomized controlled trial

Background:
Polypharmacy and multimorbidity are on the rise. Consequently, general practitioners (GPs) treat an increasing number of multimorbid patients with polypharmacy. To limit negative health outcomes, GPs should search for inappropriate medication intake in such patients. However, systematic medication reviews are time-consuming. Recent eHealth tools, such as the 'Systematic Tool to Reduce Inappropriate Prescribing' (STRIP) assistant, provide an opportunity for GPs to get support when conducting such medication reviews.

Research questions:
Can the STRIP assistant as an electronic decision support help GPs to optimize medication appropriateness in older, multimorbid patients with polypharmacy?

Method:
This cluster randomized controlled trial is conducted in 40 Swiss GP practices, each recruiting 8-10 patients aged ≥65 years, with ≥3 chronic conditions and ≥5 chronic medications (320 patients in total). We compare the effectiveness of using the STRIP assistant for optimizing medication appropriateness to usual care. The STRIP assistant is based on the STOPP/START criteria (version 2) and, for this trial, it is implemented in the Swiss eHealth setting where some GPs already share routine medical data from their electronic medical records in a research database (FIRE). Patients are followed-up for 12 months and the change in medication appropriateness is the primary outcome. Secondary outcomes are the numbers of falls and fractures, quality of life, health economic parameters, patients' willingness to deprescribe as well as implementation barriers and enablers for GPs when using the STRIP assistant.

Results:
Patient recruitment has started in December 2018. This presentation focuses on the study protocol and the challenges faced when testing this new software in Swiss primary care.

Conclusions:
Finding out whether the STRIP assistant is an effective tool and beneficial for older and multimorbid patients, who are usually excluded from trials, will have an impact on the coordination of chronic care for multimorbid patients in Swiss primary care in this new eHealth environment.

Points for discussion:
Share experiences on how to recruit GPs for a clinical trial and how to keep them motivated during the trial

Share experiences on the conduct of clinical trials in primary care

Presentation on 10/05/2019 14:10 in "Parallel Session C - Theme Papers: Multi-morbidity and the Patient Perspective" by Katharina Tabea Jungo.

Theme Paper / Almost finished study

Continuity of care is associated with patient satisfaction among multimorbid patients

Emmi Lautamatti, Kari Mattila, Risto Raivio

Tampere University, 33580 Tampere, Finland. E-mail: emmi.lautamatti@tuni.fi

Keywords: Patient satisfaction, multimorbidity, continuity of care

Background:
Patient satisfaction is a major element in assessing quality of care. Continuity of care has a positive correlation with patient satisfaction. In Finland continuity of care has deteriorated during the last centuries.

Research questions:
Are healthy patients more satisfied with their health care services than patients with multiple chronic diseases? What are the factors associated with higher patient satisfaction? What is the role of continuity of care?

Method:
The data is part of Health and Social Support –study (HeSSup) based on a random Finnish population sample. A follow-up questionnaire in 2012 was answered by 13 050 participants. We divided participants into two groups based on their morbidity. The question was “Has a doctor ever told you that you have or have had following diseases or conditions“. The group of healthy participants (n=5044) had no chronic diseases. Participants with two or more chronic diseases were included in the multimorbidity group (n=2819).

Results:
In adjusted multivariate analysis having a named GP in primary health care was strongest associated with higher patient satisfaction in both groups, healthy OR 1.78 (CI 1.57-2.01) and multimorbidity OR 1.87(CI 1.58-2.20). Patients with multimorbidity and lower BDI-scale points were associated with patient satisfaction (OR 1.72, CI 1.33-2.24). Satisfaction among healthy was associated with self-assessment of good health-status (OR 1.41, CI 1.15-1.71). Age 65 or higher (ORs healthy 1.32, CI 1.12-1.56, multimorbidity 1.39, CI 1.16-1.66) as well as patients’ proactivity contacting the named physician (ORs healthy 1.21, CI 1.07-1.37, multimorbidity 1.33, CI 1.10-1.60) were also associated with higher satisfaction.

Conclusions:
A named physician indicates continuity of care, which proved to have a positive correlation to patient satisfaction in both groups. Continuity of care should be considered planning treatment for patients with multimorbidity.

Points for discussion:
Importance of continuity of care among patients with multiple chronic diseases

Meaning of continuity of care for patients with different morbidities

Presentation on 10/05/2019 14:10 in "Parallel Session C - Theme Papers: Multi-morbidity and the Patient Perspective" by Emmi Lautamatti.

Theme Paper / Ongoing study no results yet

Measuring needs and expectations in life when living with multimorbidity - development and validation of the MMQoL scale

Kristine Bissenbakker, John Brodersen, Susanne Reventlow, Anne Møller, Alexandra Brandt Ryborg Jønsson

Faculty of Health and Medical Sciences, University of Copenhagen, 2300 Copenhagen S, Denmark. E-mail: kbis@sund.ku.dk

Keywords: Multimorbidity, questionnaire, quality of life, qualitative interviews, psychometric analysis

Background:
The number of people suffering from multiple chronic conditions, multimorbidity, is rising. For society, multimorbidity is known to increase healthcare expences through more frequent contacts with especially the primary sector. For the individual, increasing number of medical conditions are associated with lower quality of life (QoL). However, there is no statistically validated condition-specific patient-reported outcome measure (PROM) for assessment of QoL among patients with multimorbidity. A validated PROM is essential in order to measure effect in intervention studies for this patient group.

Research questions:
Aims:
1. To identify items covering QoL among patients with multimorbidity in a Danish context.
2. To develop and validate a PROM for assessment of QoL among patients with multimorbidity.
3. To utilize the final PROM in a large group of patients with multimorbidity in order to measure their QoL when living with different combinations and severity of multimorbidity

Method:
Phase 1: Qualitative individual and focus group interviews with patients with multimorbidity to identify relevant QoL items.
Phase 2: Validation of the items through a draft questionnaire sent by e-mail to around 200-400 patients with multimorbidity.
Phase 3: Psychometric validation of the draft questionnaire securing items with the highest possible measurement quality.
Phase 4: Assessment of QoL among approximately 2000 patients with multimorbidity from the Danish Lolland-Falster study

Results:
There are no results yet. Currently the interviewguide is under development.

Conclusions:
Despite the rising number of patients with multimorbidity and the known inverse relationship between a patients number of medical conditions and their quality of life, there is no statistically validated condition-specific (PROM for assessment of QoL among this group. Our aim is that this projects developed and validated PROM will be used in future intervention studies as a valid measure of QoL among patients with multimorbidity.

Points for discussion:
Problems with aiming at measuring quality of life

The chosen methods

Patients adaptaption to living with multimorbidity - therefore no affect on QoL

Presentation on 10/05/2019 14:10 in "Parallel Session C - Theme Papers: Multi-morbidity and the Patient Perspective" by Kristine Bissenbakker.

Theme Paper / Ongoing study with preliminary results

Quality of life among older adults living with multimorbidity: findings from the European SHARE database

Tatjana T Makovski, Beatriz Poblador Plou, Maria Ruiz-Castell, Saverio Stranges, Laetitia Huiart, Maurice P Zeegers, Marjan Van Den Akker

Luxembourg Institute of Health, 1445 Strassen, Luxembourg. E-mail: tatjana.makovski@lih.lu

Keywords: multimorbidity, quality of life, Europe

Background:
Multimorbidity prevalence increases with age while declining quality of life (QoL) is one of its major consequences.

Research questions:
The study aims to: 1. assess relation between increasing number of diseases and QoL 2. identify most frequently occurring patterns of diseases and how they relate to the QoL 3. observe how these associations differ across different European countries and regions.

Method:
Cross-sectional data analysis performed on wave 6 of the population-based Survey of Health, Ageing and Retirement in Europe (SHARE) (N=68,231). Data were collected in 2015 among population 50+ years old in 17 European countries and Israel. Multimorbidity is defined as the co-occurrence of 2 or more chronic conditions. Conditions were self-declared and identified through an open-end questionnaire containing 17 prelisted conditions plus conditions added by participants. Control, Autonomy, Self-Realization and Pleasure questionnaire (CASP-12v) was used to evaluate QoL.
Association between increasing number of diseases and QoL was assessed with linear regression. Factor analysis is being conducted to identify patterns of diseases to further evaluate their impact on QoL.
Multilevel analysis will take into account differences between countries and regions. Confounding was searched with directed acyclic graph (DAG) method and included age, sex, education, socio-economic status, behavioural habits, social support and health care parameters.

Results:
49.09% participants had 2 or more diseases. Maximum number of diseases per person was 13, mean number was 1.9. Unadjusted preliminary analysis showed that on average QoL decreases for -1.27 (95%CI: -1.29, -1.24) with each added new condition across Europe. The decline appears to be the steepest in Spain -1.61 (95%CI: -1.71, -1.51), and the least so in Israel -0.67 (95%CI: -0.82, -0.52).

Conclusions:
Ongoing analysis will identify diseases patterns which may have the highest impact on QoL, as well as elucidate the role of confounders in the relation to increasing number of diseases and disease patterns with QoL.

Presentation on 10/05/2019 14:10 in "Parallel Session C - Theme Papers: Multi-morbidity and the Patient Perspective" by Tatjana T Makovski.

Freestanding Paper / Finished study

Comparison of Patient Enablement Instrument to two single-item measures

Elina Tolvanen, Tuomas Koskela, Elise Kosunen

Tampere University, Tampere, Finland. E-mail: elina.tolvanen10@gmail.com

Background:
The Patient Enablement Instrument (PEI) is an established Patient-Reported Outcome Measure (PROM) that reflects the quality of a GP appointment. It is a six-item questionnaire, addressed to the patient immediately after a consultation.

Research questions:
The aim of this study was to evaluate, whether a the single-item measure (the Q1), based on the PEI or a single question extracted from the PEI itself (the Q2) could replace the PEI when measuring patient enablement among the Finnish health care centre patients.

Method:
The study design included 1) a pilot study with brief interviews with the respondents, 2) a questionnaire study before and after a single appointment with a GP, and 3) a telephone interview two weeks after the appointment. The correlations between the measures were examined. The sensitivity, specificity and both positive and negative predictive values for the Q1 and the Q2 were calculated, with different PEI score cut-off points.

Results:
Altogether 483 patients with completed PEI were included in the analyses. The correlations between the PEI and the Q1 or the Q1 were 0.48 and 0.84, respectively. Both the Q1 and the Q2 had high sensitivity and negative predictive value in relation to patients with lower enablement scores. The reliability coefficients were 0.24 for the Q1 and 0.76 for the Q2.

Conclusions:
The Q2 seems to be valid and reliable to measure patient enablement. The Q1 seems to be less correlated with the PEI, but it also has high negative predictive value in relation to low enablement scores.

Points for discussion:
We need instruments for assessing quality in the primary health care - patient enablement could be used along with e.g. patient satisfaction.

It is important to get data about the validity of the instruments.

We suggest that either of these measures (the Q1 or the Q2) could be used as a part of assessing quality of clinical performance in GP appointments.

Presentation on 10/05/2019 14:10 in "Parallel Session D - Freestanding Papers: Tools and Technology in General Practice" by Elina Tolvanen.

Freestanding Paper / Published

Feasibility of a checklist in treating hypertension in primary care – base line results from a cluster-randomised controlled trial (check and support)

Aapo Tahkola, Päivi Korhonen, Hannu Kautiainen, Teemu Niiranen, Pekka Mäntyselkä

Health Centre of Jyväskylä Cooperation Area, Jyväskylä, Finland; Institute of Public Health and Clinical Nutrition, University of Eastern Finland, Kuopio, Finland, 40900 Säynätsalo, Finland. E-mail: aapo.tahkola@jkl.fi

Keywords: Hypertension, Initiation, Medication, Target, Checklist, IMB model ,Primary care

Background:
Most patients with antihypertensive medication do not achieve their blood pressure (BP) target. Several barriers to successful hypertension treatment
are well identified, but we clearly need novel ways of addressing them.

Research questions:
Can using a checklist improve the quality of care in the initiation of new antihypertensive medication?

Method:
This non-blinded, cluster-randomised, controlled study was conducted in 8 primary care study centres in Central Finland, randomised to function as either intervention (n = 4) or control sites (n = 4). We included patients aged 30–75 years who were prescribed antihypertensive medication for the first time. Initiation of medication in the intervention group was carried out with a 9-item checklist, filled in together by the treating physician and the patient. Hypertension treatment in the control group was managed by the treating physician without a study-specific protocol.

Results:
In total, 119 patients were included in the study, of which 118 were included in the analysis (n = 59 in the control group, n = 59 in the intervention group). When initiating medication, an adequate BP target was set for 19% of the patients in the control group and for 68% in the intervention group. Shortly after the appointment, only 14% of the patients in the control group were able to remember the adequate BP target, compared with 32% in the intervention group. The use of the checklist was also related to more regular agreement on the next follow-up appointment (64% in the control group versus 95% in the intervention group).

Conclusions:
Even highly motivated new hypertensive patients in Finnish primary care have significant gaps in their treatment-related skills. The use of a checklist for initiation of antihypertensive medication was related to significant improvement in these skills. Based on our findings, the use of a checklist might be a practical tool for clinicians initiating new antihypertensive medications.

Points for discussion:
What are the odds for successful hypertension treatment, if the patient doesn't know treatment target or the time of the first follow-up appointment?

Could checklist be a part of our Electronic Medical Record -systems to help us cover all essential things when initiating medication?

Presentation on 10/05/2019 14:10 in "Parallel Session D - Freestanding Papers: Tools and Technology in General Practice" by Aapo Tahkola.

Freestanding Paper / Finished study

Implementation of video recording with immediate feedback in real-time consultation in general practice

Tan-Trung Phan, Younes Touati, Sophie Brossier, Monica Neagoe, Florence Adeline-Duflot, Badr Eddine Hicheur, Laurence Compagnon, Emilie Ferrat

Department of Education and Research in General Practice, Paris-Est Créteil University, Créteil, 94010 Créteil, France. E-mail: tantrungphan1@gmail.com

Keywords: Video recording with immediate feedback, Medical teaching, Communication

Background:
Immediate feedback is underused in the French medical education curriculum, specifically with video-recorded consultation.

Research questions:
The objective of this study was to evaluate the feasibility and the interest of this teaching method as a training and assessment tool of the learning process of general practitioner (GP) trainees.

Method:
During the period November 2017 - October 2018, trainees in ambulatory training courses collected quantitative data about recording consultations with a video camera: numbers of recordings, feedbacks, patients' participation refusals, and information about the learning process and competencies. The trainees' level of satisfaction was measured by means of a questionnaire at the end of their traineeship.

Results:
Sixty-seven trainees were recruited and 44 of them (65.7%) actively participated in the study; 607 video recordings and 243 feedbacks with trainers were performed. Few patients (18.5%) refused the video-recording. Most trainees considered video recording with immediate feedback to be a relevant learning tool. It made it possible for the participants to observe their difficulties and their achievements. "Relation, communication, patient-centered care" was the most built competency, non-verbal communication in particular. Time was the main limiting factor of this teaching method. Most trainees were in favour of its generalization in their university course.

Conclusions:
Video recording with immediate feedback in real-time consultation needs to be adapted to training areas and depends on time and logistics. This teaching method seems to be useful in the development of communication skills. It could lift the barriers of trainer's physical presence near GP trainees during immediate feedback in real-time consultation. It could help trainees to build their competencies while enhancing the place of immediate feedback in the general practice curriculum. It could also constitute an additional tool for the certification of GP trainees.

Points for discussion:
Number of video recordings and feedbacks at each traineeship

Worked-on vocational skills

Self-assessment of trainees

Presentation on 10/05/2019 14:10 in "Parallel Session D - Freestanding Papers: Tools and Technology in General Practice" by Tan-Trung Phan.

Freestanding Paper / Almost finished study

The effect of electronic reminders on the recording of diagnoses in primary care: a longitudinal follow-up study.

Tuomo Lehtovuori

Tampere University, 00320 Helsinki, Finland. E-mail: tuomo.lehtovuori@kolumbus.fi

Keywords: Community healt centers, Medical informatics, Primary care, Practice management, Quality Improvment

Background:
This study examined does of using electronic reminders increase the rate of diagnosis recordings in the patient chart system following visits to a general practitioner (GP). The impact of electronic reminders was studied in the primary care of a Finnish city.

Research questions:
How effective is the reminder of the information system to improve the diagnostic level of primary care?
Which is better and how: financial incentives or remiminders?

Method:
This was an observational retrospective study based on a before-and-after design was carried out by installing an electronic reminder in the computerized patient chart system to improve the recording of diagnoses during GPs' visits. The quality of the recorded diagnoses was observed before and after the intervention. The effect of this intervention on the recording of diagnoses was also studied.

Results:
Before intervention, the level of recording diagnoses was about 40% in the primary care units. After four years the recording rate had risen to 90% ($P<0.001$). The rate of change in the recording of diagnoses was highest during the first year of intervention. In the present study, most of the visits concerned mild respiratory infections, elevated blood pressure, low back pain and type II diabetes.

Conclusions:
An electronic reminder improved the recording of diagnoses during the visits to GPs. The present intervention produced data which reflects the distribution of diagnoses in real clinical life in primary care and thus provides valid data about public

Points for discussion:
Diagnoses are not necessarily properly recorded in primary care. Using electronic reminders provide valid data about diagnoses used in GP practices.

Electronic reminders are a cheap and effective method to improve recording diagnoses.

The effect of electronic reminders is relatively sustainable.

Presentation on 10/05/2019 14:10 in "Parallel Session D - Freestanding Papers: Tools and Technology in General Practice" by Tuomo Lehtovuori.

Theme Paper / Finished study

Comorbidity in family medicine – causal or casual? What is the effect of illness diversity? A longitudinal observational study in primary care.

Jean Karl Soler, Inge Okkes, Nicola Buono

MIPC, RBT2418 Rabat, Malta. E-mail: info@thefamilypractice.com.mt

Keywords: Comorbidity; ICPC; longitudinal; observational; family medicine; general practice; epidemiology

Background:
A study of casual versus causal comorbidity in family medicine in three practice populations from the Netherlands, Malta and Serbia.

Research questions:
1. What is the observed comorbidity of the 20 jointly most common episodes of care in three countries?
2. How much of the observed comorbidity is likely to be casual versus causal?

Method:
Participating family doctors (FDs) in the Netherlands, Malta and Serbia recorded details of all patient contacts in an episode of care structure using electronic medical records based on the International Classification of Primary Care, collecting data on all elements of the doctor-patient encounter, including the diagnostic labels (episode of care labels, EoCs). Comorbidity was measured using the odds ratio of both conditions being incident or rest-prevalent in the same patient in one-year dataframes, as against not.

Results:
Comorbidity in family practice in the three population databases expressed as odds ratios between the 41 joint most prevalent (joint top 20) episode titles in the three populations. Specific associations were explored in different age groups to observe the changes in odds ratios with increasing age as a surrogate for a temporal or biological gradient.

Conclusions:
After applying accepted criteria for testing the causality of associations, it is reasonable to conclude that most of the observed primary care comorbidity is casual. It would be incorrect to assume causal relationships between co-occurring diseases in family medicine, even if such a relationship might be plausible or consistent with current conceptualisations of the causation of disease. Most observed comorbidity in primary care is the result of increasing illness diversity.

Points for discussion:
1. Discussion of criteria for causal and casual associations

2. Discussion of the limitations of the study of comorbidity without correcting for spurious associations

3. Discussion on the revival of the RER-GP group and similar research using electronic medical records

Presentation on 10/05/2019 16:30 in "Parallel Session E - Thema Papers: Longitudinal Trends in Multi-morbidity" by Jean Karl Soler.

Theme Paper / Finished study

Longitudinal multimorbidity patterns in elderly population using Hidden Markov Models

Marina Guisado-Clavero, Sergio Fernández-Bertolín, Margarita Cabrera-Bean, Albert Roso-Llorach, Quintí Foguet-Boreu, José Valderas, Concepción Violán

IDIAP JORDI GOL, 08007 Barcelona, Spain. E-mail: marina.guisado@gmail.com

Keywords: Elder, Chronic diseases, Multimorbidity patterns, Cluster analysis, Hidden Markov Models, Primary Health Care

Background:
Chronic diseases usually have a long duration and slow progression and, as a result, they tend to aggregate in multimorbidity patterns (MP) during the life course and/or due to shared underlying pathophysiological pathways. Knowledge of how MPs progress along time is necessary to develop effective prevention management strategies.

Research questions:
What are the most likely MP over time? Which longitudinal shifts from one pattern to another occur during follow-up?

Method:
A prospective longitudinal study based on electronical health records was conducted during 2012-2016 in Catalonia, Spain. For people aged ≥65 years, we extracted data on demographics and diagnostic codes for chronic diseases (ICD-10). Machine-learning techniques were applied for the identification of disease clusters using fuzzy c-means analysis to obtain initial clusters. To estimate longitudinal MPs and their progression for each individual a Hidden Markov Model was fitted, estimating: 1) the transition probability matrix between clusters; 2) the initial cluster probability; 3) the most likely trajectory for each individual. In each MP was determined: prevalence of disease in each cluster, observed/expected ratios (O/E ratios) and disease exclusivity. Criteria used to designate
cluster: O/E ratio ≥2.

Results:
916,619 individuals were included. Ten MPs were identified. The cluster including the most prevalent diseases was designated non-specific (42.0% of individuals). The remaining nine clusters included the following anatomical systems: ophthalmologic and mental diseases (19.3%), osteo-metabolic (7.9%), cardio-circulatory (6.6%), and others. The majority of patients, minimum 59.2%, remained in the same cluster during the study period. The highest transitions to the mortality state were observed in the cardio-circulatory (37.1%) and nervous (31.8%) MPs.

Conclusions:
Ten significant longitudinal multimorbidity patterns were found. The application of sophisticated statistical techniques ideally suited the study of the multimorbidity patterns and allows to characterize them over time. This method is useful to establish probabilistic evolution of multimorbidity patterns.

Points for discussion:
1. The change of multimorbidity patterns made by individuals over time

2. Evolution of the multimorbidity patterns

3. Diseases that act as driver diseases of multimorbidity patterns

Theme Paper / Finished study

Trends in multimorbidity and polypharmacy in the Flemish-Belgian population between 2000 and 2015

Tine De Burghgraeve, Marjan Van Den Akker, Bert Vaes, Geert Goderis, Gijs Van Pottelbergh, Séverine Henrard

Academic Center for General Practice - Catholic University of Leuven, 3000 Leuven, Belgium. E-mail: tine.deburghgraeve@kuleuven.be

Keywords: trends; multimorbidity; polypharmacy; Belgium

Background:
Multimorbidity – the co-occurrence of two or more chronic diseases in a patient and polypharmacy – the prescription of five or more medications in one year are broadly recognized as important and interrelated phenomena. Time trends in the prevalence of multimorbidity and polypharmacy are scarce. The Flemish primary care-based Intego network offers an excellent opportunity to evaluate those trends.

Research questions:
The aim of this paper was to describe the time trends in the prevalence of multimorbidity and polypharmacy in Flanders (Belgium) between 2000 and 2015, while controlling for age and sex.

Method:
Data were available from Intego, a Flemish-Belgian general practice-based morbidity registration network. The practice population between 2000 and 2015 was used as the denominator, representing a mean of 159,946 people per year. Age and gender-standardised prevalence rates were used for the trends of multimorbidity and polypharmacy in the total population and for subgroups. Joinpoint regression analyses were used to analyse the time trends and breaks in trends, for the entire population as well as for specific age and sex groups.

Results:
Overall, in 2015, 22.7% of the population had multimorbidity, while the overall prevalence of polypharmacy was 20%. Throughout the study period the standardised prevalence rate of multimorbidity rose for both sexes and in all age groups. The largest relative increase in multimorbidity was observed in the younger age groups (up to the age of 50 years). The prevalence of polypharmacy showed a significant increase between 2000 and 2015 for all age groups except the youngest (0-25 years).

Conclusions:
For all adult age groups multimorbidity and polypharmacy are frequent, dynamic over time and increasing. This asks for both epidemiological and interventional studies to improve the management of the resulting complex care.

Presentation on 10/05/2019 16:30 in "Parallel Session E - Thema Papers: Longitudinal Trends in Multi-morbidity" by Tine De Burghgraeve.

Freestanding Paper / Almost finished study

Forms and frequency of sanctions in primary healthcare in Macedonia

Marija Zafirovska, Ljubin Šukriev, Katerina Kovačević, Marta Tundževa

Ss Cyril and Methodius University - Faculty of Medicine - Center of family medicine, 1000 Skopje, Macedonia. E-mail: m.zafirovska27@gmail.com

Keywords: sanctions, primary care, family medicine, financial control, general practitioners

Background:
Regulating the quality and effectiveness of the work of general practitioners is important for a good healthcare system. In the Republic of Macedonia this is regulated by the Health Insurance Fund through a system of penalties/sanctions.

Research questions:
The goal of this study is to evaluate the types and effectiveness of the sanctions used on primary care practitioners.

Method:
This is a quantitative research for which we used an anonymous survey with 18 questions. This survey was distributed to 443 randomly selected general practitioners from different parts of Macedonia and 438 of them responded. For the quantitative data we used the Pearson's chi-squared test, correlation and descriptive statistics. Part of the survey is qualitative consisting of comments and opinions of the general practitioners.

Results:
From the participants 336 were female and 102 were male. The doctors' gender was not associated with the sanctioning. The majority of general practitioners were in the age categories of 30-39 and 40-49. The participants' age had significant influence on sanctioning– older doctors were sanctioned more frequently. Out of 438 participants 33.3% were specialists of family medicine and 66.7% general practitioners. Specialists of family medicine were sanctioned significantly more frequently than the general practitioners. Doctors that worked in the hospital or 19 km from the nearest hospital were significantly more frequently sanctioned. The most common three reasons for sanctions were: financial consumption of prescriptions and referrals above the agreed amount, higher rate of sick leaves and/or justification of sick leaves and unrealized preventative goals or education. "Financial sanction by scale" was the most common type of sanction - 49.8% participants. Doctors who followed the guidelines, but were exposed to violence were sanctioned significantly more frequently.

Conclusions:
We can observe that age, specialty, the distance of the workplace from the nearest hospital and violence have influence on sanctioning.

Points for discussion:
Who regulates and assesses the primary health practitioners' work

Incentive-based vs. sanction-based healthcare systems

Presentation on 10/05/2019 16:30 in "Parallel Session F - Freestanding Papers: Governance and Training in General Practice" by Marija Zafirovska.

Freestanding Paper / Almost finished study

Frequency and form of controls over primary health care physicians in Slovenia

Aleksandar Zafirovski, Danica Rotar Pavlič

Department of Family Medicine, Medical faculty, University of Ljubljana, 1000 Ljubljana, Slovenia. E-mail: aleksandarzafirovski5@gmail.com

Keywords: primary care, insurance, financial control, seek live control, prescription control

Background:
The control of primary health care practitioners` work differ between healthcare systems. In Slovenia the formal regulation is conducted by the Health Insurance Fund (HIF), Health Inspectorate, and Ministry of Health. The Slovenian medical chamber conducts the professional supervision. This study aims to evaluate the pattern of control and sanctions of primary care practitioners.

Research questions:
Frequency and form of controls over primary health care physicians in Slovenia

Method:
600 Slovenian primary care practitioners participated in the study of the Association of General Practice / Family Medicine of South-East Europe (AGP / FM SEE in 2017). The quantitative data were analyzed by the use of the Pearson's chi-squared test, correlation and descriptive statistics. We collected qualitative data from GPs` comments and opinions in addition. Textual material was analyzed by qualitative methods.

Results:
This study covers 52% of the of the primary care practitioners in Slovenia. 49% of the public sector and 52% of the private sector had participated in the survey, 462 female and 138 male practitioners. The majority were of age 50-59. 430 were specialists in family medicine. Out of 600 primary care practitioners, 207 were sanctioned for various reasons, males more often than females. Practitioners that are more likely to be sanctioned are: older practitioners, specialists of family medicine, those working in rural areas and individual contractors.
Financial penalties of those, who work in a health center, were usually covered by the health center . Specialist of family medicine are more often victims of a verbal violence at work as a consequence of following the HIF rules, especially those of age 25 - 39 and 40 - 49.

Conclusions:
Sanctions of primary care practitioners vary regarding their characteristics and organizational aspect of work. Individual contractors and rural practitioners are more prone to sanctions.

Points for discussion:
Criteria of quality assessment or bureaucratic approaches

Financial sanctions- examples from abroad

Presentation on 10/05/2019 16:30 in "Parallel Session F - Freestanding Papers: Governance and Training in General Practice" by Aleksandar Zafirovski.

Freestanding Paper / Finished study

Role of Educative Family Health Centers in Family Medicine Residency Programme of Turkey

Hasan Hüseyin Şahin, Pemra C. Unalan, Serap Cifcili

Marmara University Hospital, Family Medicine, 34100 Istanbul, Turkey. E-mail: hassah54@hotmail.com

Keywords: primary care, residency, field training, family medicine, community oriented medical education

Background:
It is realistic to acquire proficiency in the field during the course of Family Medicine training, which is a primary care and community-oriented clinical specialty. The establishment of the Educative Family Health Centers (E-FHC) is a step towards achieving this. In this study, it was aimed to reveal the expectations, thoughts, experiences and suggestions of the residents, specialists and trainers related to the E-FHCs that have been established so far.

Research questions:
What is the role of E_FHC in Family Medicine Residency Programme?

Method:
This is a mixed methodology study that used qualitative and quantitative designs together. The whole population was reached in 9 institutions which has E-FHCs in Turkey. A quantitative questionnaire consisting of 50 questions was applied to residents who served at E-FHC for at least 3 months. The qualitative part of our research was carried out by taking 30 minutes of in-depth interviews with 16 trainers who worked at E-FHC for at least 3 months; transcripts were extracted, codes were determined for theme analysis. Analysis was performed and $p < 0.05$ was considered statistically significant

Results:
The response rate was 89%. 88.8% of participants were satisfied with working at E-FHC; 96.2% agree that E-FHCs are important. The average scores of the physicians working in the units where population was 2000 patients and more, were significantly higher than those with less population ($p<0.01$, $p=0.01$, respectively). The codes obtained as a result of interviews with trainers were collected in topics like importance of E-FHCs in residency programme, field and non-field education, experiences during the establishment and operation of E-FHCs, emotions of trainers in the process and discipline of Family Medicine.

Conclusions:
E-FHCs are in the beginning of the road and need to be developed. It is necessary to construct well equipped and staff supported E-FHC where trainers should be able to perform role model practices.

Points for discussion:
Are there any field training centers during resideny programme in your country?

What is your opinion/advise for functionality of E-FHCs?

Presentation on 10/05/2019 16:30 in "Parallel Session F - Freestanding Papers: Governance and Training in General Practice" by Hasan Hüseyin Şahin.

Freestanding Paper / Finished study

Eleven Quality of life scales are available for the general population, nevertheless very few are reproducible and none has undertaken an external validation survey.

Jeanlin Viala, Jerome Fonseca, Le Goff Delphine, Lalande Sophie, Michele Odorico, Laurent Tosoni, Paul Aujoulat, Lucas Beurton-Couraud, Pierre Barraine, Patrice Nabbe, Jean Yves Le Reste

EA SPURBO, médecine générale, 29200 Brest, France. E-mail: lereste@univ-brest.fr

Keywords: quality of life, scales and indexes

Background:
Quality of life is an important theme for quantitative surveys in primary care. Treatments and procedure need to assess if they change patients' quality of life. This difficulty has led to the creation of evaluation scales. The purpose of this study was to determine reproducibility and efficiency of 11 previously selected quality of life scales (selected with a systematic review) for general population.

Research questions:
What is the best possible reproducible and efficient quality of life scale for general population ?

Method:
The search was conducted from November 2017 to April 2018 in Pubmed and Cochrane databases, according to the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyzes) protocol. The inclusion criteria were the psychometric qualities for each of the 11 scales studied. Articles dealing with subpopulations or not written in IMRAD format were excluded. The collected values were reproducibility and efficiency.

Results:
46 out of 206 selected articles were included. Cronbach's alpha by domain and Pearson's coefficient were the most analyzed psychometrics. No valid efficiency data was obtained. The internal consistency was over 0.7 for the SF-36, SF12v2 and EQ-5D scales. The Pearson coefficient was over 0.4 for the SF36v2, SF-12 and SF-12v2 scales. The Cohen's Kappa ranged from 0.4 to 0.80 for the EQ-5D questionnaire.

Conclusions:
No scale is fully validated. Reproducibility values were incomplete (Cronbach's alpha and Pearson's most expressed). No efficiency data was found. The most validated scales are The SF family and the EQ5 D. Researchers and clinicians should be aware of these limitations when choosing a quality of life scale. They should return to the scales' designs to choose the one that is underlining the type of quality of life they want to assess as no external validity is available.

Presentation on 11/05/2019 09:10 in "Parallel Session G - Freestanding papers: Quality of Care and the Patient Perspective" by Lalande Sophie.

Freestanding Paper / Ongoing study with preliminary results

Quality of primary care (QUALSOPRIM) study: Professionals' Insights into the Patient Perspective: A Qualitative Study in the Field of quality of primary care.

Jérémy Derriennic

UFR médecine, médecine générale, 22200 GUINGAMP, France. E-mail: jeremy_derriennic@hotmail.com

Keywords: quality of primary care; multimorbid patients; multidisciplinary health professionals

Background:
The management of multi-morbid patients requires a global approach combining the interventions of several health professionals in a coordinated care pathway to enhance quality of primary care (QOPC). Multi-professional structures are the privileged places for this pathway and professionals show a growing interest in this multidisciplinary approach. Simultaneously quality approach is part of the specifications of these structures. In absence of a validated tool to measure QOPC it seemed necessary to collect their description of QOPC. This description will be added to patients and caregivers point of view to design and validate a tool for QOPC.

Research questions:
What are the aspects of primary care that are relevant for QOPC for health professionals?

Method:
Qualitative study using semi-structured interviews of health professionals, supporting patients requiring coordinated multi-professional care, within multi- professional structures. Recruitment was purposive to assess completeness on age, gender and profession. Analysis was carried out using a grounded theory based blinded thematic analysis with a couple of sociologist and GP researchers.

Results:
The sixty professional interviews allowed toidentify one hundred and seventy two specific aspects of QOPC. Their categorization highlighted eleven dimensions of care that are accessibility, availability, continuity of care, holistic approach, medico-technical care, inter-professional communication, professional- patient relationship, information and support, care coordination in the structure, care organization on the territory, and the fitting-out of the premises.

Conclusions:
The analysis rediscovered and explored all the dimensions of the existing quality assessment tools for primary care. New aspects of care are emerging, regarding to those highlighted with patients analysis: especially with regard to professional interaction and coordination. We will summarize the information collected with patients, caregivers and health professionals in order to establish a scale of assessment of QOPC.

Points for discussion:
link between local organization and aspects highlighted

specificities related to health professionals

degree of concordance with patients' point of view

Presentation on 11/05/2019 09:10 in "Parallel Session G - Freestanding papers: Quality of Care and the Patient Perspective" by Jérémy Derriennic.

Freestanding Paper / Finished study

The TATA survey: The translations of the WAI SR are homogeneous between Spain, Poland, Slovenia, France and Italy.

Fabienne Morvan, Nicolas Toupin, Krzysztof Buczkowski, Ana Claveria, Nicola Buono, Davorina Petek, Jeanlin Viala, Jerome Fonseca, Jean Yves Le Reste

DUMG brest, 29200 Brest, France. E-mail: fabienne.s.morvan@gmail.com

Keywords: therapeutic alliance, forward-backward translation, Delphi

Background:
The concept of therapeutic alliance emerged in the beginning of the 20 th century and comes from psychoanalysis. This notion was then extended to somatic field and aims to replace the paternalistic model in doctor-patient relationship. The EGPRN TATA group selected the WAI SR as the most reliable and reproducible scale to assess therapeutic alliance. To use it within Europe, it was necessary to translate it into most European languages. The aim of the following study was to assess the linguistic homogeneity of five of these translations.

Research questions:
Are the translations of the WAI SR homogeneous between Spain, Poland, Slovenia, France and Italy?

Method:
Forward-backward translations were achieved in 5 participating countries (Spain, Poland, France, Slovenia and Italy). Using a Delphi procedure, a global homogeneity check was then performed by comparing the five backward translations during a physical meeting involving GPs teachers/researchers from many European countries: the heterogeneity of the participants origins was a token of reliability.

Results:
107 experts participated in the assessment of the five translations. A consensus was obtained in one to two Delphi rounds for each. During the “homogeneity check”, some discrepancies were noted with the original version and were discussed with the local teams. This last stage permitted to highlight cultural discrepancies and real translation issues and to correct if needed.

Conclusions:
Five homogeneous versions of the WAI SR are now available in five European languages. They will be helpful to evaluate therapeutic alliance at different levels: for GPs in daily practice, for students during the initial and continuous training, and for further research in these 5 countries.

Presentation on 11/05/2019 09:10 in "Parallel Session G - Freestanding papers: Quality of Care and the Patient Perspective" by Fabienne Morvan.

Freestanding Paper / Study Proposal / Idea

Multimorbidity-Effect of multi morbidity on duration of stay in community ward

Aaseem Farid

Mersey care NHS Trust, L7 9NJ Liverpool, United Kingdom. E-mail: aaseem2812@gmail.com

Keywords: Multimorbidity

Background:
With increase in age multi-morbidity tends to go up.Multi-morbidity has a significant effect on the quality of life in a patient. Multi-morbidity is an important factor in frailty.Electronic Frailty score uses multi-morbidity to score the level of frailty in a patient.

Research questions:
Is there an effect on the length of stay of a patient as a result of multi morbidity
in an intermediate care ward

Method:
It is a retrospective cohort study looking at patients who were admitted in the intermediate care wards in the month of December and January 2019 comparing patients with different degrees of multi-morbidity. first group having 1-2 morbidities, the second group 3-5, the third group6-10 and the fourth group >10.
Comparing the duration of stay in these four groups and see if there is an effect of multi-morbidity on the outcomes.

Results:
I am aiming to complete the study by the time of the conference with the aim of presenting the results at the time of conference.

Conclusions:
This study could help to gain better understanding of the effect of multi-morbidity in the context of hospital stay.
It can either prove or disprove the notion that multi-morbidity has a significant impact on the health costs.

Presentation on 11/05/2019 09:10 in "Parallel Session H - EGPRN Special Methodology Session" by Aaseem Farid.

Freestanding Paper / Study Proposal / Idea

Research on multimorbidity-the time for paradigms change

Ljiljana Majnaric

Faculty of Medicine, Faculty of Dental Medicine and Health ; Josip JurajStrossmayer University of Osijek ;, 31000 OSIJEK, Croatia. E-mail: ljiljana.majnaric@gmail.com

Keywords: multimorbidity, research, family practice, paradigms change

Background:
Medical science is all about associations. We are educated to use a set of well defined statistical methods and linear regression models, to describe these associations. These methods, however, were shown less fruitful in research on multimorbidity. The reasons arephenomena associated with multimorbidity, such as overlapping, non-linearity and networking,for which the standard analytical methods and approaches do not provide an appropriate framework.

Research questions:
Is there a need to change the methodological framework, to facilitate research on multimorbidity? How to do that?

Method:
A review of clinical medicine papers, focus of which was placed on phenomena such as non-linearity, overlapping and interdependency. A review of methods within the concept of Big data analytics. A systematization of some challenging questions and barriers in research on multimorbidity, based on the own experience.

Results:
Family medicine has a potential as the central point for integrated research onmultimorbidity. This potential include the availability of non-selected patients with multimorbidity, a multitude of data being collected at one place and the possibilities of patients monitoring over time. New solutions in digital health technologies open new areas for data collection and communication with patients. To realize this concept, some paradigm changes should take place in family medicine, including new approaches in research, health care system organization, organization of electronic health records and education of primary physicians. Are we ready for these changes?

Conclusions:
Facilitating research on multimorbidity should go via paradigms change.

Points for discussion:
Where we are in research of multimorbidity?

Is it possible to enlarge the scope of these research?

Are we ready for paradigm changes?

Presentation on 11/05/2019 09:10 in "Parallel Session H - EGPRN Special Methodology Session" by Ljiljana Majnaric.

Freestanding Paper / Almost finished study

The Hawthorne Effect: systematic review and meta-analysis

Christophe Berkhout, Ornella Berbra, Jonathan Favre, Lieve Peremans, Paul Van Royen

Medical School, Department of General Medicine, 59045 LILLE CEDEX, France. E-mail: christophe.berkhout@univ-lille.fr

Keywords: Hawthorne effect, observation bias, systematic review, meta-analysis

Background:
Biases are major barriers to external validity of studies, reducing evidence. Among the biases, the definition and the reality of the Hawthorne effect (HE) (or observation bias) remains controversial. According to McCambridge in a review from 2013, it is a behaviour change occurring when the subject is being observed during a scientific study. This effect would be multifactorial, and he suggests the term “effects of research participation”. However, the reviewed studies were conflicting and evidence is poor.

Research questions:
We updated McCambridge’s review to actualize the definition of the HE

Method:
McCambridge’s most recent article was dating back to January 3, 2012. We focused on the articles published between January 1st, 2012 and August 10, 2018 searching Medline. We used the solely key-word “Hawthorne Effect”. The search was filtered ranging the dates, the availability of an abstract and the languages English and French. We included articles defining or evaluating the HE. Articles citing the effect without defining it or irrelevant to the topic were excluded. Two independent readers, searched and analysed the articles. Discrepancies were solved by consensus.

Results:
Out of 106 articles, 42 articles were included. All the articles acknowledged an observation bias, considered as significant or not, depending on the population (education, literacy…), the methods and the variable of interest. It was a psychological change, limited in time. The HE was defined as a change of behaviour related to direct or indirect observation of the subjects or the investigators, to their previous selection and commitment in the study (written agreement) and to social desirability. Despite observations, articles were conflicting. Some do confirm the existence of this HE, others deny it. Meta-analysis is ongoing.

Conclusions:
No formal consensus regarding the definition of the effect has been reached so far. However, the authors agree on its implication as an experimental artefact.

Points for discussion:
How to anticipate the HE when designing a research? what consequence regarding the external validity of studies in primary health care?

Is research in primary care more prone to the HE?

Can the HE be used to improve quality of care?

Presentation on 11/05/2019 09:10 in "Parallel Session H - EGPRN Special Methodology Session" by Christophe Berkhout.

Theme Paper / Finished study

Associations of sociodemographic and clinical factors with perinatal depression among Israeli women

Limor Adler, Judith Tsamir, Rachel Katz, Gidon Koren, Ilan Yehoshua

Israel Association of Family Physicians, 7864712 Ashkelon, Israel. E-mail: adler_l@mac.org.il

Keywords: perinatal depression, women, mothers

Background:
Perinatal depression has been associated with psychiatric morbidity in mothers and their offspring. This study assessed the prevalence of perinatal depressive symptoms in a large population of women, and investigated associations of these symptoms with demographic and clinical factors.

Research questions:
Which factors (including sociodemographic, medical, lifestyle, and laboratory test) are associated with perinatal depression?

Method:
All members of Maccabi Health Services who filled the Edinburgh Postnatal Depression Scale (EPDS) during 2015-2016 were included in the study. Odds ratios (ORs) were calculated for associations of sociodemographic, medical, lifestyle, and laboratory test factors with perinatal depressive symptoms, according to a score >10 on the EPDS.

Results:
Of 27,912 women who filled the EPDS, 2,029 (7.3%) were classified as having peripartum depression. In a logistic regression analysis, the use of antidepressant medications, particularly for a period greater than 3 months, Arab background, current or past smoking, a diagnosis of chronic diabetes and age under 25 years were all associated with increased ORs for perinatal depression; while Orthodox Jewish affiliation, residence in the periphery and higher hemoglobin level were associated with lower ORs. Incidences of depression were 17.4% in women with a history of antidepressant medication, 16.0% among women with diabetes, and 11.8% among current smokers.

Conclusions:
A number of demographic, medical, and lifetime factors were found to be substantially more prevalent among women with symptoms of perinatal depression than those without. Encouraging women to fill the EPDS during and following pregnancy may help identify women in need of support.

Points for discussion:
importance of early detection

recognising groups at high risk for perinatal depression

Presentation on 11/05/2019 11:00 in "Parallel Session I - Theme Papers: Risk Factors and Disease" by Limor Adler.

Theme Paper / Finished study

Factors associated with unplanned hospitalisations and emergency department visits among elderly people with multimorbidity and polypharmacy in primary care: the FOPAS cohort study

Julie Fabre, Sophie Vallot, Julien Le Breton, Nadia Oubaya, Joël Cogneau, Sylvie Bastuji-Garin, Emilie Ferrat

Department of General Medicine (DMG) - University Paris Est Créteil (UPEC), 77210 Coulommiers, France. E-mail: JulieFBR@aol.com

Keywords: Hospitalisation, Emergency, Elderly, Multimorbidity, Polypharmacy, Primary Care

Background:
Unplanned hospitalisations and emergency department visits among elderly represent a major burden for care system. Several risk factors have been described: undernutrition, depression, fall. But their potential role has not been assessed in a large cohort of elderly patient with multimorbidity and polypharmacy in primary care.

Research questions:
Our aim was to identify factors associated with unplanned hospitalisation and / or emergency department visit among elderly people with multimorbidity and polypharmacy in primary care.

Method:
We conducted a national prospective cohort of people aged 75 years and older, polymedicated (at least 5 drugs) and followed by their GP. Patients were recruited between April and June 2016 and followed for 6 months. Data collected at baseline were social (age, sex, occupation, social coverage, environnent and lifestyle) and medical (history of unplanned hospitalisation and fall, comorbidities, prescribed drugs, frailty criteria). Unplanned hospitalisation and / or emergency department visit were evaluated at 6 months of follow-up. Logistic regression models were performed to explain the composite outcome : unplanned hospitalisation and / or emergency department visit.

Results:
194 MG included 1 883 patients, of whom 60.2% were women, on average 83.4 years old. During follow-up, 257 (13.7%) patients had unplanned hospitalisation, 179 (9.6%) had emergency department visit, and 346 patients (18.4%) presented one and / or the other event. Factors independently associated with composite outcome were older age (ORa=1.03[95%CI:1.00-1.05]), living alone (ORa=1.40[1.06-1.85]), presence of an informal caregiver (ORa=1.75[1.25-2.44]) or professional (ORa=1.45[1,10-1.93]), existence of a long-term condition (ORa= 1.57[1.08-2.28]), a recent history of fall (ORa=1.44[1.09-1.90]) or hospitalisation (ORa=2.25[1.61-3.15]), and presence of comorbidities: depression (ORa=1.64[1.12-2.39]), undernutrition (ORa=2.43[1.11-5.34]), chronic obstructive pulmonary disease (ORa=1.64[1.10-2.44]), respiratory failure (ORa=2.79[1.57-4.98]).

Conclusions:
This work has identified many risk factors for unplanned hospitalisation and / or emergency department visit among elderly people with polypharmacy in primary care.

Points for discussion:
Several factors have been associated with composite outcomes

Presentation on 11/05/2019 11:00 in "Parallel Session I - Theme Papers: Risk Factors and Disease" by Julie Fabre.

Theme Paper / Finished study

High number of GP's visits and number of illnesses are risk factors for multimorbid patients.

Jerome Fonseca, Jeanlin Viala, Anne Lise Thos, Delphine Le Goff, Sophie Lalande, Michele Odorico, Pierre Barraine, Patrice Nabbe, Jean Yves Le Reste

EA SPURBO, médecine générale, 29200 Brest, France. E-mail: lereste@univ-brest.fr

Keywords: multimorbidity, cohort survey

Background:
Through a systematic review of literature and qualitative research across Europe, the European General Practitioners Research Network (EGPRN) has designed and validated a comprehensive definition of multimorbidity. It is a concept considering all the biopsychosocial conditions of a patient. This concept is encompassing more than 50 variables and is consequently difficult to use in primary care. Regarding adverse outcomes (as death or acute hospitalization) could help to distinguish which variables could be risk factors of decompensation within the definition of multimorbidity.

Research questions:
which criteria in the EGPRN concept of multimorbidity could detect outpatients at risk of death or acute hospitalization (ie decompensation) in a primary care cohort at 24-months of follow-up?

Method:
131 primary care outpatients answering to EGPRN multimorbidity's definition were included by GPs, during two periods of inclusion in 2014 and 2015. At 24 months follow-up, the status "decompensation" or "nothing to report" was collected. A logistic regression following a Cox model was performed to achieve the survival analysis and to identify potential risk factors.

Results:
At 24 months follow-up, 120 patients were analyzed. 3 different clusters were identified. Forty-four patients, representing 36,6% of the population, had either died or been hospitalized more than seven consecutive days. Two variables were significantly associated with decompensation: Number of GPs encounters per year (HR 1.06, 95%CI 1.03-1.10, p<0,001), and total number of disease (HR 1.12; 95%CI 1.03-1.33; p=0,039).

Conclusions:
To prevent death or acute hospitalization in multimorbid outpatients, GPs may be alerted by those with high rates of GPs encounters or a high number of illnesses. These results are consistent with others in medical literature.

Presentation on 11/05/2019 11:00 in "Parallel Session I - Theme Papers: Risk Factors and Disease" by Jean Yves Le Reste.

Theme Paper / Finished study

Lifetime Risk, Multimorbidity and Disease-Free Life Expectancy of Noncommunicable Diseases in the General Population: A Prospective Cohort Study

Silvan Licher, Alis Heshmatollah, Kimberly D. Van Der Willik, Bruno H. Ch. Stricker, Rikje Ruiter, Emmely W. De Roos, Lies Lahousse, Peter J. Koudstaal, Albert Hofman, Lana Fani, Guy G. O. Brusselle, Daniel Bos, Banafsheh Arshi, Maryam Kavousi, Maarten J. G. Leening, M. Kamran Ikram, M. Arfan Ikram

Erasmus MC - University Medical Center Rotterdam, Rotterdam, The Netherlands, 3015GD Rotterdam, Netherlands. E-mail: s.licher@erasmusmc.nl

Keywords: Multimorbidity, lifetime risk, life expectancy, disease-free, noncommunicable disease, NCD, general population, primary care, risk, disease, healthy

Background:
The burden and preventive potential of disease is typically estimated for each non-communicable disease (NCD) separately, but NCDs often co-occur which hampers reliable quantification of their overall burden and joint preventive potential in the population.

Research questions:
What is the lifetime risk of developing any NCD?
Which multimorbidity clusters of NCDs cause the greatest burden?
To what extent do three key shared risk factors, namely smoking, hypertension and overweight, influence this risk, life-expectancy and NCD-multimorbidity?

Method:
Between 1990 and 2012, we followed NCD-free participants aged ≥45 years at baseline from the Dutch, prospective Rotterdam Study for incident stroke, heart disease, diabetes, chronic respiratory disease, cancer, and neurodegenerative disease. We quantified (co-)occurrence, and remaining lifetime risk of NCDs in a competing risk framework, and studied the effects of smoking, hypertension, and overweight on lifetime risk and life-expectancy.

Results:
During follow-up of 9,061 participants, 814 participants were diagnosed with stroke, 1,571 with heart disease, 625 with diabetes, 1,004 with chronic respiratory disease, 1,538 with cancer, and 1065 with neurodegenerative disease. Among those, 1,563 participants (33.7%) were diagnosed with multiple diseases. The lifetime risk of any NCD from the age of 45 onwards was 94.0% (95%CI:92.9-95.1) for men, and 92.8% (95%CI:91.8-93.8) for women. Absence of shared risk factors was associated with a 9.0-y delay (95% CI:6.3-11.6) in the age at onset of any NCD. Furthermore, overall life-expectancy for participants without risk factors was 6.0 y (95%CI:5.7-7.9) longer than those with these risk factors. Participants without these risk factors spent 21.6% of their remaining lifetime with NCDs, compared to 31.8% for those with risk factors.

Conclusions:
Nine out of ten individuals aged 45 years and older will develop at least one NCD during their remaining lifetime. A third was diagnosed with multiple NCDs during follow-up. Absence of three common shared risk factors related to compression of morbidity of NCDs.

Presentation on 11/05/2019 11:00 in "Parallel Session I - Theme Papers: Risk Factors and Disease" by Silvan Licher.

One-Slide/Five Minutes Presentation / Ongoing study no results yet

Do Patient Oriented General Practitioners / Family Doctors (GPs/FDs) with Internal Locus of Control have Lower Level of Burnout in Management of Multimorbidity?

Radost Assenova, Gergana Foreva, Nonka Mateva Mateva, Jean Karl Soler, Jean Yves Le Reste, Mehmet Ungan

Medical University Plovdiv, General Practice, 4000 Plovdiv, Bulgaria. E-mail: r_assenova@yahoo.com

Keywords: General Practitioners / Family Doctors (GPs/FDs), burnout, locus of control, patien-centred care, multimorbidity

Background:
Burnout has been widely studied among general practitioners / family doctors (GPs/FDs) in primary health care settings (PC). It is associated with negative consequences for providers and patients. Reviews demonstrate associations between burnout and different situational factors as well as individual characteristics of the GPs/FDs. The increasing prevalence of multimorbidity represents a major challenge to GPs/FDs. This is due to the patients' comprehensive needs and the intensity of interventions that lead to an overload in PC. Nevertheless, the adoption of a patient-centred approach is considered as a solution for providing efficient care for multimorbidity patients. However, little is known about the relationship in between, burnout and locus of control and the patient centeredness among GPs/FDs.

Research questions:
Is the level of burnout of GPs/FDs associated with their locus of control?
Is the level of burnout of GPs/FDs associated with their patient centeredness for multimorbidity patients?

Method:
A cross-sectional survey including GPs/FDs, using a validated instrument developed on the basis of the relevant literature. Inclusion criteria - full-time GPs/FDs, working either in state employment (including academic or educational work) or private practice, or both. The comparison will use Maslach Burnout Inventory – (MBI-HSS) for assessing the level of burnout syndrome, the internal-external locus of control scale for evaluation of the locus of control and Shared Decision Making Questionnaire (SDM-Q-Doc) for measurement of shared decision-making related to a multimorbidity case. The data will be processed by SPSS 19 version, applying descriptive statistics, correlation analysis, ANOVA, regression analysis and structural modeling at the level of significance $p<0.05$.

Results:
The hypothesis is that GPs/FDs who are more patient oriented to multimorbidity patients and with an internal locus of control have lower level of burnout.
The results from a pilot study will be presented at the conference.

Conclusions:
Not applicable at the moment

Presentation on 11/05/2019 11:00 in "Parallel Session J - One Slide Five Minute Presentations" by Radost Assenova.

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

Does Time Restricted Feeding (16:8) reduce metabolic risk factors in pre-diabetic individuals who suffer from obesity more than the Caloric Restriction diet

Shani Glazer Reiss, Ilan Yeshayahu, Bili Cohen

maccabi health services israel, 0079565 Kibutz Gat, Israel. E-mail: shaniglazer@gmail.com

Keywords: Intermittent fasting, time restricted feeding, pre-diabetes, obesity, diet

Background:
The pre-diabetic condition is a significant risk factor for both progression to type 2 diabetes and to the development of cardiovascular disease.
The increased risk is associated with glycemic index disorders and a higher rate of high triglycerides, low levels of HDL, elevated blood pressure and obesity.

"Intermittent Fasting" is a method that has gained great popularity in the last decade. There are 2 subcategories of Intermittent Fasting:
1. ALTERNATE DAY FASTING: Fasting of 1-4 days a week and free eating on days not defined as "fast days"
2. TIME RESTRICTED FEEDING A daily fast of between 14-20 hours and free eating during hours that are not defined as "fast hours".
Studies have shown that "intermittent fasting" is an effective diet method for improving a number of metabolic risk factors such as blood lipids, fasting glucose, insulin levels, insulin sensitivity, inflammatory factors and weight loss.

Research questions:
Is Time Restricted Feeding more effective in reducing metabolic risk factors in pre-diabetic individuals who suffer from obesity, than the calorie restriction diet

Method:
controlled randomized study
Study population: Pre-diabetic patients, between the ages of 20-65, who suffer from obesity, without comorbid morbidity. the study population will be chosen from the pre-diabetes registrar of Maccabi Health Services.
intervention:
The study group: will undergo 3 months of Time Restricted Feeding with intervals of 16: 8 (8 hours eating period, 16 hours fasting period).
The control group: will undergo 3 months of intervention with the CALORIC RESTRICTION diet, which is the current method of intervention for these patients.
The intervention in both groups will be performed by Maccabi Health Services dietitians.

Presentation on 11/05/2019 11:00 in "Parallel Session J - One Slide Five Minute Presentations" by Ilan Yeshayahu.

One-Slide/Five Minutes Presentation / Ongoing study no results yet

Feasibility, validity and reliability of Suuntima Customership Navigator Tool in Finnish primary health care

Riikka Riihimies

Tampere University, 37500 Lempäälä, Finland. E-mail: riikka.riihimies@fimnet.fi

Background:
The most vulnerable patients who most need health care services, often lack them while those whose capability to seek for services is good also reach them better. Patients´ coping in every-day life should be an objective when planning individual care and health services, and patients´ condition and values should be examined, as the patient is considered as the expert of his own life.
Customership Navigator Tool is a web-questionnaire for patient and health care professional. It is based on questions about health status and values of the patient. CNT helps to categorize patient to one of the four different customerships: self-acting, community, co-operation or network customership. The result helps the professional to coordinate and the patient to utilize appropriate health services e.g. individual or group appointment, peer groups or online-services. The customership doesn´t guide patient`s medical treatment.
Diabetes is one major chronic condition worldwide and also in Finland, where total cost of diabetes care was 1304 million euros in 2007.

Research questions:
(1.) To examine feasibility of CNT at nurse´s appointment with diabetic patients at health centre, (2.) to study validity. (3.) and reliability of CNT (4.) and to characterize patients in four customership groups.

Method:
This mixed method study is based on CNT reports, questionnaires for nurses (n=14) and diabetic patients (n=300), interviews, medical parameters of diabetes, and WHO-DAS 2.0, EQ-5D, WBQ-12 and DTSQ examination.
COSMIN and quality criteria for measurement properties of health status questionnaires is used as methodological frame of reference. The theoretical background and the process of developing CNT is described. Validity of CNT is evaluated using e.g. factor analysis. Cronbach´s alpha is used to evaluate the internal consistency of CNT. Research hypothesis is that patients in net-work customership group are older, have more illnesses and use health care services more than patients in other customership groups.

Results:
None yet.

Presentation on 11/05/2019 11:00 in "Parallel Session J - One Slide Five Minute Presentations" by Riikka Riihimies.

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

Health time consumption by multimorbidity patients

Ana Carolina Reis Tadeu, Inês Rosendo Carvalho E Silva Caetano, Inês Jorge De Figueiredo

Faculdade de Medicina-Universidade de Coimbra, 3020-212 Coimbra, Portugal. E-mail: carolina.r.tadeu@gmail.com

Background:
Multi-morbidity (MM) is currently one of the major challenges facing health systems at the international level and tends to occupy a considerable part of the daily activity of physicians around the world. It is important to think about the medical approach to dealing with patients with multi-morbidity in order to maximize the quality of the services provided by national health services, and thus to secure a better quality of life for these patients.
There are only 2 studies quantifying medical consultation times for patients with multi-morbidity so more studies are needed to support decisions and to help resources management in order to provide these patients the best quality care possible. So, it is relevant to study the impact on the time required for medical consultation of patients with MM.

Research questions:
Is the average consultation time spent on patients with MM higher than that for a patient does not meet MM criteria? Is the GP consultation time proportional to number of chronic diseases? What is the impact of this in a GP annual schedule?

Method:
An observational study to assess the time spent of patients with multi-morbidity criteria and without multi-morbidity. Calculation based on the average number of MM patients seen by a regular GP in one year time (data extracted from informatic sources).

Results:
We expect to find a superior medical consultation time for patients with multi-morbidity and calculate the average yearly time consumption by these patients in order to understand the impact of this consultations on medical total available schedule time.

Conclusions:
Finding a longer consultation time will be important to rethink and adapt the GP lists to be able to give better medical care to patients with MM, enabling agendas to have specific times dedicated to these patients and enough time for every task required.

Points for discussion:
Is the time usually allocated in the doctor agenda to deal with every patient enough for a MM patient?

Should the consultation time be defined based on the number of chronic diseases?

Should the GP lists be adjusted based on number of chronic diseases in order to have time for every patient consultation needs?

Presentation on 11/05/2019 11:00 in "Parallel Session J - One Slide Five Minute Presentations" by Ana Carolina Reis Tadeu.

One-Slide/Five Minutes Presentation / Ongoing study no results yet

Physical activity prescription

Menashe Meni Amran, Yehudith Meltzer, Keren Hirsh, Rotem Kahana

MACCABI HEALTH SERVICES, 9040800 TENE OMARIM, Israel. E-mail: amran_m@mac.org.il

Keywords: green prescription, physical activity, fitness, PA, exercise prescription

Background:
Physical activity (PA) has many positive health effects on many physiological, cognitive and mental conditions, including mortality reduction. Even so, many physicians do not attribute much importance to this lifestyle, and only a minority of them recommends it to their patients. Studies worldwide have compared verbal recommendations versus written recommendations (prescriptions) and found a clear advantage for written prescriptions in many indices - duration and intensity of activity, physical measures, quality of life, economic burden to the medical system and more.

Research questions:
The main purpose of this study is to check whether a written prescription for physical activity will lead to a more significant improvement in weekly physical activity time than a verbal recommendation.

Method:
Healthy patients aged 18-65 will be randomly divided and given either a written prescription for physical activity, or a verbal recommendation. Changes in physical activity 3 months from intervention will be compared using subjective questionnaires, and objective physical fitness tests.

Results:
Improvement in the length and frequency of physical activity in the written prescription group compared with verbal recommendation.
- Improved physical fitness.

Conclusions:
As a member of the lifestyle society of the Family Physicians Association, it was important for me to show other doctors the importance of physical activity, and the importance of investing in physical activity prescriptions no less than any other prescription medication.

Points for discussion:
Why do we write prescriptions for medications and not physical activity when the last has greater therapeutical effects, cheaper, less adverse effects...?

We should guide physicians on the subject and the importance of medical recommendation (verbal or written) for physical activity.

After the study, if the prescription for physical activity seems to be advantageous, we will promote the implementation of such a prescription in the National Medical information systems.

Presentation on 11/05/2019 11:00 in "Parallel Session J - One Slide Five Minute Presentations" by Menashe Meni Amran.

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

The immigrant family doctors: The challenges of immigration and the impacts on Primary Care

Candan Kendir, Emmanuel Allory, Maria Bakola, Jorge Ernesto Hidalgo Chavez, Gary Velasquez Chavez, Yasmin Córdova, Elena Klusova, Liliana Laranjo, Ana Luisa Neves, Maria Joao Nobre, Alessio Platania, Veronika Rasic, Sara Rigon

Ecole des Hautes études en santé publique, 35200 Rennes, France. E-mail: candankendir@hotmail.com

Keywords: primary care, family doctor, immigrant

Background:
The immigration of doctors have been increasing in recent years. In Germany, the number of EU-national doctors increased eight times between 1991 and 2014. In the UK, the number of doctors from outside of EU who apply to work has doubled from 2017 to 2018. This mobility brings some consequences to the doctors who immigrate and to the healthcare systems.
Doctors migrating to work in a country different to where they originally trained face multiple and complex barriers and stressors. These challenges, varying from cultural and language barriers to system specific problems, have an impact on physician retention and quality of care.
The lack of strategic plans to achieve professional integration of immigrant family doctors (IFD) across the WONCA Europe region makes the process more difficult and stressful. An understanding of challenges faced by IFD, however, is needed to develop adequate support structures.
For this reason, a group of IFD by WONCA gathered to survey the needs of the IFD in Europe, following in the world, and also to identify the impacts on primary care.

Research questions:
What are the challenges experienced by immigrant family doctors in different European countries? How do these challenges affect the personal and professional practice of immigrant family doctors?

Method:
A mixed method study with a sequential path, quantitative and qualitative, was planned. A questionnaire and a semi-structured interview guide will be developed by the authors to collect data. The study population will include WONCA Europe member countries and convenience sampling will be applied. For the analysis of data, SPSS and NVivo softwares will be used.

Results:
This is a study in development phase.

Conclusions:
The immigrant family doctors bring healthcare workforce to the countries they immigrate. However, possible challenges should not be neglected. Identifying the challenges and their impact on IFD will facilitate development of strategies to overcome them.

Points for discussion:
What are the points should be included in the questionnaire?

Is this a relevant topic for you based on your observations/experiences?

Presentation on 11/05/2019 11:00 in "Parallel Session J - One Slide Five Minute Presentations" by Candan Kendir.

One-Slide/Five Minutes Presentation / Ongoing study no results yet

The impact of gender and multimorbidity on the management of type 2 Diabetes Mellitus

Sara Ares Blanco, Isabel Del Cura González, Elena Polentinos Castro, Ana Sosa Alonso, Marisa Rogero Blanco, Orlando Enriquez Dueñas, Luis Sanchez Perruca

SERMAS, 28035 Madrid, Spain. E-mail: sara.ares@salud.madrid.org

Keywords: type 2 Diabetes Mellitus, multimorbidity, sex

Background:
Differences in complications for type 2 diabetes mellitus (DM) and multimorbidity are correlated to patient´s sex and the physician´s gender. Women reach less the recommended objetives by the guidelines. Patients with low socio-economic status (SES) have higher rates of multimorbidity

Research questions:
Do women with low socio-economic status have poorer management of type 2 DM in Primary Care (PC)? Does GP gender influence the variability of care to type 2 DM patients?

Method:
Retrospective observational multicentric study in patients with type 2 DM. Exclusion criteria: patients with gestational diabetes, Mody, type 1 DM. Data collection was conducted in primary care in Madrid area during 2014-2018.

Study 1:
Population: Diabetic patients from Madrid city.
Variables:
a) Primary outcomes: Patients with a controlled glycemic level of HbA1c of ≤ 7% and less than 75 years old or ≤8,5% and older than 75 years old.
b) Secondary outcomes: Sociodemographic factors (age, sex, SES), lifestyles (smoking, alcohol, diet, exercise), health promotion, inmunizations, micro and macrovascular complications (nephropathy, retinopathy, peripheral artery disease, stroke, coronary syndrome and chronic kidney disease), comorbidities (hypertension, hypercholesterolemia, obesity, COPD, anxiety, depression, dementia, heart failure), treatment and use of services.

Study 2:
Population: Diabetic patients and GP from 11 clinics in the Madrid area
Variables:
a) Primary Outcome: The same as in study 1.
b) Secondary Outcomes: The same as in study 1 plus GP's characteristics (age, sex, years of working with the same population, postgraduation year, postgraduate education, mentor, clinical workload)

Points for discussion:
What is the impact of gender and multimorbidity on type 2 DM in PC?

Does the gender of the doctor have any impact on these patient management?

Which has greater impact on these patients: their gender or the lower SES?

Presentation on 11/05/2019 11:00 in "Parallel Session J - One Slide Five Minute Presentations" by Sara Ares Blanco.

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

The relation between the somatization and fatigue as the chief complaint

Pemra C. Unalan, Zeynep Ayaz, Arzu Uzuner, Serap Cifcili

Marmara University, School of Medicine, Department of Family Medicine, 34662 Istanbul, Turkey. E-mail: pcunalan@gmail.com

Keywords: somatization, medically unexplained symptom, fatigue, primary care

Background:
Somatization is a syndrome that consists of physical symptoms that can not be explained by the end result of a medical condition, but cause functional loss in the person. Because of these medically unexplained symptoms (MUS) and their repetition despite their treatment, patients visit physicians frequently so they cause the physicians to become desperate and frustrated. On the other hand fatigue is a common presenting complaint in Primary Care and lead to high rates of test ordering with normal results mostly. Guidelines emphasize the importance of strengthening the doctor-patient relationship and taking into consideration the patient's symptoms, recognition, giving possible information to the patient and empathy for the healing of these.

Research questions:
Which patterns make family physician to diagnose MUS in the patients who visit Primary Care office with fatigue as a chief complaint? Which laboratory tests are chosen for differential diagnosis and why? Which variables affect the family physicians to provide a therapeutic approach or a referral to a patient who is diagnosed somatization/MUS?

Method:
All patients over 18 years of age visiting the Marmara University Family Medicine Center will be informed about the study and if they accept they will be included. Patients with any neurologic or psychologic diseses, acute infections, using any psychiatric medication, with any destructive, progressive, immunologic disease, malignancy, hypothyroidism and uncontrolled diabetes will be excluded. After the history taking and physical examination of the patients, laboratory tests will be ordered and Turkish version of the Patient Health Questionnaire–Somatic, Anxiety, and Depressive Symptoms (PHQ-SADS) will be delivered. Patients will leave the office and complete the questionnaire in the waiting room. A researcher other than the physicians will collect the completed questionnaires.
Patients' diagnosis, PHQ-SADS scores, laboratory tests and other independent variables will be analyzed statistically. Significance testing should be applied. Patients' records will be analyzed qualitatively.

Points for discussion:
What are the limitations of the method?

Are physicians' characteristics be accepted as independent variables?

Which qualitative method is appropriate to analyze the patient records?

Presentation on 11/05/2019 11:00 in "Parallel Session J - One Slide Five Minute Presentations" by Pemra C. Unalan.

Poster / Finished study

A study of expressed and unmet healthcare needs of the population of Brasov County Romania, in relation with family doctors.

Andrea Neculau, Liliana Rogozea, Florin Leasu, Ioana Atudorei, Dana Popa, Anca Lacatus

UNIVERSITATEA TRANSILVANIA, 500019 BRASOV, Romania. E-mail: andrea.neculau@unitbv.ro

Keywords: Health Need, family doctor, Romania

Background:
In the context of a Health Needs Assessment project commissioned by Brasov County Council to the University, a multidisciplinary team from Transylvania University, comprising family doctors, public health specialists, sociologists, economists have done a complex health needs assessment at all levels of Healthcare from the region. In this paper we present only the section of the analysis related to family medicine.

Research questions:
Is the population of County Brasov covered with essential services at the FD's office in comparison with international standards?

Method:
We developed a 34 items questionnaire aimed to inquire about perceived health needs, expressed needs and unmet healthcare needs in the population of Brasov County Romania.
1200 questionnaires were distributed in the adult population of Brașov county, considering a mapping of all type of communities. It was a self-administered questionnaire the location of delivery were family physicians' offices and local councils.
Data was analyzed with SPSS.

Results:
We evaluated the access to the family doctor (FD), Health problem not resolved after FD encounter, constancy in being registered with FD, availability of a FD in the community, presence of a second doctor in the community, availability of out of hours services led by FD's, opening hours, knowledge about patient's history, time spent at consultation, span of diseases that can be addressed, availability of preventive services. The lowest scores are noted with the following services: Pap smear at the FD's office (46,3%), blood draw (63%), electrocardiogram (56%), out of hours services in the area (58,6%).

Conclusions:
Family doctors are perceived as an accessible and reliable health resource, where most health problems can be solved. Important services like Pap smear testing is not done in many FD offices and this is an important public health problem. It is important to use this information at various levels to implement the necessary changes.

Presentation on 11/05/2019 14:00 in "Poster Session 1 - Multimorbidity" by Andrea Neculau.

Poster / Finished study

Analysis of multimorbidity patterns in accordance with different prevalence cut-off points

Marina Guisado-Clavero, Sergio Fernández-Bertolín, Albert Roso-Llorach, Quintí Foguet-Boreu, Concepción Violán

IDIAP JORDI GOL, 08007 Barcelona, Spain. E-mail: marina.guisado@gmail.com

Keywords: chronic conditions, multimorbidity, cut-off points

Background:
The term multimorbidity widely refers to the existence of multiple medical conditions in a single individual. The identification of multimorbidity patterns seem to be implicitly dependent on the prevalence of the included diseases in the analysis. However, no previous study has analysed the identification of multimorbidity patterns explicitly based on the prevalence of the diseases.

Research questions:
Is there any difference in multimorbidity patterns related to cut-off points applied in disease prevalence?

Method:
A cross-sectional study was conducted based on data from public primary care services electronic health records in Catalonia, Spain, in 2012. We extracted data on demographics and ICD-10 chronic diagnoses for patients aged ≥65 (60 SNAC-K chronic diseases). Principal component analysis of categorical and continuous variables for dimensionality reduction and machine learning techniques were applied to the identification of disease clusters in a fuzzy c-means analysis. Sensitivity analysis with different prevalence cut-off points (no filtering, 1% and 2% prevalence for chronic diseases), were conducted.

Results:
The most prevalent chronic diseases were: hypertension (71.0%), Dyslipidaemia (50.9%), Osteoarthritis and other degenerative joint diseases (32.8%), Obesity (28.7%), Diabetes (25.1%) and anaemia (18.3%). The number of optimal clusters was the same for the three different prevalence thresholds: no filtering, ≥1% and ≥2% filters. Eight multimorbidity patterns were identified using fuzzy c-means algorithm, one non-specific (high prevalence diseases) and 7 patterns encompassing different anatomical systems: blood, cardiovascular-circulatory, digestive, genitourinary, musculoskeletal, nervous-mental systems.

Conclusions:
The different cut-off points (prevalence filters) applied to obtain multimorbidity patterns, allowed to identify common nuclear diseases that remain independent of the prevalence of the diseases. We selected the higher prevalence (2%) to obtain the patterns because they had more clinical representativeness.

Points for discussion:
Which diseases are likely to be included in the analysis of multimorbidity

Need for consensus of cut off point for diseases

Common nuclear diseases which remained independent of their prevalence

Presentation on 11/05/2019 14:00 in "Poster Session 1 - Multimorbidity" by Concepción Violán.

Poster / Ongoing study with preliminary results

Assessment of digital services for complex patients in primary care, an EIP-AHA Reference site case study

Vanja Lazic, Nada Pjevac, Ana Masic, Lea Milutinovic, Dorotea Sijak, Maja Matlekovic, Antonija Balenovic

Health center Zagreb - Center, 10000 Zagreb, Croatia. E-mail: vanjlaz@gmail.com

Keywords: primary care, digital services, complex patients, EIP-AHA

Background:
The evolving digital service landscape in primary care provides an opportunity to address the previously unmet needs of the complex patients. Health center Zagreb – Center (HCZC), a primary care institution coordinating the effort of over 100 family medicine teams in Zagreb, Croatia has been a lead partner of the City of Zagreb reference site of the European Innovation Partnership on Active and Healthy Ageing (EIP-AHA) since 2016. EIP-AHA brings together relevant stakeholders to facilitate the development and adoption of innovation in healthcare. In 2018, HCZC has co-developed and implemented several new digital services in integrated care domain, usable by family doctors.

Research questions:
The aim was to assess the performance of digital services of HCZC in terms of potential to meet the needs of complex patients and to identify service gaps in integrated care delivery.

Method:
In this case study, a vignette-based tool with personas representing different age groups and levels of complexity of health needs, developed by the WE4AHA project, was used. Four personas described as “complex” with 14 total described needs were included. Digital service to patient need matches were weighted for “usefulness” to the persona on a scale 1-3 each (1-lowest, 3-highest). Scores of all services addressing a single persona need were added to get the final score.

Results:
HCZC services scored low on 8/14 of the complex persona needs. The needs most well addressed in all 4 studied personas were those of chronic disease and therapy management.

Conclusions:
The results could reflect that services are designed to predominantly follow up the physical components of chronic diseases, while the integrated/biopsychosocial health care approach has not been yet adequately implanted in digital solutions. Large service gaps exist in integrated care delivery, highlighting the potential areas for future improvement through the development of new services or strengthening partnerships for coordinated health and social care.

Points for discussion:
How can technology improve doctor-patient communication and relationship?

What assessment tools could further estimate the overall health benefit of using digital technology in primary health care?

Is it appropriate to use persona vignettes to describe health and social needs of the population?

Presentation on 11/05/2019 14:00 in "Poster Session 1 - Multimorbidity" by Lea Milutinovic.

Poster / Ongoing study with preliminary results

Characteristics of Patients Receiving Long-Term Home Nursing Care and the Role of the Nurse

Ludmila Marcinowicz, Maciej Stojak

Medical University of Bialystok, 15 054 Bialystok, Poland. E-mail: ludmila.marcinowicz@umb.edu.pl

Keywords: Long-term Home Nursing Care, Multiple morbidity, Nursing procedures

Background:
Long-term Home Nursing Care (LTHNC) in Poland provides at-home care for chronically ill or disabled persons as part of the national health insurance programme. To qualify, patients must have a functional status of 40 points or less on the 100-point Barthel scale and be referred by a physician. Each patient is visited by a nurse at least 4 times a week.

Research questions:
(1) What patient demographic is served by LTHNC? (2) What is the functional status of LTHNC patients? (3) What illnesses and disabilities are seen in patients referred to LTHNC and are there sex differences? (4) What nursing procedures are usually performed?

Method:
Retrospective descriptive study design and document research were used. We collected data from the medical records of 233 patients receiving LTHNC at the Non-Public Health Care Centre OMNI-MED in Bialystok (Poland) from 31 December 2017 to 31 October 2018.

Results:
Of the 233 patients who received LTHNC in the 10-month study period, 75% were women and 74% were aged 75 or above. The mean Barthel score at the beginning of LTHNC was 9.53, and the mean number of diseases per patient was 3.39 (range 1 to 11). The prevailing diagnoses in women were: decubitus ulcer (12.6%), hypertension (8.9%), heart failure (6.1%), polyarthrosis (4.2%) and dementia (3.9%); in men they were: decubitus ulcer (14.1%), heart failure (7.7%), hypertension (6.5%), flaccid hemiplegia (4.7%) and dementia (4.1%). The most frequently performed nursing procedures were measurements of pulse, arterial blood pressure and temperature. Other common nursing procedures were: help with breathing exercise, drug administration and non-excisional debridement of wounds.

Conclusions:
Elderly women with multiple morbidities were the main recipients of LTHNC. Monitoring of vital signs and providing care assistance were the primary nursing activities. This information can be used when planning at-home nursing care.

Presentation on 11/05/2019 14:00 in "Poster Session 1 - Multimorbidity" by Ludmila Marcinowicz.

Poster / Finished study

Research on multimorbidity using general practitioners‘ electronic patient records

Johannes Hauswaldt, Katharina Schmalstieg

Institut für Allgemeinmedizin UMG, 37073 Göttingen, Germany. E-mail: johannes.hauswaldt@med.uni-goettingen.de

Keywords: routine data; electronic patient record; secondary data analysis; general practitioner

Background:
Data for primary care and health services research are urgently needed, but not easily available in Germany due to lack of a central collection point and to limited access from privacy protection and technical barriers.

Research questions:
How to define multimorbidity when doing research using GP's electronic routine data? Are multimorbid patients frequent attenders?

Method:
Two routine data sets from electronic patient records, of one general practice, 1994 until 2017, and from 166 practices, 1994 until 2007, were analyzed on annual base.
Multimorbidity was defined from leading 3 characters of patient’s ICD codes and from first letter representing ICD chapter, respectively.
Difference in days between two consecutive practice contacts yielded inter-contact intervals (ICI). Patient’s median annual ICI allowed for attribution to lowest 10th resp. 5th percentile as „frequent attender“.
Association of frequent attender status with several levels of multimorbidity was calculated as odds ratio, with 95% confidence interval.

Results:
8,471 patients, 58.1% female, from one practice and 316,439 patients, 55.4% female, from 163 general practices, had an overall median annual number of 4 truncated ICD codes per patient (IQR 2 to 7) and of 2 (1 to 5), respectively. Median number of ICD chapters per patient was 3 (1 to 5) and 2 (1 to 4).
Odds ratio of 10th and 5th percentile frequent attenders‘ association increased monotoneously with number of ICD codes and of ICD chapters in both data sets
Additional numeric and graphical results from variation in defining multimorbidity and frequent attendance, ovarall and on annual base, are presented at EGPRN meeting.

Conclusions:
Multimorbid patients and frequent attenders can be identified from GP's electronic patient records. Multimorbid patients are frequent attenders, association increases with annual number of chronic conditions. For comparable results and check on external validity, consensus to reach uniform definition of multimorbidity is needed, as well as representative data samples.

Points for discussion:
In your country, do you have access to GP's routine data for primary health care or health services research?

What is needed for a comprehensive and sustainable health data research management?

Can we reach consensus on definition of multimorbidity?

Presentation on 11/05/2019 14:00 in "Poster Session 1 - Multimorbidity" by Katharina Schmalstieg.

Poster / Finished study

Evolocumab Versus Ezetimibe in Addition To Statins For Secondary Prevention Of Major Adverse Cardiovascular Events In Patients with Type 2 Diabetes and Hypercholesterolemia

Joseph Azuri, Ariel Hammerman, Ronen Arbel

Sackler Faculty of Medicine, Tel Aviv University, 6745605 Tel Aviv, Israel. E-mail: azuridr@gmail.com

Keywords: evolocumab, ezetimibe, MACE, diabetes

Background:
Evolocumab, a PCSK9 Inhibitor and Ezetimibe, were both proven to significantly reduce the incidence of major adverse cardiovascular events (MACE) in type 2 diabetes patients with established CV disease and LDL cholesterol >70 mg/dL treated with statins. However, the addition of either Evolocumab or Ezetimibe to current statin treatment regimens may be a significant burden on healthcare systems.

Research questions:
To compare the cost of MACE Prevention with combination of statins with either Ezetimibe or Evolocumab.

Method:
We performed a cost-minimization analysis of Evolocumab and Ezetimibe for preventing MACE (Stroke, Myocardial Infarction and CV death). Hazard ratios for prevention of MACE were extracted from the published data of the IMPROVE-IT and FOURIER trials. Drug costs are based on 2017 US National Average Drug Acquisition Costs.

Results:
In the FOURIER trial, 12,135 patient-years treatment with Evolocumab resulted in the prevention of 91 MACE. In IMPROVE-IT 14,754 patient-years with Ezetimibe resulted in the prevention of 118 MACE. The annual cost of Evolocumab and generic Ezetimibe and is $14,513 and $389 respectively. Therefore, the cost of the drugs needed to be utilized to prevent one MACE would be $1,935,014 for Evolocumab (95% CI: $1,237,952-$4,951,806) and $48,576 for Ezetimibe (95% CI: $30,739- $89,144).

Conclusions:
The addition of Ezetimibe to statins for preventing CV death in type 2 diabetes patients with established CV disease seems to be a major cost-saving strategy compared to Evolocumab with statins. These results should be considered in the context of other drug-specific and individual patient factors.

Points for discussion:
How should the clinician consider medical treatment in an era of financial constraints ?

How important are financial issues and drug costs in clinical decision making ?

Presentation on 11/05/2019 14:00 in "Poster Session 2 - Diabetes" by Joseph Azuri.

Poster / Finished study

How does quitting smoking affect weight, metabolic measures and the risk of developing Diabetes Mellitus

Corinne Herskovizh

Clalit health care, Holon, Israel. E-mail: corinne.del@gmail.com

Keywords: Diabetes mellitus, smoking cessation, weight gain

Background:
Smoking and obesity are both significant risk factors for morbidity, and therefore targets for health promotion and preventive medicine measures. Most people who stop smoking end up gaining weight. Studies have shown that smoking is related to increased insulin resistance and higher cholesterol levels. However, there is a controversy as for the risk of developing diabetes after smoking cessation.

Research questions:
What is the relation between smoking cessation, weight gain and the risk of developing diabetes?

Method:
The study was conducted in the Central District of "Clalit Health Service" (CHS) in Israel.
3641 smokers were identified as having purchased Varenicline in the years 2010-2012. Those diagnosed with diabetes before cessation and those having incomplete records, were excluded. The study was conducted on the remaining 2371 patients.
Study variables - smoking status, weight, glycosylated hemoglobin, fasting glucose and lipid profile - checked before taking Varenicline, and compared 1, 3 and 5 years after treatment.

Results:
At the end of the study period, 1569 patients continued smoking and 802 quit smoking. The five- year follow up shows a significant difference in weight gain between the two groups. Those who continued smoking showed no weight gain, while quitters gained an average of 3.3 kg ($p<0.001$). The lipid profile of those who quit smoking improved.
The risk of developing diabetes was higher in quitters - after five years, 6.6% of smokers developed diabetes and 7.5% of quitters. Among quitters who gained more than 5 kg, 16% were diagnosed with diabetes.

Conclusions:
Smoking cessation associated with weight gain of over 5 kg, was found with increased risk for developing diabetes. Several studies concur that the beneficial effect of smoking cessation on cardiovascular risk is greater than the risk of gaining weight. Nonetheless, this findings emphasize the importance of monitoring weight gain and glucose levels among patients who quit smoking.

Points for discussion:
Interestingly, one third of quitters did not gain weight, and one out of 5 actually lost weight. This could be encouraging to smokers who want to quit but are concerned about weight gain. Further research of this group could help to gain insight as to why they did not gain weight, potentially benefitting future smokers who are attempting smoking cessation.

Presentation on 11/05/2019 14:00 in "Poster Session 2 - Diabetes" by Corinne Herskovizh.

Poster / Finished study

Relationship between omentin and chemerin levels and metabolic indices of obesity within one year in non-morbid overweight and obese adults

Vija Silina, Mesfin Kassaye Tessma, Jelena Danilenko, Silva Senkane, Guntis Bahs

Riga Stradins University, LV1057 Riga, Latvia. E-mail: vija.silina@gmail.com

Keywords: omentin, chemerin, overweight, obesity

Background:
Overweight is a condition that could lead to both diabetes and cardiovascular diseases. About half of EU adult population is owerweight, including 16% being obese (21% in Latvia). Correlation of serum chemerin and omentin with indices of insulin resistance and lipids has been described, however, information on association between changes in these parameters is scarce.

Research questions:
To examine relationship between changes in chemerin and omentin levels with changes of insulin resistance and lipid levels in clinically healthy overweight and obese individuals within a year.

Method:
We used data from our randomised controlled study with 123 clinically healthy individuals with a BMI above 25 m2/kg in the age group of 30 to 45. All participants received a consultation for lifestyle changes to support weight loss. All group showed slight weight and waist circumference decrease after 1 year. Biochemical parameters (lipids, fasting glucose, insulin) and cytokines (omentin, chemerin) were assessed at baseline and after 1 year.

Results:
We found correlation between changes in chemerin and insulin (rs=0.21; p=0.019). There was a positive correlation of TG/HDL-C ratio changes with chemerin changes (rs=0.18; p=0.047) and negative with omentin changes (rs=-0.21; p=0.018).
Multiple linear regression revealed significant relationship in chemerin changes when insulin (B=0.6; 95%CI 0.1, 1.0; p=0.016) or TG/HDL-C ratio (B=3.6; 95%CI 0.3, 7.0; p=0.035) differences are included in the model while controlling for age and gender.
For omentin changes only gender stayed as predictor of weight (B=22.8; 95%CI 7.3, 38.0; p=0.004), insulin (B=23.1; 95%CI 7.7, 38.4; p=0.004) and TG/HDL-C ratio (B=23.1; 95%CI 7.9, 38.2; p=0.003) changes, when adjusted by age.

Conclusions:
Results imply that chemerin changes are associated with changes in insulin and some lipids. Male gender rather than changes insulin and lipids is associated with omentin changes.

Points for discussion:
The role of chemerin and omentin in early selection and monitoring overweight individuals to prevent diabetes and cardiovascular disease is still ambiguous

Presentation on 11/05/2019 14:00 in "Poster Session 2 - Diabetes" by Vija Silina.

Poster / Ongoing study no results yet

Screening of Diabetic Retinopathy in Southwest Finland

Merja Laine

University of Turku, 20014 Turku, Finland. E-mail: merja.laine@utu.fi

Keywords: Diabetes, Retinopathy

Background:
Approximately 500 000 people suffer from diabetes in Finland, a number which is predicted to increase within the next decades. Good treatment of diabetes decreases the risk of diabetic retinopathy. The goals of the treatment are adequate glucose balance, blood pressure and prevention of metabolic syndrome. Every patient with diabetes should regularly be screened for diabetic retinopathy. Timely and efficient treatment of retinopathy significantly decreases the risk of visual impairment.
Care chain for diabetic retinopathy was agreed in Southwest Finland in 2006. A centralized archive for fundus photographs was created in Turku University Hospital. In Southwest Finland there are 15 health centres organizing screening for diabetic retinopathy. The photographs and information on glucose balance, hypertension and duration of diabetes have been stored in the same archive.

Research questions:
What is the coverage of retinopathy screening in patients with diabetes and what is the incidence of retinopathy in them? What is the glycaemic balance in patients with diabetes? What is the relationship between the illness time, glycaemic balance, hypertension and the established retinopathy?

Method:
Imaging service is organized by 2M-IT corporation. The photographs and additional patient data are sent electronically to an ophthalmologist and stored in the archive of Turku University Hospital. The ophthalmologist evaluates the photographs and gives an opinion and instructions for further treatment. The statements of the ophthalmologist are stored in the archive and sent electronically to the doctors in the health centres and forwarded to the patients. The data can be compared regionally and longitudinally from 2006 to 2018. Statistical analyses include regression, clustering and time series analysis.

Results:
No results yet.

Conclusions:
The results of this study will provide information whether retinopathy screening is carried out equally in the whole region of Southwest Finland and how the improved glycaemic balance affects the incidence of retinopathy regionally and also over time.

Points for discussion:
Are there differences in the incidence of diabetic retinopathy and glycaemic control in different health centres?

The screening of diabetic retinopathy in Southwest Finland differs from that carried out elsewhere in Finland, because it is centralized and an ophthalmologist evaluates all photographs. Is the coverage and quality better?

Whether the risk of visual impairment has decreased?

Presentation on 11/05/2019 14:00 in "Poster Session 2 - Diabetes" by Merja Laine.

Poster / Finished study

Vulnerable and diabetes patients' perspectives on the advantages of patient education in primary care centre: a qualitative study in France

Emmanuel Allory, Hélène Lucas, Candan Kendir, Laure Fiquet

Family Department of Rennes, 35043 RENNES, France. E-mail: emmanuel.allory@univ-rennes1.fr

Keywords: patient education as topic, vulnerable population, primary health care, diabetes mellitus

Background:
Primary care has a main role in management of diabetes mellitus (DM) type 2, including prevention of complications which are more prevalent among vulnerable population. Patient Education (PE) provides training to patients for self-management of the chronic disease. Mostly realized in hospitals, attendance to PE can be low for vulnerable population, due to their low mobility in the society. Hence, a PE program in the primary care centre in a deprived are was performed.

Research questions:
To explore the perspectives of type 2 DM patients on the advantages of PE realized in the primary care in a deprived area.

Method:
A qualitative study, with individual interviews, was performed with 19 type 2 DM patients who attended to PE sessions in 2017 in primary care. Thematic analysis was used to analyse the data.

Results:
Among patients, geographical proximity of primary care centre was an important component that facilitate access to PE sessions. Also, information of the program was spreading better by professionals, with an easier access to the information for patients, permitting a wide recruitment. The relationship of the patients with the professionals was a motivation to participate. Finally, exchanging with other patients from the same district helped them to create new social relationships.

Conclusions:
Realising PE in primary care help patients in access and attendance. Primary care teams should be encouraged and supported by policy-makers and health legislators to develop PE in their districts and improving care of patients with chronic disease.

Points for discussion:
Do you have patient eduction program in your own country in primary care?

What are advantages and disadvantages of it?

How can PE in primary care improve the health care access of individuals?

Presentation on 11/05/2019 14:00 in "Poster Session 2 - Diabetes" by Emmanuel Allory.

Poster / Ongoing study no results yet

Adolescent Depression Associated With Parental Depression: Screening, Prevalence and Secondary Prevention From the AdoDesP Survey (Adolescent Depressed Parents on Primary Care): Research

Sophie Lalande, Florian Stephan, Delphine Le Goff, Michele Odorico, Benoit Chiron, Jérémy Derriennic, Patrice Nabbe, Guillaume Bronsard, Jean Yves Le Reste

University de Bretagne Occidentale, Department General Practice, 29200 Brest, France. E-mail: lalande_sophie@yahoo.fr

Keywords: depression, adolescent, general population, primary care

Background:
Identifying and preventing depression in adolescents is difficult. A parental depression is a recognised risk factor for adolescents' depression. 20% of adults' patients in primary care have a depression. Primary care could, then promote indirect access for identifying adolescent depression at an early stage from the meeting of depressed parents. This could overwhelm problems of coordination between primary care and mental health care, which can disrupt screening and management of adolescent depression.

Research questions:
Does the screening and secondary prevention of adolescent depression found while using their depressed parents in primary care using a coordinated mental health care pathway more efficient than screening and secondary prevention in regular care

Method:
A randomized, cluster controlled trial. General Practitioners in Finistere are recruited to identify depressive parents according to the Hopkins Symptom Checklist-25(HSCL 25). Their teenagers are then screened by a scale of depression: Adolescent Depression Rating Scale (ADRS). If the depression is proven, the teenager will be oriented, according to a randomization towards coordinated or routine care. A follow-up of the depression will be carried out at 6 months and 12 months, with the Children's Depression Inventory (CDI).

Results:
no result yet

Points for discussion:
How are depressive adolescents in your countries taken care of?

How is care coordinated with psychiatry in your countries?

What do you think about the AdoDesP method?

Presentation on 11/05/2019 14:00 in "Poster Session 3 - Mental Health" by Florian Stephan.

Poster / Finished study

Atopic Eczema in Adulthood and Risk of Depression and Anxiety: A Population-Based Cohort Study

Yochai Schonmann, Kathryn E. Mansfield, Joseph H. Hayes, Katrina Abuabara, Amanda Roberts, Liam Smeeth, Sinéad M. Langan

Clalit Health Services, Department of Family Medicine, Rabin Medical Center, 6230706 Tel Aviv, Israel. E-mail: yochais@gmail.com

Keywords: atopic eczema, atopic dermatitis, depression, anxiety, population-based

Background:
Atopic eczema is a common and debilitating condition associated with depression and anxiety, but the nature of this association remains unclear.

Research questions:
To explore the temporal relationship between atopic eczema and new diagnoses of depression/anxiety.

Method:
A matched cohort study using routinely-collected electronic records from the UK Clinical Practice Research Datalink, linked-hospital admissions data. We identified adults with atopic eczema (1998-2016) using a validated algorithm, and up to five individuals without atopic eczema matched on date of diagnosis, age, sex and general practice. We estimated the hazard ratio (HR) for new depression/anxiety using stratified Cox regression to account for age, sex, calendar period, Index of Multiple Deprivation, glucocorticoid treatment, obesity, smoking and harmful alcohol use.

Results:
We identified 526,808 adults with atopic eczema who were matched to 2,569,030 without. Atopic eczema was associated with increased incidence of new depression (HR 1.14; 99% confidence interval [CI] 1.12-1.16), and anxiety (HR 1.17; 99% CI 1.14-1.19). We observed a stronger effect of atopic eczema on depression with increasing atopic eczema severity (HR [99% CI] compared to no atopic eczema: mild 1.10 [1.08-1.13]; moderate 1.19 [1.15-1.23]; severe 1.26 [1.17-1.37]). A dose-response association, however, was less apparent for new anxiety diagnosis (HR [99% CI] compared to no atopic eczema: mild 1.14 [1.11-1.18]; moderate 1.21 [1.17-1.26]; severe 1.15; [1.05-1.25]).

Conclusions:
Adults with atopic eczema are more likely to develop new depression and anxiety. For depression, we observed a dose-response relationship with atopic eczema severity

Presentation on 11/05/2019 14:00 in "Poster Session 3 - Mental Health" by Yochai Schonmann.

Poster / Finished study

Can we apply light therapy in chronic insomnia? a systematic literature review and meta-analysis

Juliette Chambe, Elise Fraih, Eve Reynaud, Audrey Wieser, Patrice Bourgin

Faculté de médecine de Strasbourg, General practice, 67200 Strasbourg, France. E-mail: juliette.chambe@unistra.fr

Keywords: insomnia, light therapy

Background:
GPs and patients expect alternative therapeutics in the management of chronic insomnia. Light therapy not only influences the synchronicity of the circadian system in a 24-hour day, it also directly contributes to the regulation of sleep, wakefulness, mood, and cognitive and mnesic processes.

Research questions:
Our aim was to identify possible practical applications of bright light therapy in chronic insomnia, focusing on the light parameters (time of day, intensity, duration, spectrum) to be chosen according to the type of insomnia.

Method:
We conducted a systematic literature review according PRISMA criteria using the databases Medline, PsycInfo and Web Of Science. Eligibility of studies were based on population criteria, adults suffering from insomnia, and intervention with at least light therapy.

Results:
Twenty-three studies with a total of 685 participants were included, of which 9 had a low, 10 an intermediate, and only 4 a high level of proof. Characterization of participants' insomnia was mostly incomplete, and a majority of studies lacked light parameters. Objective sleep data showed an improvement in 10 studies (either sleep latency, sleep efficiency, WASO or several). All except 3 studies presented an improvement in at least one subjective measure. A shortened total sleep time was observed in 2 studies, with BLT was applied in the evening. Phase shift was observed as expected. Compliance for BLT was rarely clearly reported. Evening red light seemed to induce sleep when intensity was more than 150 lux. Meta-analysis of before-after comparison showed an improvement of sleep latency in the morning exposure to light, and reduced WASO regardless of the time of exposure.

Conclusions:
Bright light therapy could be an interesting treatment for chronic insomnia, with few side effects and the only treatment of insomnia with an alerting diurnal effect. Important factors, such as the adequate timing, light intensity and target insomniac population still need to be determined.

Presentation on 11/05/2019 14:00 in "Poster Session 3 - Mental Health" by Juliette Chambe.

Poster / Ongoing study with preliminary results

Multimorbidity among Finnish university students, especially among students suffering from mental illness according to the Finnish Student Health Survey in year 2016

Tiina Vuorio, Kristina Kunttu

Finnish Student Health Service, 20900 Turku, Finland. E-mail: tjtikk@utu.fi

Keywords: Multimorbidity, student health care, mental illness, mental health, somatic illness

Background:
The research about the incidence of multimorbidity among young adults is sparse. Multimorbidity is known to cause a risk for mental disorders. An increase of mental disorders among Finnish university students has been reported previously.

Research questions:
The aim of this study is to describe the state of multimorbidity among Finnish University students in Finland in 2016. The specific interest is focused on the students having mental illness.

Method:
The study is a cross-sectional cohort study. The material derives from the Finnish Student Health Survey conducted in 2016. The survey is a nationwide survey conducted every four years since the year 2000. In 2016, the sample included 5004 students from the universities of applied sciences and 4996 students from academic universities.
To evaluate the state of multimorbidity, the respondents were asked accordingly: “Do you suffer from a chronic, long-term or frequently recurring illness, handicap or injury diagnosed by a physician, dentist or psychologist, which has shown symptoms or required treatment over the past 12 months?” The questionnaire included 29 disease category answer options. Multimorbidity was defined as having at least two disorders.

Results:
There were altogether 3110 students, who returned the questionnaires. 983 (32%) of these students suffered from at least two chronic conditions. 490 (16%) of the respondents had at least one mental illness and 1844 (59%) somatic illness. From the students having at least one mental illness, 417 (85%) were categorized as being multimorbid, while the same number among students having a physical illness was 965 (52%).

Conclusions:
This study describes the state of multimorbidity among Finnish University students in 2016. The majority of students suffering from mental illness were catogorized as being multimorbid. Multimorbidity is needed to take into consideration when organizing health care services for university students.

Points for discussion:
What is the validity of these results? What kind of bias could have interfered with these results?

What could be the mechanisms behind this phenomenon of students suffering from mental illness being multimorbid?

What could be the clinical relevation of these results?

Presentation on 11/05/2019 14:00 in "Poster Session 3 - Mental Health" by Tiina Vuorio.

Poster / Almost finished study

Well-being and depression in International Medical Students

Cindy Heaster, Sandra Gintere, Līva Mača

Riga Stradins University, LV-1007 Rīga, Latvia. E-mail: cindyheaster@gmail.com

Keywords: International students, Depression, PHQ-9, Warwick-Edinburgh, Well-being

Background:
Depression contributes greatly to morbidity in Primary Care, affecting 5-10% of patients presenting to their GP. The incidence of depression in medical students is known to be higher than that of the general population. Stressful life events affect well-being, may cause an increase in depressive symptoms and even precipitate the onset of major depression. Moving abroad to participate in a rigorous study programme is a stressful life event experienced by all international medical students. The aim of this study is to examine well-being and determine the prevalence of depression in international medical students at Riga Stradins University in Latvia.

Research questions:
What is the prevalence of depression in international medical students? How is this related to well-being?

Method:
Over 230 international medical students completed a paper version of a survey which included The Patient Health Questionnaire - 9 (PHQ-9) and the Warwick-Edinburgh Mental Well-being Scale (WEMWBS). Data was processed using IMB SPSS Statistics 21.00. This is an ongoing study.

Results:
The PHQ-9 revealed the prevalence of moderately severe or severe depression warranting treatment was 5.6% and 2.6% respectively. When moderate depression scores of 10 or more points on the PHQ-9 were included, the overall prevalence of depression was found to be 32%. High depression scores were significantly negatively correlated with well being scores.

Conclusions:
The overall prevalence of depression in international medical students is very high. Universities accepting international students should ensure that they have structures in place in order to provide accessible and effective care for their students. Primary care physicians treating international students should consider screening them for depression.

Points for discussion:
What programmes are in place in your home countries to support students studying abroad?

What are the most effective programmes to improve mental health in medical students?

Presentation on 11/05/2019 14:00 in "Poster Session 3 - Mental Health" by Cindy Heaster.

Poster / Finished study

Assesment of the needs and expectations of inhabitants of İstanbul - Pendik county from primary care services.

Tevfik Tanju Yilmazer, Emre Yaris, Pemra C. Unalan, Ayşe Çaylan

Izmir Tepecik Training Research Hospital, Family Medicine, Istanbul Marmara University Family Medicine Department, Trakya University Family Medicine Department, 35183 İzmir, Turkey. E-mail: tjyilmazer@hotmail.com

Keywords: Primary care, satisfaction

Background:
Family Health Centers in Turkey are the mainstones of primary care services and many satisfaction surveys have been carried out at these centers. Yet the necessities and expectations of all inhabitants on this subject is something of general concern.

Research questions:
What are the needs and expectations of the inhabitants getting health service in primary care?

Method:
The survey was given to 182 patients in 21 streets belonging to 10 Family Health centers that were chosen randomly in Pendik, Istanbul. The survey consists of three parts. The first which is formed by demographic data including; age, gender, education level, the number of residents at home, total family income. The second part consists of a revised form of “EUROPEP Family Medicine Satisfaction Scale” with four subject headings: “Medical doctor- patient relation”, “Health service”, “Information and reinforcement” and “easy accessibility”.

Results:
“Making one feel that there is plenty of time during the consultation" was the number one priority with 29.2%. Meanwhile “Being able to tell about all of the problems" was also a front runner with 24.4 %. Among male participants, “Listening to you” was the highest with 27 %.
“Offering fast service for emergency situations” statement is the highest preference with 29.1 %.
"Having a spacious and clean center" was highest condition expected (94.5%) followed by the statement “the centers should be in walking distance" (93.9%).

Conclusions:
Offering a rapid service in emergency situations was of main concern also with educational and informative lectures being given at these centers. So an emphasis should be given to both service and training wise for emergency situations and to community health education as well.

Points for discussion:
What can be done to improve the satisfaction received from health centers bot locally and countrywide?

Should we find other ways of measuring productivity other than/ in addition to patient satisfaction?

Presentation on 11/05/2019 14:00 in "Poster Session 4 - Patient Care" by Ayşe Çaylan.

Poster / Study Proposal / Idea

Attitudes and knowledge of family physicians regarding patients with multimorbidity in the Republic of Croatia – Pilot Study

Marion Tomicic, Maja Vrebalov Cindro, Sanja Zuzic Furlan, Marko Rada

University of Split School of Medicine, Department of Family Medicine, 21000 Split, Croatia. E-mail: marion.tomicic@mefst.hr

Keywords: multimorbidity, polypharmacy, drug interaction, chronic therapy audit

Background:
Multimorbidity is defined as any combination of chronic disease with at least one additional condition, bio-psycho-social factor or somatic risk factor. Care for such patients requires special skills and knowledge, as well as a proactive, individualized approach in order to improve their quality of life and reduce overtreatment.

Research questions:
To investigate whether the length of service in family medicine (FM), the number of elderly patients (over 65 years) in care, residency in FM or specialty in family medicine (FMS) correlate with the physicians knowledge about adequate care for patients with multimorbidity.

Method:
A questionnaire (21 questions about the attitudes and knowledge of family physicians about multimorbidity management) was available online from December 1st to December 21st, 2018 from social networks and sent to the family medicine practitioners' e-mail addresses. The answers were statistically processed with SPSS program.

Results:
Out of 174 respondents, 137 (78.7%) were female and 37 (21.3%) were male. Ninety two of them all (52.9%) were FMS, 55 (31.6%) were without specialization (FM), 20 (11.5%) were FM residents, and 7 (4%) were complementary specialists (e.g. school medicine). Multimorbidity was correctly defined by 73 (49.6%) of the respondents, significantly more among FMS compared to others ($\chi 2=7.417$, $p=0.025$). Years of service in FM (over 20 years) were significantly associated with frequent checking for potential drug interactions ($\chi 2=12.92$, $P=0.005$) and treatment revisions in patients receiving two or more drugs ($\chi 2=11.71$, $P=0.008$). Higher number of elderly patients in care did not increase the checking rate for potential interactions ($\chi 2=1.99$, $P=0.574$).

Conclusions:
Management of multimorbidity pertains to the domain of family medicine. Specialization in family medicine and clinical experience markedly improve the understanding and treatment of multimorbidity, particularly concerning rational therapy (e.g. awareness of interactions, control of polypharmacy).

Points for discussion:
Study design, questionnaire, online research

Presentation on 11/05/2019 14:00 in "Poster Session 4 - Patient Care" by Marko Rada.

Poster / Ongoing study with preliminary results

Educating Nursing Home Staff to Improve Residents' End-of-life Care and to Reduce Burdensom Hospitalisations - Baseline Findings and Feasibility of a Randomised, Controlled Trial

Pauli Lamppu, Harriet Finne-Soveri, Hannu Kautiainen, Marja-Liisa Laakkonen, Jouko Laurila, Kaisu Pitkälä

Helsinki University, 00270 Helsinki, Finland. E-mail: Pauli.lamppu@Gmail.com

Keywords: Nursing home, end-of-life, hospitalization, Quality-of-life, palliative care

Background:
Developing end-of-life care in Nursing Homes (NHs) has become a topic of growing interest. It has been shown that hospitalizations of NH residents, most with severe cognitive impairment, provide limited health benefits, are burdensome and present risks for serious complications.

Research questions:
In this cluster-randomized educational trial we examine whether staff education in palliative care will 1) improve the residents' health-related quality of life (HRQoL), 2) reduce unnecessary hospitalizations compared to control group in usual care. Secondary endpoints include symptoms and proxies' satisfaction. Baseline findings and feasibility are presented here.

Method:
We recruited 340 NH residents in in Helsinki. In the wards of intervention arm, staff was given a four-afternoon educational intervention which included basics on good palliative care, advance care planning, good symptom management, communication skills, tailoring care at the end-of-life, supporting relatives and challenging situations in end-of-life care. Sessions were based on constructive learning theory and strongly relied on resident-cases presented by instructors and participants. At baseline, we gathered demographics, diagnoses, previous hospital visits, MMSE, physical functioning and MNA. Symptoms, 15D and PWB to assess HRQoL and proxies' satisfaction with care are all assessed at baseline and at 6 and 12 months from intervention.

Results:
Mean age of participants was 84y, 76% were females. The intervention and control groups did not differ in respect to demographics, terminal diseases, comorbidities, nutritional status, MMSE, proxies' satisfaction or medications. There were differences between the two groups in advance planning, symptoms, and physical functioning. 102/180 staff members completed the educational intervention. The sessions had lively discussions and the participants gave an overall score of 4.6/5 for the education.

Conclusions:
We have randomized nursing home wards in this palliative care education trial with success and completed staff education with very positive feedback.

Presentation on 11/05/2019 14:00 in "Poster Session 4 - Patient Care" by Pauli Lamppu.

Poster / Ongoing study with preliminary results

Preliminary data of the CORap study (Gut Feelings Prognostic Value in Primary Care)

Bernardino Oliva-Fanlo, Sebastià March, David Medina, Gaspar Tamborero, María Martín-Rabadán, Erik Stolper, Magdalena Esteva

IBSALUT, CS Trencadors, 07609 Llucmajor, Spain. E-mail: bolivaf@gmail.com

Keywords: Gut feelings, serious diseases, cancer

Background:
GPs have Gut Feelings (GF) during patient visits: a sense of reassurance (SR) when the GP feels that everything about a patient fits or a sense of alarm (SA) when the GP is concerned about a possible adverse outcome.
We don't know the prevalence of GF in GPs consultations, how these GFs affect GPs' decisions, or their prognostic value regarding serious diseases or cancer.

Research questions:
Prevalence of GF in the patients contacts with GPs
GF relationship with patient (sociodemographic and clinical) and GP characteristics (sociodemographic and professional)
Validity of GF to predict severe disease and cancer.
GF relationship with request of tests, investigations, and referrals.

Method:
Prospective observational, study of diagnosis validity.
Patients with a new reason for encounter
48 work days, 26 GPs
Existence of SA/SR determined using the GFQuestionnaire.
GPs' variables: age, gender, trainer, rural/urban, years of experience, language
Patients' variables: age, gender, country, language, type of visit, red flag symptoms
Follow-up: Incident diagnosis of severe disease and cancer, requests (investigations, tests, referrals, visits)

Results:
287 patients: 80 SA, 191 SR, 6 undetermined
Serious diagnosis: 15 2mo later, 32 6mo later
GF prevalence: 281/287: 97.91%
No differences in prevalence of SA/SR regarding: gender (GP,patient), country (patient), language (patient), patient-GP know each other before, language (consultation), type of visit, environment, age (GP)
More SA: longer visits, some symptoms (anemia, anorexy, asthenia, weight loss), having at least one red flag symptom, ex-GP trainers.
6mo after SA patients have: more GP visits, lab tests, referrals to specialists, visits to the hospital E.R., primary care procedures (drug administration, wound healing, vital signs checked…)
PPV of SR: 98.49% 2 months later, 94.47% 6 months later
PPV of SA: 14.63% 2 months later, 24.39& 6 months later

Conclusions:
Bigger sample size is needed
High prevalence of GF, with little differences regarding studied variables (sample size issue?)
Good PPV

Points for discussion:
Can GFs help GPs diagnosing rare events like serious diseases and cancer?

Can GFs help GPs to pace their decisions, avoiding unnecessary tests for healthy people, and speeding diagnosis for ill people?

Presentation on 11/05/2019 14:00 in "Poster Session 4 - Patient Care" by Magdalena Esteva.

Poster / Finished study

Self Reported Adherence in Primary Care: A Systematic Review

Delphine Rubé, Cindy Rabot

DUMG Tours, Faculté de Médecine, 18600 Sancoins, France. E-mail: delphine.rube@wanadoo.fr

Keywords: Patient compliance, primary health care, general practice, surveys and questionnaires, scales, weights and measures

Background:
About 50 % of patients adhere to chronic therapy, in France. Improving adherence should improved their care. Identify the patient's difficulties in taking medication is complex for the physician, because there is no gold standard for measuring adherence to medications. How the general practitioner in his practice can identify patient compliance ?

Research questions:
Analyse studies that developp or valid scales used to estimate adherence in primary care

Method:
A systematic review of the literature from Pubmed, The Cochrane Library and PsycINFO databases. The search terms used were the Mesh Terms (or adapted to the database's vocabulary) : questionnaire, compliance and primary care. All articles were retained whatever the language of writing. Selection criteria were:
- Assessment of the development, validation or reliability of one or more compliance scales
- Taking place in primary care
One reviewer screened title whose term is adherence then abstracts and full text.
Only articles evaluating the development, validity or reliability of a primary care adherence rating scale were included in analysis.

Results:
1022 articles were selected. 18 articles was included. 17 adherence scale were identified in primary care. Most of which targeted a single pathology, mostly hypertension. The most cited scale is the MMAS Morisky Medication Adherence Scale. 3 scales were developed for patients with multiple chronic diseases. One scale for patients more than 65 years, Strathclyde Compliance Risk Assessment Tool (SCRAT), and two scales for adult patients whatever is their age : instrument developed by Sidoriewicz and al. and the DAMS, Diagnostic Adherence to Medication Scale.

Conclusions:
Two scales developed and validated in primary care to assess patient adherence with multiple chronic diseases: the DAMS and the instrument developed by Sidorkiewicz and al. A simple, reliable, reproducible primary care scale would assess the impact of actions developed to improve adherence: motivational interviewing, patient therapeutic education, ASALÉE protocol.

Presentation on 11/05/2019 14:00 in "Poster Session 4 - Patient Care" by Delphine Rubé.

Poster / Ongoing study with preliminary results

Differences in SCORE screening parameters between males and females in Latvia

Līva Mača, Sandra Gintere, Taisija Žeņiļenko, Cindy Heaster, Līga Esta

Rīga Stradiņš University, Rīga, Latvia. E-mail: liva.much@gmail.com

Keywords: SCORE, cardiovascular risk, screening

Background:
According to World Health organisation, Cardiovascular diseases are the leading cause of death globally. Systematic Coronary Risk Evaluation (SCORE) system has been developed in order to assess the risk of it in the next 10 years.

Research questions:
How does the SCORE screening parameters differ between sexes?
Do the doctors see any advantages to this screening program?
What problems have the doctors discovered using this screening program?

Method:
Patients in target age groups were selected and SCORE protocol issued by health ministry was used to determine the cardiovascular disease risk. The data collected has been analyzed using IBM SPSS Statistics 23 (Kolmogorov-Smirnov Test (K), Mann-Whitney U (M), Pearson Chi-Square (C), Fisher's exact test (F), and $p<0.05$ was considered as statistically significant).

Results:
This is an ongoing study. 22 males and 31 females have been included in this study. There were no differences in age distribution (K, p=0,991) and smoking status (C, p=0,086) for both sexes. Statistically significant difference was found for systolic blood pressure (M, p=0,032) with mean of 128,32 (SD=18,82) mmHg for women and 141,29 (SD=22,38) mmHg for men. In this study body mass index (M, p=0,313), waist circumference (M, p=0,055), total cholesterol (M, p=0,732) and fasting glucose levels (M, p=0,493) did not differ between genders. Although statistically significant difference was found in overall SCORE results (M, p=0,001) with lower risk for female subjects (1,37% (SD=1,75%) versus 4,63% (SD=5,28%)), only the low risk group showed difference in gender distribution (8 women versus 0 men; F, p=0,015).

Conclusions:
SCORE screening includes the assessment of such parameters as age, systolic blood pressure, total cholesterol and fasting glucose levels, as well as body mass index, waist circumference and smoking status. In this study differences between the sexes were found only for systolic blood pressure and total SCORE result with lower values for female subjects in both parameters.

Points for discussion:
The efficiency of using SCORE screening in general practitioners office.

The advantages and disadvantages of SCORE screening protocol issued by Latvian Health Ministry.

Presentation on 11/05/2019 14:00 in "Poster Session 5 - Miscellaneous" by Līva Mača.

Poster / Almost finished study

Effect of time elapsed from the onset of heart failure decompensation symptoms to primary care consultation

Miguel Angel Muñoz, Jose-Maria Verdu-Rotellar, Lea Gril, Radost Assenova, Peter Torsza, Durdica Lazic, Heidrun Lingner, Liam Glynn, Jacopo Demurtas, Helene Vaillant-Roussell, Beata Borgstrom, Melida Hasanagic, Rosa Abellana

HEFESTOS Study Group, 08007 Barcelona, Spain. E-mail: mamunoz.bcn.ics@gencat.cat

Keywords: heart failure; decompensation; primary care

Background:
Early identification of Heart Failure (HF) decompensation is crucial in order to properly treat a potential sever clinical situation and avoid hospitalizations and death.

Research questions:
Can the delay in consulting to General practitioner affect the prognosis of heart failure patients?

Method:
HEFESTOS is an European cohort study aimed at knowing the main triggers and the prognosis of some factors related to the heart failure decompensations attended in primary care.
We collected sociodemographic and clinical variables as well as time elapsed since the onset of the symptoms perceived by the patient. The outcome for this analysis was the hospitalization and the length of stay in the hospital as a consequence of a decompensation

Results:
We analyzed a total of 515 patients with HF. Mean age was 84.0 [78.0; 87.0] years old and 56.1% were women. Median of time elapsed since the onset of symptoms was 7.00 [3.00; 12.0] days. A total of 159 patients were hospitalized during the first month after the decompensation. We did not find statistical relationship between the delay in the consultation with the primary health care and the hospitalization ($p=0.603$) or the length of hospital stay ($r_{Spearman}=0.05$, $p:0.5$)

Conclusions:
Patients with HF wait one week to consult with their general practitioner. It could not be established any relationship between the time elapsed since the onset of the symptoms and the consultation with the GP and the hospitalization or the length of stay in the hospital.

Points for discussion:
It is possible that more severe patients go directly to the hospital .

Presentation on 11/05/2019 14:00 in "Poster Session 5 - Miscellaneous" by Miguel Angel Muñoz.

Poster / Almost finished study

Multimorbid patient quality of life assessment and the factors affecting it.

Andris Pūce, Sabīne Pūce, Elīna Skuja, Ilze Skuja

Rīga Stradiņš University, LV-3101 Tukums, Latvia. E-mail: andris.pucejr@gmail.com

Keywords: Multimorbidity; Depression; Quality of life

Background:
In general practice 65-75% of appointments are compiled by people who have two or more chronic illnesses - multimorbid patients. Even though the number of multimorbid patients is substantial, the number of scientific studies that are focused on examining problems and disease influencing factors associated with these patients is small.

Research questions:
The aim of the study is to evaluate the subjective assessment of the quality of life of multimorbid patients, as well as to study possible factors affecting quality of life.

Method:
The study included patients aged 40 to 80 in the GP Practice in Latvia. Patients were divided into study and control group (with none or one disease). All participants filled out a questionnaire created by the authors, a short form of quality of life enjoyment and satisfaction questionnaire (Q-LES-Q-SF) and a short depression assessment questionnaire (PHQ-9).

Results:
There were 118 patients with the mean age of 63.60 years (SD 11.91). Q-LES-Q-SF questionnaire score was higher for the control group (52.77, SD 7.73) compared to the study group (46.62, SD 7.72, $p<0.05$). Positive Spearman's correlation between patient age and number of illnesses was obtained (0.47, $p<0.05$). No correlation was found between patient age and Q-LES-Q-SF questionnaire results. Patients with controlled bronchial asthma had a higher score (46.50) in Q-LES-Q-SF questionnaire compared to patients with non-controlled bronchial asthma (38.60). Patients who had no signs of depression in Q-LES-Q-SF questionnaire had the score of 52.84 points (SD 7.53), patients with signs of moderate depression had 41.44 points (SD 6.19, $p<0.05$).

Conclusions:
Quality of life scores were lower in multimorbid patients, compared to patients with one or none disease. These results were affected by how well the diseases were managed, their current level of pain and symptoms of possible depression.

Presentation on 11/05/2019 14:00 in "Poster Session 5 - Miscellaneous" by Andris Pūce.

Poster / Ongoing study with preliminary results

Quantitative and thematic analysis of gut feelings' text notes

Bernardino Oliva-Fanlo, Sebastià March, Cristina Gadea, Erik Stolper, Magdalena Esteva

IBSALUT, CS Trencadors, 07609 Llucmajor, Spain. E-mail: bolivaf@gmail.com

Keywords: Gut feelings, thematic analysis, text notes

Background:
GPs use gut feelings (GF) during a patient visit to pace their decisions. A 'sense of alarm' (SA) means that intervention seems necessary to prevent imminent serious health problems, and a 'sense of reassurance' (SR) implies that a GP feels secure about whether and what therapy needs to be started. We don't know how these senses are captured in patient's electronic clinical records (ECR).

Research questions:
Are there differences regarding the extent of the text and the subjects treated when the physician has a SA and when the physician has a SR?

Method:
Review of text notes of 73 patients included in a broader study about GF. Presence of SA or SR was determined using the GF Questionnaire. We collected number of words used by the GPs in their annotations: complete annotation and its parts (anamnesis, examination, action plan)
Thematic analysis: Two different researchers read separately the text notes, coded the expressions used and assigned the codes to categories. They met and agreed with the codes and categories selected.

Results:
29 SA, 44 SR.
- GPs tend to use more words when having a SA than when having a SR in all the sections of text notes, although differences are bigger in anamnesis and examination.
- GPs write more details about examination and investigations requested when there is a SA.
- GPs report more data about treatment when they feel a SR.

Conclusions:
When having a SA GPs suspect possible serious consequences. So they try to gather more data from clinical interview and physical examination. Or same data are actually collected but GPs need to leave record of their actions more frequently when having a SA.
GPs with a SA tend to perform broader patient's examinations (physical and vital signs), to request more diagnostic procedures (tests, investigations or referrals), and to propose fewer treatments.

Points for discussion:
Do GPs act differently depending of their gut feelings?

Presentation on 11/05/2019 14:00 in "Poster Session 5 - Miscellaneous" by Bernardino Oliva-Fanlo.

Poster / Finished study

Violence Towards Young General Practitioners in Croatia Remain in Silence - a pilot study

Iva Jurčević, Marina Oljača Pribanić, Durdica Lazic

Health Centre Zagreb-Center, 10000 Zagreb, Croatia. E-mail: ijurcevic@yahoo.com

Keywords: Patient-doctor violence, general practitioner, primary health care, forms of aggression towards doctors

Background:
Workplace violence (WPV) towards health care staff is becoming a common problem in different health care settings worldwide. Moreover, the prevalence is 16 times higher than in other professions. How often it happened towards young doctors working as General Practitioners (GPs) at the beginning of their careers has been rarely studied.

Research questions:
To investigate the frequency and forms of WPV, experienced by the young Croatian GPs from their patients, and violence reporting pattern to the competent institutions.

Method:
The cross-sectional study was carried out on 74 GP residents, during their postgraduate study in family medicine in May 2018. A specially designed anonymous questionnaire, developed by Association of Family Physicians of South Eastern Europe, was used to investigate the prevalence and forms of WPV, the narrative description of the traumatic event itself and the process of reporting it.

Results:
The response rate was 91.9%, female 87%, the median of years working as a GP was 3,5 years. Most of the residents were working in an urban practice (63%), others in the rural and the suburban once (27%, 10%). All of GP residents experienced some sort of patients' and caregivers' violent behavior directed towards them. High-intensity violence (e.g. physical violence, sexual harassment) was experienced by 44%, middle intensity (e.g. intimidation, visual sexual harassment) by 84% while verbal violence was experienced by all residents. Only 13.2% residents reported WPV to the competent institutions. Most of GP residents reported the appearance of the new form of violence: the one over the internet.

Conclusions:
The high prevalence of all types of violence towards young Croatian doctors is worrisome, as is the fact that violent acts are seldom reported to the competent institutions. Those alarming facts could become a threat to GPs career choosing.

Points for discussion:
Is WPV an important issue in other European Countries?

How it is managed by institutions in other countries?

Importance and interest to the international research projects

Presentation on 11/05/2019 14:00 in "Poster Session 5 - Miscellaneous" by Iva Jurčević.

Poster / Finished study

Assesment of 0-24 Months Old Childrens' Mothers' Knowledge Level on Routine Vaccination Program

Tevfik Tanju Yilmazer, Handan Arli

IZMIR TEPECIK TRAINING RESEARCH HOSPITAL, FAMILY MEDICINE, 35183 IZMIR, Turkey. E-mail: tjyilmazer@hotmail.com

Keywords: childhood Immunization, vaccination, awareness

Background:
Vaccination is the most effective and reliable way to prevent infectious diseases. It can also be considered as a human right. Yet anti- vaccination is gaining importance globally. We aimed to evaluate knowledge and attitude of mothers on vaccination.

Research questions:
- What are the obstacles facing vaccination programs.

Method:
A survey, consisting of 28 questions about demographic characteristics, knowledge about vaccinations and attitudes of mothers were given to 180 mothers whose children, between 0 to 24 months, were consulted at out- patient clinics.

Results:
Ninty point six % of mothers said vaccines were necessary and 45.6% said infectious diseases would be more serious in case of non vaccination. Eighty-five % of the participants were aware about possible side effects of vaccines, 81% mentioned fever as a side effect. Their information about vaccines was obtained from a medical doctor by 61.1%,
Eighty- three point three % of the vaccines were done in family medicine clinics and 66.7% of the vaccines were given by nurses. Fifty-eight % mentioned measles as a name of a vaccination, while 3.3% diphtheria and with 3.3% whooping cough was the least frequently mentioned.
Fifty-six point one % of the mothers did not know about the extra- paid “out of routine schedule” vaccines and of those who knew 94.9% of the respondents had heard about the rotavirus vaccine. Seventy-eight point three % had not received extra- paid vaccines with 60.2% giving lack of knowledge as a reason for not having them.

Conclusions:
Majority of mothers still believe that vaccination is necessary. Some variables such as parental age, education level, occupation, income level, number of siblings affects vaccination percentage. Promoting childhood vaccination especially by the media and health professionals might increase vaccination percentage of the population.

Points for discussion:
What can be done in primary care especially in the cultural context to increase the vaccination percentage.

What can be done in primary care to overcome anti vaccination?

Presentation on 11/05/2019 14:00 in "Poster Session 6 - Pharmaceuticals and Other" by Tevfik Tanju Yilmazer.

Poster / Ongoing study with preliminary results

Focusing school doctors' health checks – early prevention of multimorbidity?

Kirsi Nikander, Elina Hermanson, Minna Kaila, Silja Kosola

University of Helsinki, Helsinki, Finland. E-mail: kirsi.nikander@iki.fi

Keywords: school health services, children, screening

Background:
School nurses check all primary school children annually in Finland. In addition, school doctors examine all children at ages 7 and 11, regardless of the children's health risks. Consequently, school doctors have insufficient time for effective care of identified problems and multidisciplinary work at all age groups. No validated method for screening children for doctors' assessments exists.

Research questions:
The aims of this study are 1) to evaluate the benefits of school doctors' routine health checks at ages 7 and 11 and 2) to assess the reliability and validity of our study questionnaire–based screening method.

Method:
We conducted a prospective, multicenter observational study in four urban municipalities in Finland. We recruited a random sample of 1013 children of said ages from 21 primary schools in 2017–2018. Parents, nurses and teachers filled a study questionnaire to identify any concerns about each child. Doctors, blinded to the questionnaires, checked all children and completed an electronic report including advices, referrals and recalls. The doctors, parents and children assessed the benefit of the appointments. We assessed the study questionnaires to determine the need for a doctor's evaluation and compared the need to the benefit gained.

Results:
The participation rate was 75%. The doctors considered 41% and the parents 83% of the health checks beneficial. In total, 210 out of the 1013 children (21%) had no determined need for an appointment, although the doctor considered examining 42 (20%) of them as beneficial. Of those 42 children, only a few had problems that actually required doctor's expertise to be recognized.

Conclusions:
At least one fifth of school doctors' routine health checks may be omitted using the study questionnaires. We will analyze further all the health checks that doctors, parents and children considered beneficial.

Points for discussion:
How is the labor divided in school health services in your country?

How would you increase the timeliness of health checks by school doctors and the effectiveness of school doctors' work?

Presentation on 11/05/2019 14:00 in "Poster Session 6 - Pharmaceuticals and Other" by Kirsi Nikander.

Poster / Ongoing study with preliminary results

Inhaled corticosteroid use among adult Finnish asthmatics

Päivi Saukkosalmi, Markku Sumanen

Tampere University, Tampere, Finland. E-mail: paivi.saukkosalmi@tuni.fi

Keywords: asthma, medication, adherence

Background:
In Finland asthma is usually diagnosed and treated within the primary care setting by general practitioners at municipal health care centers and doctors working at occupational health services. The basis of medical treatment of asthma are inhaled corticosteroids. To our knowledge, register-based studies about asthma medication use in Finland are scarce.

Research questions:
This is descriptive study about inhaled corticosteroid use among adults with asthma.

Method:
Study population origins from The Health and Social Support Study 2012, which is part of a nationwide cohort study among adult Finnish population. The participants were inquired whether a doctor had told them they have or have had asthma. The asthma group comprised 1141 individuals which equals 8.9% of all respondents and thus is similar to the previous knowledge of asthma prevalence in Finland. Registers of The Finnish Social Insurance Institution (SII) were used to study filled prescriptions during 2011. We checked from the registers individuals who had purchased inhaled corticosteroids (ICS) alone or combined to long-acting beta2-agonists (LABA). The proportion of days covered (PDC) by ICS during 2011 was calculated based on the ATC/DDD system of WHO and information on the prescriptions i.e. name and strength of the substance, number of doses in the inhaler and number of inhalers purchased. As recommended for adherence studies, PDC 80% or more was considered good.

Results:
According to the register 674 (59%) of the asthma patients had purchased ICS in 2011. Among 21% of these patients, PDC was at least 80%. Among more than half of the asthmatics (62%) PDC was below 50%. There was no difference between genders.

Conclusions:
Regular use of inhaled corticosteroids among adult asthma patients is considerably low in Finland. Adherence to treatment should be evaluated at every patient consultation.

Presentation on 11/05/2019 14:00 in "Poster Session 6 - Pharmaceuticals and Other" by Päivi Saukkosalmi.

Poster / Ongoing study with preliminary results

Reasons of bad adherence to scientific researches among young general practitioners and its improvement

Victoria Tkachenko

Shupyk National Medical Academy of Postgraduate Education, Kiev Regional Clinical Hospital, Family Medicine Department, 04112 Kiev, Ukraine. E-mail: witk@ukr.net

Keywords: scientific researches, primary care, young general practitioners, problem resolving, improvement

Background:
General practice/family medicine is an academic and scientific discipline, with its own research, evidence base and clinical activity orientated to primary care. But the image and popularity of scientific researches in primary care are not high.

Research questions:
The aim of the study was to analyze the reasons of bad adherence to scientific researches among GPs and effectiveness of interventions for its improvement.

Method:
The survey was conducted among 28 young GPs and PhD students in family medicine about their adherence to scientific research, barriers and needs for making it more effective. The statistical analyses was provided with Excel 2007, SPSS.

Results:
Young GPs mentioned the main problem for their scientific work is lack of knowledge and experience in medical informatics, conducting systematic review, statistical analysis, writing an effective article and design of research, lack of financing for research and sometimes lack of awareness of supervisor in mentioned questions. The reason was this information wasn't included in curriculum before 2017 year. Since 2017 after renew of PhD curriculum, this problem was resolved particularly, the lack of understanding of design and methods of statistical analysis were remained. EGPRN trainers were invited to provide few trainings for young GPs interested in scientific work with description of European and Wonca recommendations for research in primary care. The survey showed that first training allowed young GPs to understand better international approaches for planning, conducting research and writing articles and thesis, the importance of ICPC-2 use and the adherence and awareness improved. But for better results the training for supervisors is also needed as additional financing state programs for young researches in family medicine.

Conclusions:
The special education or training in standard approaches for conducting research in primary care are needed for young doctors and PhD students as well as their supervisors for better adherence and conducting research.

Points for discussion:
What problems do you have in conducting research?

How you resolve it?

How to increase the engagement of GPs to scientific activity?

Presentation on 11/05/2019 14:00 in "Poster Session 6 - Pharmaceuticals and Other" by Victoria Tkachenko.

Poster / Ongoing study with preliminary results

Usage habits of peroral, over the counter analgesics in the adult population of Latvia

Jānis Blumfelds

Riga Stradiņš University, LV-1076 Riga, Latvia. E-mail: blumfelds91@gmail.com

Keywords: Analgesics, ibuprofen, aspirin, acetaminophen, habits, demographics

Background:
Analgesics are among the most used medications worldwide. Forms of aspirin, ibuprofen and acetaminophen are freely accessible in pharmacies without doctors prescription. This leads to the possibility of a doctor being unaware of the use of those medications, which can have serious side effects or cross-reactions with other drugs, during treatment.

Research questions:
The aim of this study was to evaluate usage rate of ibuprofen, aspirin and acetaminophen in the adult population and seek demographic groups of most active use.

Method:
Self-made questionnaires were used to acquire data from persons of age greater than 18. Questionnaires were provided in three general practitioners practices and through internet environment. The data were processed and analyzed using MS Excel and SPSS software.

Results:
644 valid questionnaires were collected. Mean age of population was 33.79 ranging from 18 to 78 years of age. 84% of the population were female, 16% male. During period of year most used medication was ibuprofen (81.8% of respondents), followed by acetaminophen (47.4%), aspirin (22.5%), and aspirin/acetaminophen combined medications (15.4%). There was a significant difference of frequency use of ibuprofen and acetaminophen-related to age groups. Age groups of 18-27; and 28-37, had lowest percentages of ibuprofen and acetaminophen none users. Female were associated with higher consumption of ibuprofen than men ($p<0.05$), but no associations within other medication groups were found. Active smoking and high alcohol consumption was associated with a higher rate of ibuprofen usage. ($p<0.01$). Physical activity or BMI had no significant impact to use of any analgesics.

Conclusions:
Ibuprofen and acetaminophen recording highest usage rates in population sample were only ones showing a significant difference between usage rates in different demographic groups, being used more frequent in younger populations. Ibuprofen also was used more by the female population. Alcohol use and active smoking had an impact on higher use of non-prescription analgesics.

Presentation on 11/05/2019 14:00 in "Poster Session 6 - Pharmaceuticals and Other" by Jānis Blumfelds.

Freestanding Paper / Finished study

Glycemic control, use of steroids and infection among patients with type 2 diabetes

Anthony Heymann, Galia Zacai

University Tel Aviv, 5222340 Ramat Gan, Israel. E-mail: tonyheymann@gmail.com

Keywords: Infection, Type 2 diabetes, Steroid medication

Background:
Previous studies have shown an increased rate of infection among patients with diabetes however it is unclear from these studies if the level of HbA1c is correlated with infection.

Research questions:
The aim of this study is to examine the association between glycemic control of type 2 diabetes patients and the incidence of infections

Method:
A HMO database was used to identify all DM patients. The first HBA1C test during the period of the study was selected for each patient, then an infection diagnosis was searched in the 60 days that followed the test. We compared the HBA1C test results that were followed by an infection to those that were not. After applying exclusion criteria: having cancer , receiving immuno-suppressive medication, undergoing dialysis treatment anemia less than 9 mg%, G6PD deficiency, there remained 33,637 patients in the cohort. The study period was October 2014 – September 2017.
The following information was collected: age, gender, socio-economic index, BMI use of hypoglycemic and steroid medication in the 90 days before infection, and comorbid conditions (IHD, PVD , CVA, CCF, asthma, COPD, Parkinson disease, dementia, CRF).

Results:
804 patients had an infection within 60 days following a HbA1C test. For cellulitis, cholycystitis, herpes zoster, pneumonia and sinusitus the HbA1c was higher that those patients that had no infection. (For cellulitis 7.603 vs 7.243). When factored into logistic regression analysis we found that other chronic disease increase the risk of infection between 29 to 60%. Each increase of a gram HbA1c increased the risk by 8.5%. Use of steroids in the 90 days before the infection increase the chance of infection by 734%!

Conclusions:
Increasing HbA1c and comorbidity both increase the risk of infection among Type 2 diabetics but use of oral or injectable steroids is a much more significant risk factor.

Points for discussion:
The pitfalls and advantages of database analysis

The vastly increased risk of steroids in this population. An increased risk for infection after exposure to steroids in the general population has been reported but this has not been reported in a diabetic population

The need to vaccinate these patients for Herpes Zoster and Pneumococcus

Presentation on 11/05/2019 16:00 in "Parallel Session K - Freestanding papers (Miscellaneous)" by Galia Zacai.

Freestanding Paper / Finished study

GPs' gut feelings sense of alarm is valuable in dyspnoea and chest pain

Marie Barais, Emilie Fossard, Antoine Dany, Paul Van Royen, Erik Stolper

université de bretagne occidentale, departement universitaire de médecine générale, 29238 brest cedex 3, France. E-mail: marie.barais@gmail.com

Keywords: gut feelings, family medicine, general practitioners, diagnostic reasoning, decision making, problem solving, chest pain, dyspnoea, intuition

Background:
Dyspnoea and chest pain are symptoms shared with multiple pathologies ranging from the benign to life-threatening diseases. Gut feelings such as the sense of alarm and the sense of reassurance play a substantial role in the diagnostic reasoning process of general practitioners (GPs), also in the case of dyspnoea and chest pain. A validated Gut Feelings Questionnaire (GFQ) enables us to determine the presence or absence of a GP's sense of alarm or sense of reassurance.

Research questions:
The aim of the study was to estimate the diagnostic test accuracy of GPs' sense of alarm distinguishing life and non-life-threatening pathologies when confronted with dyspnoea and chest pain.

Method:
Prospective observational study in general practice. Patients aged between 18 and 80 years, consulting their GP for dyspnoea and/or chest pain, were considered for enrolment. These GPs had to complete the GFQ immediately after the consultation. Life-threatening and non-life-threatening diseases have previously been defined according to the pathologies or symptoms in the ICPC2 classification following a nominal group procedure. The index test was the sense of alarm and the reference standard was the final diagnosis at 4 weeks.

Results:
25 GPs filled in 235 GFQ questionnaires. The positive likelihood ratio for the sense of alarm was 2.12 [CI95 = 1.49; 2.82], the negative likelihood ratio was 0.55 [CI95 = 0.37; 0.77]. When a GP experienced a sense of alarm when a patient consulted him/her for dyspnoea and/or chest pain, the post-test odds that this patient has, in fact, a life-threatening disease was about twice as high as the pre-test odds.

Conclusions:
The sense of alarm is valuable in the context of low-level signs of diseases related to dyspnoea and chest pain.

Points for discussion:
A main limitation of this study was the low number of participating GPs. How do you deal with the involvement of GPs into research in your country?

Are there research opportunities to use the GFQ in your country?

Presentation on 11/05/2019 16:00 in "Parallel Session K - Freestanding papers (Miscellaneous)" by Marie Barais.

Freestanding Paper / Finished study

How does child abuse suspicion arise in general practice

Erik Stolper, Margje Van De Wiel

Maastricht University, General Practice, 8181 ZN Heerde, Netherlands. E-mail: cf.stolper@maastrichtuniversity.nl

Keywords: child abuse detection, gut feelings, focus groups, general practice, family physician

Background:
Child abuse is wide spread, occurs in all cultures and communities and remains undiscovered in 90% of the cases. 80% of reported child abuse concerns emotional ill-treatment. In the Netherlands, at least 3% (118.000) of children are victims of child abuse resulting in 50 deaths each year. Only 1-3% of abuse cases are reported by general practitioners (GPs) to the Child Protective Services agency (CPS). To explain this low reporting rate we examined GPs' experiences with child abuse.

Research questions:
How does the suspicion of child abuse arise in GPs' diagnostic reasoning? How do they act upon their suspicion and what kind of barriers do they experience in their management?

Method:
In total 26 GPs (16 females) participated in four focus groups. We used purposive sampling to include GPs with different levels of experience in rural and urban areas spread over the Netherlands. We used NVivo for thematic content analysis.

Results:
Suspected child abuse arose based on common triggers and a gut feeling that 'something is wrong here'. GPs acted upon their suspicion by gathering more data by history taking and physical examination. They often found it difficult to decide whether a child was abused because parents, despite their good intentions, may lack parenting skills and differ in their norms and values. Clear signs of sexual abuse and physical violence are reported by GPs to CPS. However, in less clear-cut cases they followed-up and built a supporting network around the family. Most GPs highly valued the patient-doctor relationship while recognizing the risk of pushing boundaries.

Conclusions:
A low child abuse reporting rate by GPs to CPS does not mean a low detection rate. GPs use patients' trust in their doctor to improve a child's situation by involving other professionals.

Points for discussion:
Also in other countries the GPs' reporting rate of child abuse is low. Could our findings be generalized to the GPs in your country?

Presentation on 11/05/2019 16:00 in "Parallel Session K - Freestanding papers (Miscellaneous)" by Erik Stolper.

Poster / Study Proposal / Idea

What influences medical students' choice of family medicine as a career? A research protocol from the 2018/2019 EGPRN Fellows.

Maria Bakola, Canan Tuz, Alice Serafini, Michael Harris

University of Bath, BA27AY Bath, United Kingdom. E-mail: michaelharris681@btinternet.com

Keywords: General Practice, Medical Students, Career Choice

Background:
Family medicine (FM) is a multidimensional field of medicine; it deals with prevention, screening as well as diagnosis and first-hand treatment of many acute and chronic health problems. Nevertheless, in many countries the number of medical students who choose (FM) as a career has decreased. Studies indicate that medical students' career preferences are associated with their ultimate career choices, and that in many countries these are important determinants of the distribution of specialities. Many factors are known to influence medical students' career speciality decisions: student demographics and biographical characteristics, medical school characteristics, students' perceptions of speciality characteristics, and student-held values and attitudes. Although in some European countries there has been extensive research on these factors, in some Mediterranean countries limited data are available.

Research questions:
What are the attitudes and factors that influence medical students' choice of FM as a career speciality?

Method:
This study will use a questionnaire with a mixture of closed and open-ended questions. The appropriate methodology and study protocol will be informed by a literature review in preparation for the subsequent study in the Fellows' three Mediterranean countries (Italy, Turkey and Greece).

Results:
The three EGPRN Fellows will present their study protocol, with a particular focus on discussion of the methodological aspects learned during the EGPRN Fellowship.

Conclusions:
This study will provide information about how medical students make decisions on speciality choice and how it varies in three Mediterranean countries. It will identify the attitudes of 'millennial' medical students with respect to our discipline, focusing on three countries in which FM has a poorer academic background and is still in organizational development.
Determining these factors will allow us to decide how to make the FM more attractive to medical students in our countries, and help with planning to reduce the shortage of these healthcare professionals.

Points for discussion:
Are there other EGPRN countries which also lack this information?

How might Italian, Turkish and Greek medical students' responses compare with those of other countries?

Presentation on 11/05/2019 16:00 in "Parallel Session L - Research Course Research Fellow Presentations" by Alice Serafini.

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Abstract Book of the 88th EGPRN Meeting
Tampere-Finland, 9-12 May 2019
ISBN: 978-90-829673-3-3