

EUROPEAN GENERAL PRACTICE



RESEARCH NETWORK

*EGPRN is a network organisation within  
WONCA Region Europe - ESGP/FM*

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## **European General Practice Research Network**

**Dubrovnik – Croatia**

**15<sup>th</sup> – 18<sup>th</sup> October, 2009**

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**08.50 - 09.10: 1<sup>st</sup> Keynote Speaker: Professor Chris van Weel, PhD – The Netherlands.**

**Theme: “Research on Multimorbidity in General Practice”.**

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Research for Care, Care for Research.

Reflections on the Challenges of Multi-Morbidity for General Practice.

The traditional perception of the scientific mission of general practice pictures the need of amending the quality and performance of an ailing discipline, through research. More rigorous biomedical research was promoted in this respect. There is no reason to question the strong positive influence of research on the development of general practice and primary care. But at the same time, it is clear that through research the perceptions of the problems and challenges of patient care have changed. Rather than general practice and primary care as the defunct domains of medical practice, it is now widely acknowledged that biomedicine with its overemphasized disease perspectives, is in a crisis. In the strategy to cope with this crisis, core values of general practice come to the rescue – notably person centeredness, continuity of care and the community and context orientation. As a consequence, the interaction of ‘general practice and research’ has led to the understanding that to change patient care there is a need to change the prevailing research culture.

Multimorbidity, or co-morbidity, may serve as a case in point to understand how general practice has ‘revolutionized’ medical research. This presentation will illustrate this and focus on:

- From omnipotent science and deficient patient care to a partnership for new practice; or how practice can be miles ahead of research.
- From ivory tower to the village green – ‘societal impact’ and external validity as markers of the quality of research.
- The human perspective – how knowing the patient with the disease may be as important as knowing the disease the patient has.
- The place of social determinants.

**09.10 – 09.30: 2<sup>nd</sup> Keynote Speaker: Professor Milica Katic – Croatia.**

**Theme: “Family Medicine Research in Croatia: State of the art and future challenges”.**

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The long and fruitful tradition of public health- and community-oriented research work of the “Andrija Stampar” School of Public Health is one of the fundamentals of the Family Medicine Research in Croatia. The second cornerstone of the development of research activities was instituting specialisation in General Practice /Family Medicine in 1960, which by its very nature led to the need for further research and, in turn, resulted in further development of family medicine as a discipline, including research. Another significant factor fostering research activities in Croatia is the long tradition of Croatian presence in EGPRN: professor Vladimir Grahovac became the national representative in EGPRN in the early eighties, collaborated in several EGPRN international studies and initiated great improvement of research activities in general practice /family medicine in Croatia.

The development of primary care research capacity in Croatia mainly followed the policy recommended by the “Kingston report” and by the Research Agenda for Primary Health Care /General Practice in Europe.

In 1980, the Department of Family Medicine of the “Andrija Stampar” School of Public Health, Medical School of the University of Zagreb was founded, followed by the establishment of the departments of family medicine at medical schools in Rijeka, Osijek and Split.

The most prominent General Practitioners were retained as teachers at the departments of family medicine and those who were interested in research participated in numerous studies carried out in Croatia or in international studies (Interface between primary and secondary care, Referral study, Health monitoring study, Burnout study, etc). They were recognised as the national general practice /family medicine research network which includes around 120 GPs. In 1996, the Department of Family Medicine Medical School University of Zagreb and Croatian Association of Family Medicine established the Croatian Family Medicine Research Club, which represents this network formally.

Within the ongoing project “Adjusting Family Medicine with European Standards”, all doctors working in the family medicine service are supposed to be specialised by the year 2015. “Research in Family Medicine” is a mandatory course within the residency programme, where each trainee is obliged to perform a small supervised project. The goal of this course is to increase trainees’ likelihood of conducting and capacity to conduct research. In the period from 2003 to 2008, almost 600 small diploma projects were performed by trainees and around 20% of them were either presented at conferences and congresses or published in a national journal, while several were published in international journals.

Also, Croatia has professional associations of family medicine holding congresses, which allow researchers to present their work. In addition, the Croatian Association of Family Medicine published the journal “Medicina Familiaris Croatica”.

As in other countries, descriptive epidemiological studies were the main area of research interest in the beginning. Later on, the leading research topics were specificity of general practice (organisation, morbidity in GP, workload, prescribing, referral etc). Health system research also became one of the most relevant topics due to substantial socio-economic changes occurring in Croatia after the war.

In the future, Family Medicine Research in Croatia will mainly be focused on the specific core content of General Practice, which is the basis for specific research domains (research on clinical issues, health service research and research on education and teaching in general practice).

Among the well known significant barriers for GPs' participation in research activities, such as lack of time, funding, and research skills, in Croatia we also faced an additional obstacle. Around 80% of all doctors working in Family Medicine Service are independent contractors with Croatian Institute for Health Insurance and work alone in a single-handed practice. Their position in the health system forces them to devote a great majority of their energy and time for running their practices, thus diminishing their research output.

Further development of the Family Medicine Research in Croatia mainly depends on changes in organisation and financing of the health system, on strengthening the academic general practice, formal and informal education of research and stronger co-operation among professional organisations, academic departments of Family Medicine and other medical disciplines in planning and execution of research projects, and improvement of international collaboration.

Guided by this vision, the Croatian general practice research community expects that the Dubrovnik EGPRN conference will help us make these expectations more achievable and successful.

**08.45 – 09.05: 3<sup>rd</sup> Keynote Speaker: Professor Igor Svab – Slovenia.**

**Theme: “Research Challenges in Family Medicine in Changing Europe”.**

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Although it is one of the wealthiest regions, Europe is also a continent of vast diversities. This is true for all areas of human activity, including medicine. Also in family medicine, there are countries with well established academic departments of family medicine, with developed research infrastructure and stable research funding, but also countries that are only beginning to develop its research potential. This is big, and is hardly ever achieved. With growing emphasis on primary care and family medicine, there is a need to support family medicine research in all these situations, which requires different approaches.

Frequent pitfalls of family medicine research, especially in its early stages of development are:

1. inadequate research funding: most research in family medicine is still either under funded or funded according to the wrong criteria (usually funding is based on number of publications and not on relevance to patient care)
2. inadequate research priorities: although research may be funded appropriately, the priorities in research are decided by payers that do not take into account the specificities and potentials of family medicine.
3. lack of self-confidence and expertise: especially newly established departments and research departments tend to pursue research ideas that would be different from the principles of family medicine, using research methodology and approaches that are not suitable for the problems they are addressing.
4. the academic-practical split: quite often family medicine departments work separately from practising physicians.

The role of Wonca Europe is to be aware of these problems and to promote the scientific aspects of family medicine on a global level. Because of that, Wonca Europe has promoted the development of a series of documents on principles of family medicine: the European definition, the Teaching agenda, and recently the Research agenda for general practice. These documents have a potential to make a change in this aspect and to help the family doctors and the policy makers to develop and defend proper research proposals that would be more in line with the problems of practising physicians and their patients.

PRESENTATION 1: Friday 16<sup>th</sup> October, 2009  
09.20 – 09.50 h.

THEME PAPER  
Ongoing study with preliminary results

TITLE: Patient-centred treatment planning with elderly multimorbid patients – method and design of a cluster-randomized intervention study.

AUTHOR(S): Isabel Voigt, Heike Diederichs-Egidi, Marie-Luise Dierks  
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#### Background

Elderly patients suffer from several chronic diseases which require prioritization in treatment planning. Therefore good communication between doctor and patient is essential to achieve a common understanding on which health problems need further attention. We develop a consultation guide to facilitate a common prioritization in treatment planning using a structured procedure.

#### Research questions

Do patients and doctors agree on health and treatment priorities?

Is it possible and beneficial to integrate patients in a shared decision making process on health and treatment priorities by using a consultation guide?

#### Method

This mixed methods research study has three complementary parts. In the qualitative part, patients receive a geriatric assessment to gain an overview of their health problems. Patients and their doctors independently rate the importance of each uncovered problem and explain why these problems are more or less important. In the quantitative part, 40 practices with 320 patients are randomly selected for the intervention or control arm. Both groups receive a geriatric assessment. Only the intervention arm uses a structured consultation guide to facilitate shared treatment planning. In the last part the feasibility is tested.

#### Results

First results of the qualitative part will be presented here. The 34 patients were on average 78 years, 50% female. Patients had a mean of 18 health problems (stdev +-9.2). Half of all problems were important to the patients (52%) and their doctors (46%). However, doctors and patients did not agree on the importance of the specific problems (concordance: cohen's kappa = 0,177). The analysis of the qualitative interviews produced different dimensions that explain why health problems are more or less relevant.

#### Conclusion

The low concordance on health and treatment priorities between patients and doctors necessitate a better communication between both parties. Whether the consultation guide facilitates communication effectively will be investigated next.

#### Points for discussion:

1. Your feedback on the design.
2. How to continue research on health priorities from here?

PRESENTATION 2: Friday 16<sup>th</sup> October, 2009  
09.50 – 10.20 h.

THEME PAPER  
Ongoing study with preliminary results

TITLE: Influence of (multi)morbidity on cognitive functioning in a normal aging population: 6- and 12 year follow-up of the Maastricht Aging Study.

AUTHOR(S): Sil Aarts, M.P. van Boxtel, F.Tan , F.R. Verhey  
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#### Background:

The occurrence of multiple chronic medical conditions has risen considerably because of the increase in longevity and the rapidly growing number of older individuals. Multimorbidity is associated with several poor health outcomes including a decrease in cognitive performance. This can result in a loss of independence and quality of life. Evidence suggests that impaired physical and mental health is involved in cognitive decline in both normal and pathological aging.

#### Research question:

The primary aim of the present study is to investigate the effect of (multi)morbidity on cognitive functioning over a 12 year period. The findings can gain insight into subgroups, suffering from (multi)morbidity, which are more vulnerable to experience cognitive decline.

#### Methods:

Data were collected as part of the Maastricht Aging Study (MAAS), a prospective study of the determinants of cognitive aging. The MAAS participants (N=1773), aged 24 -81 years, were recruited from the Registration Network Family Practices which enabled the use of medical data. The association between 98 chronic diseases, grouped into 23 clusters, and cognitive functioning during on baseline and at 6 and 12 years of follow-up were analyzed. Cognitive performance was measured on two cognitive domains: verbal memory and psychomotor speed. A multilevel approach, a method respecting the hierarchical data structure, was used for statistical analysis.

#### Results:

Since the authors just began with the statistical analysis of the data, not all results can be mentioned here. So far, results indicate that 52.7% of the participants suffered from multimorbidity. Results and conclusions will be present at the conference date.

#### Points for discussion:

1. The GP may play a crucial role in recognizing patients who are at risk of cognitive decline which is elicited by their health status. How can general practitioners best inform and help these kinds of patients?
2. Should general practitioners screen

PRESENTATION 3: Friday 16<sup>th</sup> October, 2009  
10.20 – 10.50 h.

THEME PAPER

TITLE: Systems biology approach in research of multimorbidity.

AUTHOR(S): Branko Vitale, Mladen Martinis, Zdenko Sonicki, Ljiljana Majnaric

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**Background:**

Influenza vaccination efficacy is significantly lower in the elderly than in the young persons. Factors potentially responsible for that include: previous exposure to influenza viruses, preexisting antibody titres, older age and chronic diseases. Understanding these factors may be important when evaluate new vaccine preparations and vaccination approaches.

**Research question:**

How do chronic aging diseases affect antibody response to influenza vaccination.

**Method:**

A systems biology approach. A Data-Base, composed of a total of 52 clinical parameters, including: age, sex, diagnoses of the main chronic aging diseases, anthropometric measures and hematological and biochemical laboratory tests, was used to describe the health-status of examinees, 93 volunteers, aged 50-89 (median 69), out of total of 150 persons who were vaccinated.

By Machine Learning algorithms, applied on a Data-Base according to four different criteria for definition of the low serologic response, 16 parameters were selected which could serve as potential predictors of the poor influenza vaccine serologic response. By using additional algorithms, for several of selected parameters, we gained better inside in the way parameters are linked with each other forming functional units.

**Results:**

In this way, we could identify four clinical conditions as to may negatively influence responsiveness to influenza vaccine. These conditions are: impaired renal function, neurologic and mental disorders (especially those connected with changes in the hypothalamus and the pituitary gland - the central point of the neuroendocrine control), the thyroid gland hormones hypofunction and Helicobacter pylori positive chronic gastritis. These conditions are mutually interconnected and operate via common mechanisms such as inflammation, protein malnutrition, glucose metabolism impairment and metabolic disorders associated with vitamin B12 deficiency and hyperhomocysteinemia.

**Conclusions:**

Recording health data systematically (in a form of a Data-Base) and using Machine Learning techniques could provide new opportunities in research of multimorbidity.

**Points for discussion:**

1. Multicomponent Data-Base (a systems biology approach) in research of multimorbidity
2. A role of integrated knowledge in understanding the pathogenesis basis of multimorbidity
3. Advanced computer-based techniques in research in the primary health care



PRESENTATION 4: Friday 16<sup>th</sup> October, 2009  
11.20 – 11.50 h.

THEME PAPER

TITLE: Patterns of co-morbidity and multimorbidity of chronic diseases: results of a ten year follow-up of chronic patients in family medicine in Croatia.

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Background:

Chronic disease (CD) multimorbidity in the General Practitioner (GP) population and appropriate management of multimorbid patients is one of the main challenges in General Practice.

Research question: To investigate the burden of multimorbidity and patterns of co-morbidity of CDs especially in hypertonics in a GP population over a 10 year follow-up.

Method:

A longitudinal historic cohort study was performed from 1994-2003. We collected data on socio-demographic characteristics, all recorded CDs, and the year when the diagnosis of hypertension was established in seven teaching GP practices in Zagreb. The study encompassed medical records of 6409 patients with at least one CD recorded in 1994 according to the International Classification of Diseases, X revision. Out of 6409 respondents, 26,4% died, 10,7% changed their GP and there were no data available for 30,6%.

The final sample consisted of 2071(32, 3%) chronic patients (63,9% women and 36,1% men). Software SAS 8.0.2 (SAS Institute inc., Carry, NC, USA) was used for data analysis.

Results:

The number of CDs has risen from 3,372 diagnoses in 1994 to 9,822 in 2003. The proportion of CD multimorbidity has risen from 36,9 % to 88,6% for men and from 49,0% to 94,1% for women , respectively.

Risk factors associated with CD multimorbidity were: age (OR=2.498, 95% CI, (2.068-3.018)), female sex (OR=2.045, 95% CI, (1.483-2.820)) and single status (OR=1.929, 95% CI, (1.66-4.191)).

Out of 1,043 hypertonics, 44% have had the diagnosis for 1 to 10 years, 45% for 10-20 years, and 11% more than 20 years. Considering hypertension as an index disease we find a vast amount of different CD co-morbidities with two to 13 additional CDs.

Conclusions:

This study indicates the need for adjustment in the function of the health care system as well as flexibility in applying guidelines for CDs management in general practice.

Points for discussion:

Suggestions from the EGPRN forum in analyzing CD multimorbidity/co-morbidity patterns in this cohort study will contribute to the quality of this study and to the future care of these patients.

PRESENTATION 5: Friday 16<sup>th</sup> October, 2009  
11.50 – 12.20 h.

THEME PAPER

TITLE: Cardiovascular multimorbidity in primary care: a cross sectional study of prevalence and healthcare utilisation.

AUTHOR(S): Liam Glynn, J.M. Valderas, J. Newell, P. Healy, E. Burke, D. Reddan S.F. Dinneen, Andrew W. Murphy

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Background:

The majority of patients managed in primary care suffer from more than one condition. Cardiovascular multimorbidity (simultaneous coexistence of coronary artery disease, diabetes or chronic kidney disease) is an independent predictor of morbidity and mortality but little data exists on its prevalence in the community or its effect on healthcare utilisation.

Research question:

This cross sectional study examined the prevalence of cardiovascular multimorbidity and examined whether a relationship exists between level of cardiovascular multimorbidity and healthcare utilisation.

Method:

In a University-affiliated general practice research network in the West of Ireland, all active (two or more consultations in the previous 24 months) patients > 50 years of age with blood result data for the previous 24 months were included in the study. Patients with coronary artery disease, diabetes and chronic kidney disease were identified and factors associated with the management of cardiovascular multimorbidity were recorded. Healthcare utilisation in-hours and out-of-hours was recorded for the previous 12 months for all patients in primary and secondary care.

Results:

Among 2602 patients > 50 years of age in the community, 763 (29%) patients had 1 or more of the conditions of coronary artery disease, diabetes and chronic kidney disease, while 180 (7%) had cardiovascular multimorbidity. Healthcare utilisation (primary care consultations, hospital admissions, hospital outpatient consultations and repeat medications) was relatively higher among such patients as were other co-morbidities, and all increased significantly with increasing level of cardiovascular multimorbidity ( $p < 0.001$ ). Patients with all three conditions had lowest absolute values for current smoking, blood pressure and lipid profiles ( $p = 0.029$ ).

Conclusions:

Cardiovascular multimorbidity is common in patients greater than 50 years of age in the community and is associated with high levels of healthcare utilisation and comorbidity. Risk factor management remains suboptimal in this high risk group. This has significant cost implications in financial and manpower terms for purchasers and providers of healthcare.

Points for discussion:

1. Definitions of multimorbidity
2. Relationship between multimorbidity and healthcare utilisation
3. Interventions to improve outcomes and reduce healthcare costs for patients with multimorbidity

PRESENTATION 6: Friday 16<sup>th</sup> October, 2009  
12.20 – 12.50 h.

FREESTANDING PAPER

TITLE: Factors associated with depression and anxiety in family practice patients with co-morbidities.

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#### Background:

Identification and treatment of anxious and depressive disorders represent a great challenge for family physicians because the symptoms of mental and physical illnesses overlap and many patients present with co-morbidities rather than with simple cases. Although psychiatric disorders account for almost a quarter of family practice attendees, around 60% of depressed patients in family practice are left unidentified and untreated. According to the findings of previous research up to 20% of patients with chronic somatic disease suffer from major depression. Anxiety is present in 14 to 66% of the patients with physical chronic disease and depression.

#### Research question:

To determine the factors associated with the presence of anxiety and depression in family practice patients with co-morbidities.

#### Method:

Self-administered questionnaires (Zung's self-rating depression scale and Zung's self-rating anxiety scale) in a sample of 800 consecutive family practice patients. The main outcome measures were depression and anxiety scores in patients with various co-morbidities.

#### Results:

A binary logistic regression model for the presence of depression showed that widowed/divorced status, elementary/vocational education, cardiac diseases, migraine and higher levels of chronic pain were independent factors, associated with the presence of depression. A binary logistic regression model for the presence of anxiety showed that female gender, lower income, cardiac diseases, osteoarthritis and rheumatologic diseases, and higher levels of chronic pain were independent factors, associated with the presence of anxiety.

#### Conclusions:

Family physicians should actively and routinely search for the presence of depression and anxiety among their patients, especially among women, patients with lower levels of education, widowed and divorced patients, patients with chronic pain, and patients with cardiac and rheumatologic diseases, and migraine. They should provide a more successful analgesic treatment for the patients with chronic pain in order to prevent the development of depression and anxiety.

#### Points for discussion:

1. Is the research methodology appropriate?
2. Do the factors that were found to be associated with the presence of depression and anxiety differ among different countries?

PRESENTATION 7: Friday 16<sup>th</sup> October, 2009  
14.00 – 14.30 h.

FREESTANDING PAPER

TITLE: Ruling out coronary heart disease in Primary Care. Development and international validation of a simple rule.

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Background:

Chest pain can be caused by a wide range of conditions with life threatening cardiac disease being of the greatest concern to doctors and patients. Prediction scores have been developed for CHD in emergency settings, however not for the primary care context.

Research question:

Can a simple prediction score help the GP to rule out CHD in patients presenting with chest pain in a primary care setting?

Method:

A cross-sectional diagnostic study with delayed-type reference standard was conducted in 74 GP practices in Germany with 1249 patients consecutively presenting with chest pains. GPs recorded symptoms and findings of each patient on a report form. Patients and GPs were contacted at 6 week and 6 month intervals. Data on chest complaints, investigations, hospitalisation and medication were reviewed by an independent reference panel, CHD being the reference condition. Adjusted Odds Ratios of relevant predictors were used to develop a prediction rule. Bootstrapping was used for internal validation of the resulting score. An external cross validation was performed with data derived from another prospective study that was conducted in a similar setting.

Results:

The resulting score contained five determinants (age/gender, known clinical vascular disease, pain worse with exercise, patient assumes cardiac origin of pain, pain reproducible by palpation) and ranged from 0 to 5 points. For the derivation (validation) cohort prevalence of CHD was 2.7% (2.3%), 23.0% (24.6%) and 60.5% (65.2%) for the low, intermediate and high risk categories. The AUC was 0.87; 95% CI, 0.83-0.91 (0.90; 95% CI, 0.87-0.93). Ruling out low risk patients had a sensitivity of 86.4% (87.1%), a specificity of 75.2% (80.7%), a PPV of 34.9% (39.6%), a NPV of 97.3% (97.7%) and a misclassification rate of 2.7% (2.3%).

Conclusions:

The Score can help to rule out CHD in patients presenting with chest pain in primary care.

Points for discussion:

What is the appropriate method to transform regression coefficients and/or adjusted odds ratios of different variables into a scoring system for clinical use?

How can a predictive score be optimised before external cross validation?

PRESENTATION 8: Friday 16<sup>th</sup> October, 2009  
14.30 – 15.00 h.

FREESTANDING PAPER  
Ongoing study with preliminary results

TITLE: Cardiac Rehabilitation in General Practice.

AUTHOR(S): Karen Kjaer Larsen, M. Vestergaard, J. Soendergaard, B. Christensen

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#### Background:

Acute myocardial infarction (AMI) results in substantial disability and is a major cause of death in Europe. Cardiac rehabilitation (CR) is probably the most effective approach to meet these challenges. CR is divided into three phases: (1) acute admission, (2) intensive out-patient course of 8-12 weeks and (3) long term maintenance in primary care. However, only about one third of eligible patients participate in phase 2 CR. No studies deal with the provision of phase 3, the collaboration between the two sectors in phase 2 and 3 or whether the primary sector in phase 3 can make up for the loss of phase 2.

#### Research question:

To what extent are phase 2 and 3 CR provided?

Can provision of phase 3 make up for the loss of phase 2 with regard to treatment goals?

#### Method:

A cohort of approximately 1400 consecutive patients resident in the Central Denmark Region and discharged with first time AMI in 2009 was established and followed for 12 months. The patients were identified by The Danish National Registry of Patients. Questionnaires regarding provision of CR, lifestyle and health, were sent to the patients 14-16 weeks and 12 months after discharge. Questionnaires regarding organisation of phase 3 were sent to the patient's general practitioner 12 months after discharge. Danish registers provided the information on medication adherence, laboratory tests, socioeconomic and co-morbidity.

#### Preliminary results:

421 patients included. Questionnaires sent to 340 (58 died, 23 uncontactable). Response rate 70 %. Phase 2 provision rates: smoking cessation counselling 5 %, dietary counselling 44 %, patient education 38 %, exercise training 40 %, doctor counselling regarding medication 54 %, screening by questionnaire for anxiety and depression 3 %, counselling regarding mental reaction by nurse 45 %, by doctor 33 %, by psychologist 4 %, antidepressant medication 12 %.

#### Points for discussion:

1. How should we define comprehensive cardiac rehabilitation? How many of the components of CR must the patient take part in, in order for us to define that they have participated in phase 2 or phase 3? Is one component more important than others?

PRESENTATION 9: Friday 16<sup>th</sup> October, 2009  
15.00 – 15.30 h.

FREESTANDING PAPER  
Study proposal / idea

TITLE: Unaided GPs' clinical diagnosis in the evaluation of depressive patients – a pilot research.

AUTHOR(S): Stanislava Stojanovic-Spehar, Sanja Blažeković-Milaković

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Research question:

To determine diagnostic accuracy of unaided GPs' clinical diagnosis in the evaluation of depression in depressive patients under their care compared with BDI II as golden standard.

Method:

Three GPs offices (N=5100) were selected randomly from the representative sample for the city of Zagreb among 10 GPs offices (N=17 000). From the GPs standardized medical records, 53 patients with the diagnosis Depressive episode (F32) and Recurrent depressive disorder (F33) according to ICD 10 were extracted. Cross sectional study was performed during February 2008. Depressive patients were divided into three groups: nondepressed without therapy, nondepressed with therapy, and depressed with therapy. Unaided GPs' clinical diagnosis was compared with the results on BDI II, performed within two weeks of GPs estimation by psychologists unacquainted with GPs results. Based on clinician identification and BDI II, patients were assigned to 1 of 4 groups (true positive, false positive, false negative, and true negative). The sensitivity, specificity, and positive and negative predictive value associated with physician identification of depression were calculated by standard methods.

Results:

Unaided GPs' clinical diagnosis showed sensitivity and specificity of 66% and 93% respectively, positive predictive value 88% and negative predictive value 77%. BDI II confirmed depressiveness within depressed patients with therapy ( $=24,39 \pm 10,907$ ). Variance analysis found significant difference in BDI II means between outcome groups ( $P < 0,001$ ). According to clinician identification and BDI II, there were 16 (30.19%) depressed patients, 27 (50.94%) nondepressed patients, 2(3.78%) false positive, and 8(15.09%) false negative. Out of 8 false negative patients, 7 were with mild depressiveness and 1 with severe depressiveness

Conclusions:

Unaided GPs' clinical diagnosis with positive predictive value 88% should be valuable instrument in evaluation of their depressive patients compared with diagnostic accuracy of other instruments.

Points for discussion:

Should unaided GPs' clinical diagnosis be valuable instrument in evaluation of their depressive patients instead other screening tools

PRESENTATION 10: Friday 16<sup>th</sup> October, 2009  
15.30 – 16.00 h.

FREESTANDING PAPER

TITLE: Is herpes zoster a predictor of risk of malignancy?

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**Background:**

The relation between herpes zoster has been a point of concern for very long. In 2005 we reported an increased risk of malignancies after herpes zoster in women above age 65. This was based on an Intego-registration by 37 GPs over 7 years and including 311.000 patient-years. We now tested this relation on data from 1994-2007.

**Research question:**

Is there an increased risk of malignancy in patients after herpes zoster?

**Method:**

Prospective cohort study. We used data from the general practice-based KU Leuven Intego database including routinely and automatically collected morbidity data from 85 GPs and 1.300.000 patient-years. Registering GPs are selected on the basis of their excellent registration qualities. The patient population is very similar to the Flemish population with respect to age, sex and socio-economic status. Patients with herpes zoster were matched with controls on age and sex. Diagnoses of malignancy were confirmed histologically or cytologically in 92% and based on imaging in an additional 4%. We used Cox regression analysis to compare both groups and stratified for site, age and sex.

**Results:**

There was no significantly increased difference in risk of malignancy for all cancers in patients below age 65 and in males above age 65. In females above age 65, the hazard ratio (HR) was 1.58 (95% confidence interval=1.05-2.33). Results were most outspoken for colorectal cancer: HR = 2.01(95%CI=1.03-3.94) in females and 1.60 in males (non-significant).

**Conclusions:**

Although the hazard ratios are lower now, the initial results reported in 2005 seem to be confirmed in this much larger analysis. This provokes questions with respect to the physiopathology behind.

**Points for discussion:**

1. What are possible remaining biases or confounders which may influence our results?
2. What could be the physiopathological reasons behind this finding?
3. What should be clinical consequences of this finding?

PRESENTATION 11: Friday 16<sup>th</sup> October, 2009  
14.00 – 14.30 h.

FREESTANDING PAPER

TITLE: Causes of dizziness in the elderly: a diagnostic study in general practice using panel diagnosis.

AUTHOR(S): Otto R. Maarsingh, Jacqueliën Dros, Francois G. Schellevis  
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Background:

Dizziness often has more than one cause, especially in elderly patients. In 20-40% of dizzy patients the underlying cause(s) remain(s) unknown. Although dizzy patients are predominantly seen in general practice, most previous diagnostic studies on dizziness have been performed among patients not representative of general practice.

Research question:

To assess the contributing causes of dizziness in elderly patients in general practice.

Design:

Cross-sectional diagnostic study using panel diagnosis.

Setting:

Twenty-four Dutch general practices in and around Amsterdam.

Subjects:

417 patients aged between 65 and 95 years consulting their general practitioner for dizziness that had been present for at least two weeks.

Main outcome measures:

Results of history, physical examination, and additional diagnostic tests, using a set of diagnostic tests that was developed during an international Delphi procedure.

Subtypes of dizziness, and major/minor contributing causes of dizziness, according to an independent review by a panel consisting of a general practitioner, geriatrician, and nursing home physician.

Results:

Based on the results of history, physical examination, and additional diagnostic tests, the panel deemed presyncope to be the most common dizziness subtype (69%). Forty-four percent of the patients were assigned more than one dizziness subtype. Cardiovascular disease was deemed to be the most common major contributing cause of dizziness (57%), followed by peripheral vestibular disease (14%), and psychiatric disease (10%). An adverse drug effect was deemed to be the most common minor contributing cause of dizziness (23%). Sixty-two percent of the patients were assigned more than one contributing cause of dizziness.

Conclusions:

The distribution of subtypes and causes of dizziness in elderly patients in general practice is different from that in secondary or tertiary care. For a quarter of all patients an adverse drug effect was deemed to be a contributory cause of dizziness, which was much higher than reported in previous studies.

Points for discussion:

How to deal with the phenomenon of the blind men and the elephant?

[Sloane PD, Dallara J. Clinical research and geriatric dizziness: the blind men and the elephant. J Am Geriatr Soc 1999; 47(1):113-114.]



PRESENTATION 12: Friday 16<sup>th</sup> October, 2009  
14.30 – 15.00 h.

FREESTANDING PAPER

TITLE: Chest wall syndrome in primary care patients: presentation, associated features and prognosis.

AUTHOR(S): Erika Baum, Stefan Bösner, Annette Becker, Maren Abu Hani  
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**Background:**

Chest wall syndrome (CWS) is the most frequent aetiology of chest pain in a primary care setting.

**Research question:**

What is the epidemiology, clinical characteristics and prognosis of CWS in a primary care setting and what symptoms and signs can help the general practitioner (GP) to diagnose CWS?

**Method:**

We included 1212 consecutive patients with chest pain aged 35 years and older attending 74 GPs. GPs recorded symptoms and findings of each patient and provided follow up information. An independent interdisciplinary reference panel reviewed clinical data of every patient and decided about the aetiology of chest pain at the time of patient recruitment. Multivariable regression analysis was performed to identify clinical predictors that help to rule in or out the diagnosis of CWS.

**Results:**

GPs diagnosed pain originating from the chest wall in 46.6% of all patients. In most patients pain was localised retrosternal (52.0%) and/or on the left side (69.2%). 28.0% of CWS patients showed persistent pain and most patients reported no temporal association of pain (72.3%) and a pain frequency of more than one episode per day (62.9%). 72.8% of patients still had chest pain after 6 weeks and 55.4% after 6 months. Localised muscle tension, stinging pain and pain reproducible on palpation were associated positively with CWS. Negative associations were found for clinical vascular disease, dyspnoea, respiratory infection, need for home visit and cough.

**Conclusions:**

This study provides a practical approach for musculoskeletal chest pain summarising different diagnostic 'labels' like costochondritis or sternalis syndrome in the entity CWS. It broadens the knowledge about the diagnostic accuracy of selected signs and symptoms for CWS helping primary care practitioners in rational diagnosis.

**Points for discussion:**

1. How practicable is further diagnostic differentiation of musculoskeletal chest pain in Primary Care or is it more realistic to use the term 'chest wall syndrome'?
2. What can we do to prevent chronification of CWS?

PRESENTATION 13: Friday 16<sup>th</sup> October, 2009  
15.00 – 15.30 h.

FREESTANDING PAPER

TITLE: Escape ABPMS : End-Digit Preference in Blood Pressure  
Measurement within a Cluster Randomized Trial in General Practice.

AUTHOR(S): Denis Pouchain, Jean-Pierre Lebeau, F. Wilmart, C. Dibao-Dina  
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**Background:**

When measuring blood pressure (BP), end-digit preference (EDP) is a widespread phenomenon with major consequences on GPs decisions and patient's morbidity. Using an electronic device has proved to dramatically decrease this phenomenon. In the ESCAPE trial, the 1 833 hypertensive patients had all clinical and biological characteristics comparable at baseline except for systolic (SBP) and diastolic (DBP) blood pressure, higher in the intervention group (IG), with  $p < 0.0001$ .

**Research question:**

Is the difference in BP between the groups at baseline due to a lowering of EDP in the IG working with an electronic device, while 75% of the GPs in the control group (CG) were using a conventional device?

**Method:**

Mix effect linear model comparison of the mean values of SBP and DBP in the IG, the CG and the electronic control group (ECG).

Comparison (Chi2) of the EDP rate between the groups, and mix effect linear model evaluation of its impact on the mean BP values.

Comparison (Chi2) of the number of GPs practising EDP in the 3 groups.

**Results:**

Mean BP values were 146/84 mmHg in the IG, 138/81 in the CG and 143/82 in the ECG. Upon 7 258 measurements, EDP at zero for SBP was 64.1% in the GT, 16.6% in the GI and 35.1% in the ECG ( $p < 0.05$ ). For DBP, EDB at zero was 65.5%, 16.7% and 39.8% respectively ( $p < 0.05$ ). Impact of EDP reduces the difference for SBP at baseline between IG and CG from 7 to 3.5 mmHg ( $p < 0.02$ ). 29.6% of GPs practice EDP in the IG, 65.6% in the ECG and 93.5% in the CG using a conventional device ( $p < 0.05$ ).

**Conclusions:**

Though electronic BP measurement reduces EDP, GPs still practice it, even with an electronic device.

**Points for discussion:**

1. We have reasons to suspect that EDP reincreases after a few months of use of an electronic: how should we try and demonstrate this?
2. What new adjustments issues can come up in the comparison between IG with an electronic device and CG with a conv

PRESENTATION 14: Friday 16<sup>th</sup> October, 2009  
15.30 – 16.00 h.

FREESTANDING PAPER

TITLE: Consensus about Gut Feelings in France.

AUTHOR(S): M. Coppens, D. Gras, L. Coblentz-Baumann, A. Mercier  
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Background:

GPs sometimes base their clinical decisions on gut feelings alone, even though there is little evidence of their diagnostic and prognostic value in daily practice. Research into the significance of this phenomenon with focus groups and Delphi consensus procedure in the Netherlands provided a concept of gut feelings in general practice: a sense of alarm, a sense of reassurance and several determinants.

Research question:

Which consensus on gut feelings in general practice in France can be obtained, using the Dutch results and the same methods?

Method:

Translation of the 7 Dutch defining statements about gut feelings conducted as forward-backward translation. Qualitative research including a Delphi consensus procedure with a heterogeneous sample of 34 French GPs involved in university educational or research programs, included by a randomised selection of the associated teachers' list of General practice in France.

Results:

After three Delphi rounds, we found 70% or greater agreement on every of the ten proposed statements. A 'sense of alarm' means that the GP gets the feeling something is wrong with the patient and he therefore needs to initiate specific management to prevent health problems. A 'sense of reassurance' is defined as coherence between the patient's complaints and the doctor's clinical observations. Though the GP lacks objective facts, he feels confident, yet with caution, about the management of the patient's situation. Many similarities can be found between the Dutch and the French defining statements, with a reservation on the 'sense of reassurance', which French GPs seem to feel more cautious about.

Conclusion:

The sense of alarm' and the 'sense of reassurance' are well-defined concepts also in France, with many similarities between the Dutch and the French statements. This seems to indicate that gut feelings is a self contained concept.

PRESENTATION 15: Friday 16<sup>th</sup> October, 2009  
16.20 – 16.30 h.

ONE SLIDE / FIVE MINUTES  
Study proposal / idea

TITLE: Cardiovascular Multimorbidity in Primary Care.

AUTHOR(S): Niamh O'Brien, Liam G Glynn, Ivan Perry, Andrew W Murphy

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Background:

Established cardiovascular disease (CVD), diabetes and chronic kidney disease (CKD) are common and important diagnoses in the community. There appears to be little evidence regarding the prevalence or prognosis of cardiovascular multimorbidity in a primary care setting.

Research question:

To estimate the prevalence of cardiovascular multimorbidity (i.e. at least two of CVD, diabetes and CKD) in patients aged over 50 years in a representative Irish general practice population. To examine the healthcare utilisation and standards of care of this group of patients, relative to internationally agreed guidelines, including assessment of variation due to patient, practitioner and practice level factors.

Method:

A cross-sectional study involving a random sample of 20 of the >80 practices affiliated to the academic network of National University of Ireland, Galway. This will give a reference population of 100,000 patients and an estimated study population of 25,000 patients over 50. Data collection to commence early 2010. All three conditions will be identified over a one year period, using standardised case ascertainment methods and internationally agreed diagnostic criteria.

Results:

Following our previous pilot work in this area, we will be able to establish an estimate of the prevalence of cardiovascular multimorbidity in primary care and examine factors affecting healthcare utilisation in this patient group. The three conditions in question may be regarded as components of a major disease network responsible for over 40% of deaths in a developed country like Ireland.

Conclusions:

A reliable estimate of the prevalence of cardiovascular multimorbidity will form the basis for further research including a proposed subsequent cohort study of patients with cardiovascular multimorbidity identified in this cross-sectional study and a planned RCT of an intervention for this patient group.

Points for discussion:

1. Is there other relevant data that we should be looking to collect on this cohort of patients?
2. Additional study on self-efficacy in patients with cardiovascular multimorbidity.
3. Interventions to improve health outcomes and decrease costs associated

PRESENTATION 16: Friday 16<sup>th</sup> October, 2009  
16.30 – 16.40 h.

ONE SLIDE / FIVE MINUTES  
Study proposal / idea

TITLE: Keep it simple: Looking for undiagnosed diabetics.

AUTHOR(S): Ana Claveria, Enrique Fluiters, Victoria Miguel Martin

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**Background:**

Up to 1% of the population is thought to have undiagnosed OR unrecorded DM, and is not receiving access to well-organised systematic care and follow-up.

A percentage of undiagnosed diabetics could be fished from the results of abnormal fasting glucose ( $\geq 126$  mgr/dl) and glycated haemoglobin ( $\geq 6,5\%$ ) in laboratory test asked for any other reason by any clinical physician and / or specialty.

**Research question:**

To evaluate the effectiveness of communicating with family doctors (GP) abnormal laboratory findings to improve the recording of diagnosed DM in EMR and to decrease the undiagnosed DM.

**Method:**

Randomized controlled trial covering all National Health Service primary care physicians. Analytical results provided by the local laboratory of each GP. Intervention: Letter to physician in the intervention group suggesting a revision of the EMR in the case of known DM and / or excluded DM in patients with abnormal findings. Main outcome measure: Change in total number of registered DM prevalence, using multivariate models adjusted for baseline registered prevalence.

**Results:**

A low cost intervention can identify many patients at risk for developing complications from DM and / or improve its monitoring with the EMR.

**Conclusions: -**

**Points for discussion:**

Another teams are invited to participate and compare:

- a) Intervention to GP vs. nurses vs. patients;
- b) setting and organizational variables; and
- c) another abnormal findings in multimorbidity patients.

PRESENTATION 17: Friday 16<sup>th</sup> October, 2009  
16.30 – 16.40 h.

ONE SLIDE / FIVE MINUTES  
Ongoing study, no results yet

TITLE : Reporting a doctoral thesis protocol on “Health Needs Assessment within a Mountainous and Remote area of Crete: Focus on Eye Diseaseses”.

AUTHOR(S): Konstantinos Chliveros, M. Tsilimbaris, I. Pallikaris, C. Lionis

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**Background and Objectives:**

A comprehensive study aiming at health status assessment of the indigenous people in a mountainous village of Crete with a focus on eye diseases, was commenced in April 2008.

**Study Design:**

A cross-sectional study with an ethnomedicine methodology.

**Setting:**

A mountainous and isolated rural area with 1578 permanent inhabitants and a waterfront village with 1273 permanent inhabitants.

**Participants/Study Instruments:**

479 subjects from a mountainous village aged 40 years and over and 150 subjects from a seaside village as control group were eligible to participate. Collected data on participants' morbidity, demographics, established ICPC-2 diagnoses, somatometric measurements, and particularly ophthalmological data for Visual Acuity, Intraocular Pressure and Funduscopy. Study instruments included the Barthel and Katz Index, Beck's scale, Sense of Coherence Scale, Hopkins's Symptom Check-List (HSCL-25), the Royal Free Questionnaire for Spiritual and Religious Beliefs, the Illness Behaviour Questionnaire and the Visual Functioning Questionnaire-25 (VFQ-25).

**Expected Results:**

This project anticipates (a) to define the main health problems and eye diseases in rural Crete, (b) to understand disease determinants and models of health care utilization, (b) to formulate recommendations and practical guidelines for primary care physicians on improving quality performance and (c) to assess the health needs of people living in the area as well as plan effective intervention programs.

**Relevance to EGPRN:**

This study anticipates discussing with participants theories and research methods to study illness behaviour and assess population health needs suitable in rural and remotes areas.

PRESENTATION 18: Friday 16<sup>th</sup> October, 2009  
16.50 – 17.00 h.

ONE SLIDE / FIVE MINUTES  
Study proposal / idea

TITLE: Health related quality of life in elderly nursing home residents.

AUTHOR(S): Eva Cedilnik Gorup, Davorina Petek

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**Background:**

Health related quality of life (HRQOL) is considered to be primary goal in management of growing elderly population. Nursing home residents are more ill, frailer and more vulnerable than elderly in ambulatory care and there are indications that their HRQOL is lower than in general population. There have been few studies on HRQOL in residents in nursing homes and little is known about factors influencing it. Multimorbidity has been shown to adversely affect HRQOL in general population and ambulatory elderly, but not yet in nursing home elderly.

**Research question:**

We wish to explore quality of life in elderly nursing home residents and determine which factors contributing to it are most influential in this population.

**Method:**

In a cross-sectional study 150 nursing home residents will be invited to enrol in the study. Patients unable to answer the quality of life questionnaire due to cognitive impairment will be excluded from the study.

**Results:**

This study will be performed in the fall of 2009. We wish to find out the factors influencing quality of life in elderly nursing home residents (multimorbidity, polypharmacy, adverse drug prescriptions, physical activity, falls requiring medical care, previous hospitalisations).

**Conclusions:**

Having better understanding of factors influencing quality of life could help us improving quality of care in nursing home residents.

**Points for discussion:**

What factors contributing to HRQOL can we influence and how?

PRESENTATION 19: Saturday 17<sup>th</sup> October, 2009  
09.10 – 09.40 h.

THEME PAPER  
Ongoing study with preliminary results

TITLE: Improving incongruence in polypharmacy – results from a cluster randomized controlled trial.

AUTHOR(S): Guido Schmiemann, Alla-Maria Gurjanov, Eva Hummers-Pradier,

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Background:

Patients medication can consist of drugs prescribed by different doctors and over the counter (OTC) drugs. The extent to which the GP is aware of patients actual medication is called congruence. Especially in patients with polypharmacy (i.e >5 different drugs) a lack of congruence is a major problem. Incongruence has a proven association with therapy failure or even life threatening interactions. In this study we focus on improving congruence.

Method:

Within a cluster randomized controlled trial the impact of a multilevel intervention on congruence was assessed. Practice assistants recruited up to 16 patients (>50y, > 5 drugs) per practice. Patients medication was assessed by telephone interviews using standardized instruments, GPs were asked for the medication plan of the included patients. In the intervention group, an academic detailing regarding incongruence was conducted and GPs were offered 1) patient information leaflets 2) a tailored quality improvement session for the team. Congruence between doctor and patients in intervention and control groups was assessed by telephone after 10 month.

Results:

22 GPs took part (Response rate 15%). At the moment 215 patients (54% men) were recruited, each practice included 13 (3-18) patients taking 8.4 drugs (5-20) on a regular basis. At the beginning the congruence between doctors and patients was 65% (vitamins, herbal drugs and OTC were excluded). The team intervention was evaluated by questionnaire and rated as helpful. The final results will be available at the conference.

Conclusions:

There is room for improvement in the care of patients with polypharmacy

Points for discussion:

Problems in recruiting patients on polypharmacy

Empowerment of general practice teams to deal with polypharmacy



PRESENTATION 20: Saturday 17<sup>th</sup> October, 2009  
09.40 – 10.10 h.

THEME PAPER

TITLE: Polypharmacy and inappropriate drug prescribing in elderly nursing home residents.

AUTHOR(S): Marija Petek-šter, Eva Cedilnik Gorup, Dean Klančič

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Background:

Polypharmacy and potentially inappropriate drug prescriptions (PID) are common in nursing home residents, who are therefore at increased risk for adverse drug events. In Europe, average prevalence of polypharmacy in nursing homes was found to be 51% and of PIDs 19.8%. General practitioners in Slovenia didn't get additional geriatrics education and don't use computerized drug interaction alerts.

Research question:

Are elderly nursing home residents in Slovenia more exposed to polypharmacy and PIDs than elsewhere in Europe?

Method:

2040 nursing home residents aged 65 or over in 12 nursing homes in Slovenia were included in a cross-sectional study. Data on prescribed drugs and relevant diseases were collected and 2003 Beers criteria and ten most common drug interactions were used to determine PIDs.

Results:

Mean age was 82.0 years (SD 7.7 years), 1597 (78%) were female. Mean number of regularly prescribed drugs was 5.8, 1032 (50.6%) patients were taking more than 6 drugs at once. Patients with dementia took less, and patients with depression and those partially dependent in daily activities took more drugs ( $p < 0.001$ ). 455 (22.3%) residents had at least one PID. Males ( $p = 0.008$ ), residents partially dependent in daily activities ( $p = 0.001$ ) and patients with more prescribed drugs ( $p < 0.001$ ) were more likely to take a PID. The most common PIDs were cyclooxygenase-2 nonselective nonsteroid anti-inflammatory drugs (NSAID), a prescription of NSAID, dipyridamole, ticlopidine or clopidogrel in patients with blood-clotting disorders or patients taking anticoagulants, a prescription of the combination of digoxine and amiodarone, and the combination of an ACE-inhibiting drugs and spironolactone.

Conclusions:

Results show that drug prescribing situation in Slovenia nursing homes is similar to European average. Nevertheless, half of the elderly nursing home residents in Slovenia are exposed to polypharmacy and one fifth to PIDs.

Points for discussion:

1. Are current PID-in-elderly criteria relevant?
2. Would computerised PID-alert system reduce PIDs?

PRESENTATION 21: Saturday 17<sup>th</sup> October, 2009  
10.10 – 10.40 h.

THEME PAPER

TITLE: Undetected comorbid depression in hypertensive patients—entire approach.

AUTHOR(S): Ines Diminić-Lisica, T. Frančišković, D. Ivošević, B. Popović

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**Background:**

Depression, one of the commonest illnesses of the modern world is often unrecognised in physically ill people<sup>1</sup>. Part of the patients who suffer from arterial hypertension also suffer from depression, but the connection between these two very common illnesses is still not adequately examined

**Research question:**

1. How many hipertensive patients sufer at the same time from undetected depression?
2. Is there any difference in blood pressure level between group of depressive and nondepressive patients with arterial hypertension?
3. Does the treatment of depression with antidepressants in combination with antihypertensive therapy lead to improved blood pressure regulation?

**Method:**

The research was conducted in two family medicine practices. Using the Beck depression inventory and ICD-10 criteria for depression among the patients with hypertension and no previous psychiatric history, a group with elevated depression was recognised. Half of them formed experimental group and were taking both antihypertensive and antidepressive therapy over the course of 24 weeks while the other half was taking antihypertensive therapy only.

**Results:**

Out of 452 patients with arterial hypertension, 134 (29,64%) have been found with increased depression level. Patients with both arterial hypertension and depression had significantly higher values of systolic blood pressure (155/138 mmHg,  $Z=9,77$ ,  $p<0,001$ ) and significantly higher values of diastolic blood pressure (88/81 mmHg,  $Z=10,57$ ,  $p<0,001$ ) comparing to nondepressive patients with hypertension. After 24 weeks, 73 patients of experimental group had significantly lower values of the systolic (128/155 mmHg.

$Z = 7,42$ ,  $p<0,001$ ) and diastolic blood pressure (73/90 mmHg ,  $Z= 7,36$ ,  $p<0,001$ )

**Conclusions:**

The appliace of antidepressive therapy among patients with arterial hypertension results in a statistically significant reduction of systolic and diastolic blood pressure and a simultaneous reduction of level of depression.

**Points for discussion:**

Can we consider undetected and untreated depression a factor of risk for cardiovascular illness?

PRESENTATION 22: Saturday 17<sup>th</sup> October, 2009  
11.10 – 11.40 h.

THEME PAPER  
Ongoing study with preliminary results

TITLE: A look inside the black box: Video analysis of patient-physician consultations after a standardized geriatric assessment (STEP) in Primary Care.

AUTHOR(S): Erika Penner, C. Müller, U. Junius-Walker, E. Hummers-Pradier  
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#### Background:

The STEP-Assessment allows the multidimensional and structured collection of significant complaints and diseases of elderly patients. In the present study patients and general practitioners independently evaluate the assessed health problems with regard to their subjective priorities. The results obtained from this assessment serve as a basis for a future-oriented optimized treatment strategy which will be discussed in a consultation between patient and physician subsequent to the STEP-Assessment.

#### Research questions:

How is this specific consultation between patient and physician actually structured? Which health problems are actually discussed and which not? What are the resulting treatment strategies?

#### Method:

We used video documentation of 36 patient-physician consultations taking place directly after the STEP-Assessment in the practice. Structure and content of these consultations were assessed and qualitative analyzed considering the formal, verbal and nonverbal factors.

#### Results:

We expect complete statements regarding:

- formal procedure of consultations (duration, sequence of topics)
- which health problems are addressed and which not
- how newly identified problems are managed
- if the treatment strategy reflects the rating of health problems
- who of the two participants decides about type and extent of the planned interventions
- for which health problems interventions are scheduled and for which not.

#### Conclusion:

A better insight about the sequence and events occurring during discussion of the STEP-Results and the arising treatment strategies will be obtained and utilized to further optimize this geriatric assessment as a structured element of care for the elderly patients by their general practitioners.

#### Points for discussion:

1. Of what effect are patients' subjective priorities on the emerging treatment plan?
2. To your opinion and experience: what are factors that make doctors ignore health problems in their consultation?
3. How best to present assessment results.

PRESENTATION 23: Saturday 17<sup>th</sup> October, 2009  
11.40 – 12.10 h.

THEME PAPER  
Ongoing study with preliminary results

TITLE: Hyperuricemia and its comorbidity.

AUTHOR(S): Jasna Vučak, Milica Katić, Biserka Bergman Marković  
Davorka Vrdoljak, Ksenija Kranjčević, Dragica Ivezić-Lalić

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#### Background:

Hyperuricemia (HU) is often associated with other cardiovascular (CV) risk factors. There are evidence of its association not only with hypertension but with diabetes (DM), metabolic syndrome (MetS), psoriasis, myocardial infarction (MI), stroke and some malignancies. For better understanding of the role of HU as CV risk factor further studies are needed.

#### Research question:

Does comorbidity of HU with DM, coronary disease, stroke, hypertension and malignancies really exist? Are there any differences in HU prevalence among Croatian regions (coastal, continental)?

#### Method:

Multicentric, prospective, randomized cohort study in 64 randomly assigned GP practices is conducted. Randomly assigned patients aged  $\geq 40$  years (till No 55 per GP, 1466 in total) are included during three months period. Two questionnaires were composed and validated (socio demographic and anthropometric data, SF-12, lifestyle factors, comorbidity, current medication, BP, BMI and WHR) for the purpose of this study.

#### Results:

HU frequency in total sample was 164/1466 (11.2%; 95% CI=9.6%-12.8%). Frequency of HU (serum uric acid level  $>420\text{mmol/l}$  in men was 81/540 (15.0%; 95% CI=12.0%-18.0%), and statistically occurred significantly more often in men than women (Fisher's Exact Test,  $p=0.001$ ). No statistically significant differences in HU between coastal (10.8%) and continental (11.3%) Croatian regions were found (Fisher's Exact Test,  $P=0.738$ ).

Prevalence of HU was significantly statistically associated with hypertension (OR: 1.73;  $P=0.003$ ), DM type II (OR: 1.60;  $p=0.031$ ), malignancies (OR: 2.2;  $P=0,031$ ), MetS (OR: 1.85;  $P=0,028$ ), obesity (OR: 2.04,  $P=0.047$ ), and hypertriglyceridemia (OR: 1.74;  $P=0,002$ ).

#### Conclusions:

These preliminary results showed the existence of comorbidity of HU with hypertension, DM type II, malignancies, MetS, obesity and hypertriglyceridemia but the further investigation of this kind of association is needed. Our study did not show differences in the HU prevalence between coastal/continental Croatia.

#### Points for discussion:

1. Is there significant regional difference in HU between patients with similar characteristics (age, gender, diet, alcohol use) in other countries?
2. Is there significant comorbidity of HU with other diseases: diabetes, coronary disease, stroke, maligna.

PRESENTATION 24: Saturday 17<sup>th</sup> October, 2009  
12.10 – 12.40 h.

THEME PAPER

TITLE: Chronic respiratory disease: what proportion of adults have multimorbidity? An exploratory study in a general practice setting.

AUTHOR(S): Siobhan O'Kelly, Susan Smith, Stephen Lane, Conor Teljeur  
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Background:

Multimorbidity is defined as two or more co-existing chronic illnesses in an individual. Chronic respiratory conditions are among the most common conditions in studies on multimorbidity. The aim of this study was to explore the prevalence of multimorbidity among patients with chronic respiratory disease in a general practice setting.

Research question:

What proportion of adults with chronic respiratory disease in a general practice setting have multimorbidity?

Methods:

Drug and disease searches were performed using the computer database in three general practices by a clinical (GP) researcher in order to identify adult patients aged 18 years or more with a documented diagnosis of chronic respiratory disease. The medical records were reviewed for demographic characteristics, GP utilisation rates and numbers of medications

Results:

Sixty per cent (393/653) of the adults with a chronic respiratory condition had one or more co-existing chronic condition(s). Twenty four per cent (159/653) of the total sample with chronic respiratory disease have one additional chronic condition, 20% (130/653) have two additional chronic conditions, and 16% (104/653) have 3 or more additional conditions. As expected, the proportion of patients with multimorbidity increased with age with those aged 18-29 years, 27% (41/150) have multimorbidity. Among those aged 65 years or more 89% (127/142) have multimorbidity. The most frequently documented co-existing chronic conditions documented were: anxiety/depression 28% (110/393), hypertension 27% (107/393), cardiovascular disease 27% (108/393), musculoskeletal disorders 23% (89/393), endocrine 20% (77/393) disorders and gastro-intestinal disorders 17% (61/393).

Conclusions:

60% of adults with a chronic respiratory condition in this study have one or more additional chronic conditions. This represents a big disease burden for patients and their doctors with chronic respiratory disease being part of the burden. Chronic disease management will increasingly have to take disease complexity on board.

PRESENTATION 25: Saturday 17<sup>th</sup> October, 2009  
14.00 – 15.15 h.

POSTER

TITLE: The approach in multimorbidity.

AUTHOR(S): Gergana Foreva, Radost Asenova, Kiril Elenski  
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**Background:**

Multimorbidity is defined as the co-existence of two or more long-term conditions in an individual. Epidemiological data demonstrate vast growth of the multimorbidity related to the increase of life continuance and prevalence of the chronic conditions. Multimorbidity is the norm rather than the exception in primary care patients. Literature review brings out appointed challenges as the individual importance; the interdisciplinary communication; the integration of all treating processes and competing guidelines for individual conditions.

**Research question:**

The aim of the study is to present the example of the multimorbidity solving approach according to the Bulgarian health care system rules and their implementation in the practice.

**Method:**

A retrospective five-year period of study on electronic records in the general practice and on accepted normative documentation.

**Results:**

The average number of 1886 people are in the patient's list of the selected practice during the five year-period; the demographic profile repeats normal Gaussian distribution. Average 25,02% of the patients have two or more long-term conditions. The Ordinance #39 MoH initiates rules for inquiring, monitoring, treatment and social adaptation to the lists of chronic conditions; the minimum consultation duration; the documentation exchange between medical specialists

**Conclusions:**

The presented example finds similar spreading of the multimorbidity prevalence in "average" Bulgarian general practice as in the published statistical data from other European countries. The administrative approach is applied in health care system to support the communication, coordination and continuity of the care for multimorbid patients.

**Points for discussion:**

The key role of GPs in multimorbidity as coordinator on public health and individual patient level.

PRESENTATION 26: Saturday 17<sup>th</sup> October, 2009  
14.00 – 15.15 h.

POSTER

TITLE: Comorbidity in the diabetic patient.

AUTHOR(S): Alba Cuberas Mas, Anna Soler Costa, Núria Busquet Solé  
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**Background:**

Primary Care role is essential in the prevention and early diagnosis of chronic kidney disease (CKD) as a cardiovascular factor risk in the diabetic patients

Research question:Aims: to determine the prevalence of the chronic kidney disease (CKD) in diabetic patients and its register.Secondary: to stage the CKD

**Method:**

Cross-over study in an Urban Primary Health Care Centre (24,000 inhabitants)

Subjects:all diabetic patients receiving attention from 5 General Practitioners Teams that make the follow up at the centre (551 patients)

Measures: sex, age, smoking, body mass index, abdominal perimeter, dyslipaemia ,hypertension (HTA), ischemic cardiopathy, vascular brain disease (VBC),peripheral arteriopathy,left ventricular hypertrophy (LVH), CKD, plasmatic creatinine,glomerular filtration (GF-MDRD),albumin/creatinine coefficient, HbAc1. CKD-stage classification. Statistical analysis: SPSS 15.0 programme.

**Results:**

551 diabetics; 50,6% female;mean age 68 years old (DE 11,1); 11,6% smokers; 10,6% ex-smokers; 43% obese; 58,1% dyslipaemics; 70,2% hypertensive (54% poor control); 13% ischemic cardiopathy, 7,6% VBC; 5,6% peripheral arteriopathy; 3,8% LVH; 6,2% registered diagnosis of CKD. 67,5% HbAc1 below 7; 18% between 7 and 8. There is no GF calculation in 12,5% patients. 24,1% patients have no alb/creatinine coefficient registered. CKD prevalence of 22,49%; CKD stage classification: 6,9% 1 and 2 initial stages; 14,5% Stage 3; 0,9% Stage 4; 0,18% Stage 5.

**Conclusions:**

A low register of CKD was observed. A high prevalence of CKD was detected in diabetics in spite of the lack of data for the diagnosis. The 3 Stage is the most prevalent. The cardiovascular risk factors more associated to diabetic patients are the HTA, dyslipaemia and obesity. Half of the hypertensive patients presented a poor control.The metabolic control is optimal in most of the patients.

There is a need to determine the albumin/creatinine coefficient and the GF for the early diagnosis of the CKD, as well as to optimise the HTA control in order to prevent the progression.

**Points for discussion:**

We have the perception that the CKD is usually forgotten in the diabetic patient, do you think so?

PRESENTATION 28: Saturday 17<sup>th</sup> October, 2009  
14.00 – 15.15 h.

POSTER

TITLE: How to enhance percentage and accuracy of encoded registration?

AUTHOR(S): Philippe Ryckebosch<sup>1,2</sup>, J. Brouns<sup>1</sup>, J. Goris<sup>1</sup>, B. Michiels<sup>3</sup>, H. Philips<sup>3</sup>  
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**Background:**

The General Practitioners' out-of-hours service centre in Deurne and Borgerhout was a Belgian pilot project. After the project had run for three years, we had to prove its benefit for the community. In order to do this, we needed encoded data.

**Research question:**

How can we enhance the percentage and the accuracy of the encoded registration?

**Method:**

We developed a new software for the centre, the HWP-Mailer. First the Reason For Encounter (RFE) and the diagnosis were registered using ICPC (version 1). Next we used ICPC2 - ICD10 (Wonca) and the Belgian version of the Thesaurus. In a new codification module we offered the GPs on call a preselected list of RFEs and diagnoses (version 2). Finally, we introduced separated preselected lists (version 3).

**Results:**

We analysed 47632 patient contacts. 86,75 % of the RFEs and 84,74 % of the diagnoses were registered by the GPs on call. From the chi-square test we see that the percentage and the accuracy of the encoded registration by the GPs gets higher with every new introduction. For the diagnosis: version 2 versus 1: OR 2,59 (95% CI 2,44 – 2,75); version 3 versus 2: OR 1,31 (95% CI 1,22 – 1,40); version 3 versus 1: OR 3,17 (95% CI 2,98 – 3,38). After review by the administrator, 97,67 % of the RFEs and 98,12 % of the diagnoses are registered.

**Conclusions:**

The percentage and the accuracy of the encoded registration can be enhanced by using a Thesaurus linked with ICPC and ICD, and by using preselected lists.



PRESENTATION 29: Saturday 17<sup>th</sup> October, 2009  
14.00 – 15.15 h.

POSTER

TITLE: Combating Obesity. Knowledge, attitudes and the daily routine of Hungarian general practitioners.

AUTHOR(S): Péter Torzsa, Andrea László, Ajándék Eőry, László Kalabay

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**Aim:**

The obesity pandemic is a major problem in Europe. 40% of the Hungarian population is overweight, and 20% is obese. General practitioners (GPs) have a significant role in preventing and diagnosing weight problems.

**Methods:**

To describe the current knowledge, 160 GPs (40% male; age 53+/-6.8 years) filled out a validated questionnaire about their attitudes and opinions regarding obesity, any relevant knowledge and daily practices. The anthropometric data of the GPs were also recorded.

**Results:**

96% of the GPs are aware of the fact that obesity is a risk factor for several other diseases, and 94% use weight loss programs with patients. 61% do not know the exact Body Mass Index (BMI) criteria of obesity, but 77% use BMI as a diagnostic method. However, only 23% of them measure the waist. 74% of the GPs targeted more than 15% weight loss as an objective for overweight or obese patients. Most of the GPs rated food intake as a significantly higher risk factor for obesity than stress, hormonal problems or unemployment. Generally, a GP applies weight loss programs for seven patients per month, with an average consultation time of 10 minutes in each case. This treatment is successful in 9% of cases. 49% of the sample do not feel well prepared in treating obese patients, especially male doctors (57% vs. 47%,  $p < 0.01$ ). A negative correlation is shown between GPs' body mass indexes and their attitudes towards obese patients ( $r = -0.22$ ,  $p < 0.001$ ), while the number of their specialization has positive correlation with their attitudes ( $r = 0.091$ ,  $p < 0.001$ ). In addition, the weight loss program is less effective in the case of obese GPs (5% vs. 12%,  $r = 0.22$ ,  $p < 0.001$ ).

**Conclusions:**

The knowledge of Hungarian GPs regarding the causes of obesity, its associated dangers and its appropriate diagnostic methods is not sufficiently developed. Furthermore, unrealistic weight loss objectives for patients also impede satisfactory outcomes. A large number of GPs do not feel adequately prepared to oversee a successful weight loss program and require interactive training, based on practical experiences.

**Points for Discussion:**

1. How we could improve the GP's attitudes towards obesity?
2. What kind of training program would be the most effective?

PRESENTATION 30: Saturday 17<sup>th</sup> October, 2009  
14.00 – 15.15 h.

POSTER  
Ongoing study, no results yet

TITLE: Life with a chronic illness – patients' experience.

AUTHOR(S): Mladenka Vrcic-Keglevic, Goranka Petricek, J. Buljan, G. Prljevic  
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**Background:**

It is argued that too much emphasis has been placed on treatment oriented medical care models, while not enough attention has been given to issues relating behavior and experience that people with chronic illness actually live through.

**Research question:**

To describe diabetes mellitus type 2 (DMT2) or myocardial infarction (MI) patients experience in confronting, getting acquainted with, accepting and living with those chronic illnesses.

**Method:**

The mixed-method research with triangulation design will be used. In the qualitative research part, 64 patients (32 DMT2 and 32 IM) will be purposefully sampled by 16 randomly selected general practitioners (from three Zagreb Health Centers), and interviewed in depth by the same researcher. All semi-structured depth interviews will be audio taped and transcribed. The main researcher and three independent researchers will achieve consensus of qualitative data analysis based on the grounded theory principles. In the quantitative research part, using standardized questionnaires, data on illness perception, health locus of control, quality of life and social support will be collected from the same 64 patients. Statistic analysis will be done using Statistica, version 7.1 statistic program. After finishing qualitative and quantitative analysis, the convergence or divergence of the results will be discussed and interpreted.

**Results:**

Although DMT2 as well as MI patients' life is influenced by their illnesses, we expect that MI patients in the process of confronting, getting acquainted with, accepting and living with their chronic illness face greater need for alterations in everyday life. Further more, they are gravely affected by their illness, and adapt harder to it than DMT2 patients.

**Conclusions:**

A comprehensive understanding of the patient adaptation process could help in caring for chronic patient during their getting acquainted with numerous uncertainties and help them in finding the right way to cope with the stress arising from having a chronic illness.

**Points for discussion:**

1. Inclusion criteria for a purposeful sampling will be: type of illness (DMT2 or MI), illness duration (2-5 years), patient age (45-65 years), illness duration (2-5 years), sex (male, female) and good informer characteristics.

PRESENTATION 31: Saturday 17<sup>th</sup> October, 2009  
14.00 – 15.15 h.

POSTER

TITLE: Empathy in Primary Health Care.

AUTHOR(S): Luís Filipe Cavadas, Marlene Sousa, António Macedo  
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Background:

Empathy is a crucial skill for the development of therapeutic relations in General Practice. It is shown that an empathic relation improves the doctor - patient relation, increases satisfaction and diagnostic ability and empowers patients to deal with their illness.

Research question:

How empathic are General Practitioners (GP) in a portuguese Primary Health Care Practice (PPHCP)? Is there a relationship between empathy and sociodemographic characteristics of patients?

Method:

A cross-sectional study was conducted in patients who came to their GP at a PPHCP during June 2009. The self-administered Consultation and Relational Empathy (CARE) questionnaire was applied to evaluate empathy. Sociodemographic data were collected [gender, age, level of education, occupation, and type of appointment (scheduled / no scheduled)]. Associations between variables were tested with nonparametric tests (Mann-Whitney, Kruskal-Wallis and Pearson Correlation) using SPSS software. The adopted significance level was 0,05.

Results:

The authors obtained a sample of 353 questionnaires. Of these, 245 (69,4%) were from female patients, 214 (60,6%) from patients with a scheduled appointment with their GP (21 GP were evaluated). Respondents' mean age was 47,5 years (minimum of 9 and maximum of 83). The mean score for empathy was 41,1 (CI 95%: 40,1- 42,2) with a minimum of 10 and a maximum of 50 points. From the application of nonparametric tests the only statistical significant association was with level of education ( $p = 0,017$ ). Patients with less than four years of formal education gave lower scores for GP empathy.

Conclusions:

Our results demonstrate that the GP from this PPHCP scored high for empathy with their patients. Patients with low level of education gave lower scores for GP empathy. This association was not found in other studies in Primary Health Care, requiring confirmation.

Points for discussion:

1. Importance of empathy in doctor-patient relationship and in the improvement of patients health
2. Relationship between empathy and level of education
3. Measures to improve the degree of empathy

PRESENTATION 32: Saturday 17<sup>th</sup> October, 2009  
14.00 – 15.15 h.

POSTER

TITLE: Impact of co-morbidity on patient's choice of primary health care provider.

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Background:

New reforms in Sweden aim to introduce the opportunity for patients, especially in urban areas, to choose a family physician. The idea behind this is to increase access to primary health care (PHC). To what degree health status influences the patient's choice of public or private health care is still largely unknown.

Research question:

To investigate if co-morbidity was of importance for a population's choice of listing with either a public or a private PHC practice.

Method:

A subpopulation (11,223 patients) of all patients listed with two PHC practices in the municipality of Ronneby in Blekinge County in southern Sweden was studied. The listing/re-listing behaviour of the population in this closed cohort was studied at two points in time, 1 October 2005 and 1 October 2006, with respect to age, gender and level of co-morbidity as measured by the Johns Hopkins Case-Mix system.

Results:

Patients listed with the public practice both on 1 October 2005 and one year later were significantly older and had a higher degree of co-morbidity than patients listed with the private practice. Patients with a higher degree of co-morbidity were more likely to re-list or to stay listed with the public practice. Patients who most often chose to re-list during the study period were male and younger patients.

Conclusions:

With this study we have shown the possibilities of using a measure of co-morbidity to investigate patient's choice of PHC provider that can help us understand more about the chronically ill patient's choice of healthcare provider.

PRESENTATION 33: Saturday 17<sup>th</sup> October, 2009  
14.00 – 15.15 h.

POSTER  
Ongoing study with preliminary results

TITLE: Are there differences in frequency of MS in population 40+ enlisted for GP in Croatia?

AUTHOR(S): Dragica Ivezić-Lalić, Biserka Bergman Marković, Davorka Vrdoljak  
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**Background:**

Metabolic syndrome (MS) is recognized as clustering of cardiovascular risk (CV) factors in abdominally obese persons. CV diseases are its most important clinical manifestation. MS has reached epidemic magnitude over past five decades, which is concerning.

**Research question:**

To identify occurrence and possible regional differences in MS frequency in Croatian population aged  $\geq 40$  years, enlisted for general practitioner (GP).

Method: 1873 subjects from 59 GP practices were included. Every GP chose systematic random sample of 55 subjects who visited him/her for whatever the reason from June to August 2008.

Questionnaire was composed for the purpose of the study, previously validated and used.

Sociodemographic data, anthropometric measurements and data on laboratory blood and urine analyses were collected. MS was diagnosed according to International Diabetic Federation (IDF) criteria.

**Results:**

Out of 1873 subjects, 1072 (57,2 %) were diagnosed with MS, 416 (61,5% ) men and 656 (58,9%) women, with no statistically significant difference (SSD) in gender. However, there was SSD in MS frequency in favor of continental part of Croatia 637 (63,2%) compared to coastal region 435 (55,5%); (LR=10.6, df=1; P<0.001). In Zagreb region MS frequency 499/773 (64,6%) was statistically significantly higher than in Osijek 138/235 (58,7%), Split 334/553 (60,4%) and Rijeka region 101/231 (43,7%) (LR=031.8; df=3; P<0.001).

**Conclusion:**

Our results demonstrate MS as a prevalent condition in Croatian GP practices. Differences in MS geographic distribution are significant, higher in continental compared to coastal region.

Development of national guidelines for MS prevention, diagnostic and comprehensive care and their implementation in GP's everyday practice are a necessity.

**Points for discussion:**

1. What are experiences of GPs in other European countries in MS prevention, diagnostics and medical care?
2. Are there clearly developed guidelines on MS and how are they implemented in practice in other countries?

PRESENTATION 35: Saturday 17<sup>th</sup> October, 2009  
14.00 – 15.15 h.

POSTER

TITLE: The prevalence of malnutrition among nursing home residents.

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Background:

Malnutrition is a frequent problem among elderly living in nursing homes. It is an independent risk factor for morbidity and its complications. An accurate diagnosis and follow up is needed. There is no consensus about the definition and clinical diagnosis of malnutrition.

Research question:

To identify existing definitions of malnutrition, including the parameters, which are involved.  
To measure the prevalence of malnutrition among nursing home residents.

Method:

This cohort study is grafted onto a clinical trial in 737 participants in 53 nursing homes in the Antwerp region (Belgium). Monthly during 5 months, clinical parameters (weight and BMI) were registered and participants were asked to complete validated malnutrition questionnaires, the Nutritional Risk Score (NRS) for assessment and the Mini Nutritional Assessment Short Form (MNA-SF) for screening elderly at risk. A blood sample for proteins (albumin, pre-albumin and transferrin) was taken at the beginning of the study. For 148 participants all scores and parameters were registered.

Results:

In literature different definitions of malnutrition are proposed, based on different parameters, such as proteins, questionnaires, weight and body composition. The percentage of malnutrition in this study cohort based on the NRS, weight loss, BMI, albumin, pre-albumin and transferrin are respectively 2.7%, 7.4%, 3.4%, 1.4%, 0.7% and 0.7%. With the MNA-SF 53,4 % of the screened population was at risk for malnutrition.

Conclusions:

Based on the different definitions of malnutrition the percentage of participants with malnutrition varied from 0.7% to 7,4%. MNA-SF may be used as a screening instrument but further research is needed to find a consensus about the definition of malnutrition and to develop a screening instrument specific for primary care.

Points for discussion:

1. Which definition/assessment procedures for elderly malnutrition are used in other countries?
2. How relevant is the development of a specific screening instrument for primary care?

PRESENTATION 36: Saturday 17<sup>th</sup> October, 2009  
14.00 – 15.15 h.

POSTER

Ongoing study with preliminary results

TITLE: Injuries in patients starting long-distance running: implications for the GP.

AUTHOR(S): Tiny van Merode, F. Hartgens, M. Twellaar

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Background:

Recently exercise and especially long distance running have been promoted as a cure against all diseases: from chronic disease like diabetes and COPD, through method of losing weight, to prevention or treatment of depression. The average GP has not much knowledge of the injuries starting runners are prone to, nor about the typical novel runner most at risk.

Research question:

What injuries occur in novel long distance runners after shorter ( 6 weeks) and longer (6 months) training?

Method:

349 starting long distance runners that participated in the bi-annual campaign "Start-to-Run" in the province of Limburg in the south of the Netherlands, completed 3 questionnaires on their characteristics and possible reasons for dropout of the programme. The injuries registered resp. 6 weeks and 6 months after starting the programme were linked to their characteristics.

Results:

Men with a high BMI were more prone to injuries. Type of injury could sometimes be related to training methods: more shin splints occurred with persons training on a gravel track as compared to those training on softer underground like forest paths.

Conclusions:

GP's probably will get more questions from patients about exercise and injuries now exercise is promoted for better health. Novel long-distance runners are prone to injuries like knee problems, achilles tendinosis and shin splint. Probably former experience with exercise, female sex and low BMI protect against injuries.

Points for discussion:

Knowledge in GP's of sport injuries

PRESENTATION 37: Saturday 17<sup>th</sup> October, 2009  
14.00 – 15.15 h.

POSTER

Ongoing study with preliminary results

TITLE: Family Medicine Residents' Views on professionals attitudes and values and the training in this area.

AUTHOR(S): José Loayssa Lara, C. Fuertes Goñi, R. Ruiz Moral, A. Arillo, F. Barcena

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**Background:**

There have been worries about the development of attitudes and values during the family medicine (FM) residency training. In Spain, there has been little research on this dimension and while a new national residency program has just been set up it is an opportune moment to take on this task.

**Research question:**

What are FM residents' views about professional attitudes and values and their teaching and training they received in this area?

**Method:**

Six focus groups, with 34 first year and 22 last year residents, were carried out in three different residency programs. To complete the information, 14 last year residents were interviewed. Discourses were audio recorded, transcribed and analyzed inductively and independently by two different researchers. Disagreements were solved by consensus with the assistance of a third researcher. In the case of interviews, the analysis focused on identifying new ideas not present in the group discourses.

**Results:**

Residents view professional behaviour related to "good manners" during consultation. Empathy and listening are highlighted. Ethics is only named marginally. They acknowledged the observation of good and bad examples and their influence, but do not value much formal training and declared that tutor supervision does normally address this topic. They justify to some degree the pitfalls in professional behaviour because doctors' working conditions. Attitudes and values are seen as related to proper relations to patients and to humanistic conduct.

**Conclusions:**

Residency programs should reconsider their teaching approach and more emphasis should be given to informal influences and to encourage residents to acquire a more complete view on attitudes and values its importance and determinants.

**Points for discussion:**

1. What influences the development of attitudes and values during family residency training?
2. What is the role of formal teaching and of ethics education?
3. What developments and modifications of the residency programme should be considered?



PRESENTATION 38: Saturday 17<sup>th</sup> October, 2009  
14.00 – 15.15 h.

POSTER

Ongoing study with preliminary results

TITLE: Effectiveness and rural vs. urban differences in postcoital hormonal contraception (PCHC).

AUTHOR(S): María José Nieto Seoane, María José Lopez Cortiñas  
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Background:

To evaluate the effectiveness of the accessibility of postcoital pill comparing the differences between rural and urban.

Research question:

To understand whether the improvement in the accessibility of PCHC has decreased the number of abortions (voluntary interruption of pregnancy) and to compare the differences between rural and urban users.

Method:

We performed a multicenter observational study across 20 dispensing services in a primary care area. We recruited 2731 women attended from April 2006-December 2007 and we recorded age, contraceptive use, date and place of delivery, prescription cause, previous usage and number of abortions

Results:

The mean age was 24 years. Most of prescriptions of PCHC are clustered around Mondays (21%). The most frequent reason for prescription was the rupture of the condom (84.2%) and 32.5% of patients previously used the pill. The monthly rate of supply was 21.31 per 10,000 women. Attendance in urban and rural health centers was of 0.72% and 0.43% respectively. We observed a 12% reduction in the number of abortions performed over the same period in previous years. We found significant associations between health centre settings, age and day of week in which PCHC was prescribed. Significant statistical differences also exist between rural and urban settings in respect of day of prescription, use of contraceptive method, reason for prescription, previous usage, age and health centre.

Conclusions:

We have found a 12% reduction on the numbers of voluntary interruption of pregnancy performed in the health area. Rural women requesting PCHC are older and demand the pill predominantly on Sundays. Moreover, in the rural settings women use more contraception methods and previous use of PCHC is low.

PRESENTATION 39: Saturday 17<sup>th</sup> October, 2009  
14.00 – 15.15 h.

POSTER

TITLE: Effectiveness of training interventions for family doctors on a cohort of patients with Type 2 Diabetes in a rural health centre.

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Background:  
diabetes management.

Research question:  
To evaluate the effectiveness of training interventions for family doctors on a cohort of diabetic patients.

Method:  
We implemented and developed 3 training interventions with workshops for the diagnosis and management of Diabetes, clinical management of diabetic foot and clinical practice guide usage. A prospective observational study of a cohort of Diabetic patients over a 9 months period was performed after training interventions. We recruited 433 patients with diabetes. We ask for health care professional birth date and gender; also height, constants, abdominal perimeter, systolic and diastolic blood pressure readings, total cholesterol, hemoglobin level in the last 6 months, clinical exploration of foot, diet, oral antidiabetics, insulin type, blood pressure medication, use of statins, use of aspirin, oral antiagregant and anticoagulant use from our cohort of patients.

Results:  
The cohort mean age was 71.14 years with no sex bias. The number of patients with hypertension rose 4.62%, the mean BMI rose by 2.48%. The number of patients on a diet rose by 10.96%. Control of blood pressure and BMI increased 0.19% and 1.88% respectively. In the last six months of the study we found a 27% increase in reporting HbA1c and a 113% increase in the exploration of the diabetic foot. There is a decrease of 1.91% on figures for total cholesterol. We found a 19% increase in the usage of ACE inhibitors and a 5.10% increase on metformin usage. The use of angiotensin receptor blockers, repaglinide and miglitol was reduced by 13%, 40% and 92% respectively.

Conclusions:  
Interventions in professional training are shown effective in the management of Type 2 Diabetic patients with an increase in both, screening for HbA1c and the exploration of the diabetic foot. We also showed the occurrence of major changes in drug prescription and management after the training interventions.

Points for discussion:  
Improvement diabetes management.

PRESENTATION 40: Saturday 17<sup>th</sup> October, 2009  
14.00 – 15.15 h.

POSTER

Ongoing study with preliminary results

TITLE: Opinions of health care staff on a new collaborative care approach to treat depressive disorder in general practice: a qualitative study.

AUTHOR(S): Hanna Jellema, Els Licht, Klaas Huijbregts, Siska de Jong  
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**Background:**

Depression is a common disorder in the Netherlands. Studies show that the treatment of depression in the primary care is suboptimal. Earlier research in the USA and the UK has shown good results in the treatment of depressive disorder based on a collaborative care approach. This approach, incorporating a Problem Solving Treatment and antidepressants, is being applied and evaluated against standard clinical care in a two-armed randomised-clinical trial across 40 general practices.

**Research question:**

This study runs in parallel to the randomised-controlled trial described above. It seeks to investigate opinions of general practitioners (GPs), care managers and decision makers in primary care on the collaborative care approach in the treatment of depression in general practice, and possible barriers to its implementation.

**Method:**

Data has been collected in detailed interviews of health care staff involved in the collaborative care project, including GPs, care managers, and decision makers. A content analysis (using AtlasTi-software) is being used to interpret our findings.

**Results:**

Full analysis is still in progress, but preliminary findings suggest that health care staff are supportive of the collaborative care approach and believe it represents an improvement on current care models. Perceived barriers to its wider implementation include difficulty in recruitment of care managers, uncertainty over its financing.

**Conclusions:**

The optimism of health care staff and decision makers over a collaborative care approach will have to be evaluated against its clinical outcomes in the treatment of depressive disorder in general practice. In response to their concerns, we need plans on how to recruit more care managers, and how to finance such an approach. Solutions for this will improve chances for implementation of this intervention.

**Points for discussion:**

So far the collaborative care approach has shown good results in both the USA and the UK in the treatment of depressive disorder. However, an effective intervention will not improve care without implementation in daily practice. Therefore, it will be inte

PRESENTATION 41: Saturday 17<sup>th</sup> October, 2009  
14.00 – 15.15 h.

POSTER

Ongoing study with preliminary results

TITLE: Outcomes and efficacy of methadone substitution treatment of opioid-dependent users in family medicine.

AUTHOR(S): Hrvoje Tiljak, Venija Cerovecki, Dragan Soldo, Natasa Buljan  
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Background:

Opiate addiction is a chronic disease with repeated episodes. General practitioner (GP) plays a crucial role in early detecting, treatment planning and longstanding monitoring of patient suffered by opiate addiction.

Research question:

To evaluate efficacy of methadone substitution treatment of opioid-dependent users in family medicine.

Method:

The study was carried out in New Zagreb area, from 1995 to 2007, in association with 60 teams of GP's. Informations about age, gender, addiction period, patient's age in the beginning of treatment with methadone, initial methadone dosage, daily methadone dosage, following of the treatment rules, method of treatment administration, behaviour towards the medical staff, criminal record, employment and abstinence information were collected via direct contact with the GPs who had patients in the methadone maintenance treatment programme, as well as through patients medical records assessment.

Results:

Among the treated drug addicts there were 255 (81.73%) men and 57 (18.27%) women. Average age of the addicts at the end of research period was 34.9±6.9 years. Average age of the addicts at the beginning of the treatment was 26.3±6.4 years. Average heroin addiction period before the beginning of the treatment was 6.3±4.7 years. Average daily dosage at the beginning of the treatment was 50 mg of methadone and at the end of the research it was 55 mg. At the end of this evaluation of efficiency of maintenance treatment with methadone the GPs estimated that 29 (9.29%) addicts were in remission without treatment and 135 (43.27%) were in remission with treatment.

Conclusions:

Drug addicts medical care and treatment approach should be based on the principles of chronic diseases patients care.

Points for discussion:

1. Comorbidity in opiate addicts
2. Monitoring treatment outcome
3. Outcome measurement in comorbidity

PRESENTATION 42: Saturday 17<sup>th</sup> October, 2009  
14.00 – 15.15 h.

POSTER

TITLE: The Diagest 3 GP research programme: why don't GP's get involved a research program in their patient's interest?

AUTHOR(S): Christophe Berkhout, M. Vandaele, S. Robert, S. Lespinasse  
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Background:

Patients with gestational diabetes (GD) are at risk of 10% to develop type 2 diabetes in the 3 years following childbirth. The aim of the Diagest 3 study was to lower this risk by 10% by a patient education programme dispensed in their local hospital. 80% of the patients didn't sustain the programme. GP's were asked to motivate their patients, but they didn't get involved. Why?  
Method: Qualitative exploratory ground based study with data collection by face to face interviews and on the results based postal questionnaire.

Results:

All GP's thought that hospital practitioners denied their skills to follow-up patients with GD. 4 profiles were defined: obedient GP's who shared this opinion, resigned GP's who accepted this opinion, rebel GP's who didn't bear this opinion and activist GP's who struggled against this opinion. The first 50 returned questionnaires found 1 obedient, 13 resigned (21%), 43 rebels (69%) and 5 activists. Activists, followed up by rebels, were the most likely to motivate their patients to share the education programme. Obedient and resigned GP's generally hadn't even memorized their patient's GD.

Points for discussion:

What is your opinion about the skills of GP's to follow up patients with GD?

PRESENTATION 43: Saturday 17<sup>th</sup> October, 2009  
14.00 – 15.15 h.

POSTER

TITLE: Chronic peripheral neuropathic pain: an epidemiological survey in general practice.

AUTHOR(S): Marco Cambielli, Nicola Buono, Ferdinando Petrazzuoli

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Background:

Neuropathic pain (NP) is a chronic pain condition arising from injury or disease of the peripheral nervous system. There are many illnesses which might cause chronic peripheral neuropathic pain (CPNP) and its prevalence and incidence in Italy is unknown

Research question:

To assess the prevalence of the diseases which determine CPNP; To verify the association between CPNP and its co-morbidities.

Method:

A multicentric observational study was carried out in the North of Italy. Patients with NP who entered (during three months) in the 113 GPs surgery were examined and invited to fill in DN4 questionnaire. NP was calculated using the Visual Analogue Scale (VAS).  
Statistic analysis was performed using Epi-Info.

Results:

453 subjects, 259 females and 194 males were considered eligible. CPNP was present in 178 (39,3%) diabetics, 136 (30%) post-herpetic, 41 (8,6%) with trigeminal pain and 98 (22,1%) with other diseases. The whole prevalence of CPNP was 3,88 %. Co-morbidities were: low sleeping quality (23,4%), anxiety (40,1%), depression (23%) and insomnia (31,1%). In our study there wasn't relationship among diabetes, post-herpetic and co-morbidities but there was a positive association among CPNP, age (diabetes; OR 1,02; CI 1,01-1,04; p 0,001- post-herpetic; OR 1,01; CI 1,0-1,03; p 0,04), obesity (OR 3,12; CI 1,92-5,06; p 0,001) and sex (OR 1,82; CI 1,15-2,86; p 0,009).

Conclusions:

Our study shows that age, sex and obesity might influence the arise/worsening of CPNP but not in all subjects. In fact while the age is related with both diabetics and post-herpetics, female sex and obesity are related only with diabetics. Obesity seems to be more influenced by diabetes then CPNP.

Points for discussion:

1. Is the prevalence/ incidence of this disease known in your countries?
2. Do the co-morbidities influence the cause of the CPNP in your daily practice?
3. Would there be the possibility of a collaborative study to verify a real incidence of this illness in Euro

PRESENTATION 44: Saturday 17<sup>th</sup> October, 2009  
14.00 – 15.15 h.

POSTER

TITLE: Warfarin prescription and INR levels in patients with atrial fibrillation.

AUTHOR(S): Ksenija Kranjcevic, Davorka Vrdoljak, Jasna Vucak  
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Background:

Atrial fibrillation (AF) is one of the most common arrhythmias. Its prevalence increases with age and is associated with significant cardiovascular morbidity including preventable stroke. Optimal prophylaxis of thromboembolic (TE) events in AF depends on risk stratification.

Research question:

Is it warfarin prescription in patients with AF according to risk stratification? Are the target levels of International Normalized Ratio (INR) reached?

Method:

A cross-sectional study was conducted in 8 randomly assigned GP practices. Electronic medical records of patients were reviewed using descriptors: AF, warfarin prescription. The risk stratification for warfarin prescription was conducted according to CHADS2 scoring (Congestive heart failure, Hypertension, Age, Diabetes, Stroke or TIA). Questionnaire was composed and used for purpose of this study (socio demographic and anthropometric data, life habits facts, comorbidity, use of permanent medication). The last three INR values were registered.

Results:

Out of 12,089 insured persons 304 (2,5%) had diagnosed AF. The average age was  $66,8 \pm 11$  years. The warfarin was prescribed in 181 (59,5%) patients with AF. According to the risk stratification, 43% (142) were low risk patients and received warfarin in 53,4% cases, 182 (59,9%) were moderate risk patients receiving warfarin in 48,9%, while 79 (25,9%) were high-risk patients and received warfarin in 87,3% cases. Target INR level was reached in 20 (11,3%) patients, while in 128 (72,3%) warfarin dosage was suboptimal. The  $\chi^2$  test demonstrated no statistically significant correlation between INR and examined variables.

Conclusions:

Study shows that warfarin prescription in TE prophylaxis in patients with FA is quantitatively fair. But according to dosage, reaching INR target levels, it is suboptimal. Warfarin underprescription in moderate and overprescription in low risk patients, indicates a necessity of both creating national guidelines on TE prevention and additional education of all physicians involved in warfarin prescription.

Points for discussion:

1. What is the practice in warfarin prescription and reaching INR target levels in patients with AF provided by GPs in other European countries?
2. Are there national guidelines on TE prevention in other European countries and how are they implemented in

PRESENTATION 45: Saturday 17<sup>th</sup> October, 2009  
14.00 – 15.15 h.

POSTER

TITLE: What worry the patients?

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**Background:**

Although falls occur more often-in elderly people it can happen in anyone. Stel et al (2004) wrote that approximately 30% of community-dwelling people aged 65 years and older fall at least once per year and about 15% fall twice or more per year.

Some of the physical consequences such as fractures and injuries are well known, but there are other consequences (ex what the patient think after falling) not yet well studied. These last consequences are important in General practice because sometimes can be a constraint to the patient's mobility and autonomy.

**Research question:**

How the patients were psychologic affected by the fall?

**Method:**

Through an opportunistic sample we studied the patients who spontaneous referred falling somewhere in the last 3 months before they visit their GP.

We reach the data saturation with about 30 patients. We did a context analysis of the answers and we divided them into categories.

**Results:**

Most of the patients were female.

Some of the expressed feelings were: fear, shame and insecurity.

The difficult to stand up and feelings related with that were referred.

**Conclusions:**

Most of the inquired patients refer negative feelings after falling. Some of the feelings persist months after falling and anytime they visit the GP they talk about it. In addition, they look for some help. The GP and other health professionals can help them, improving their self- confidence, and improving some health conditions which can be cause of falls.



PRESENTATION 46: Saturday 17<sup>th</sup> October, 2009  
16.10 – 16.40 h.

FREESTANDING PAPER  
Ongoing study with preliminary results

TITLE: What is the level of quality of interpersonal care in general practice in Croatia? Cross-sectional survey study using Consultation Quality Index (CQI).

AUTHOR(S): Zlata Ozvacic Adzic, Milica Katic, Josipa Kern, Djurdjica Lazic  
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Background:

Consultation Quality Index (CQI), instrument based on patient enablement, continuity of care and consultation length, reflects whether the goals of holism and patient centeredness have been achieved during a routine GP consultation, representing a measure of holistic interpersonal care.

Research question:

To investigate the quality of general practice care in Croatia, using CQI, and its association with patient, physician, and practice characteristics.

Method:

A cross-sectional questionnaire-based study was performed from November 2003 to March 2004. A stratified random sample of 350 GPs was asked to collect data on 50 consecutive consultations with patients aged 18+. Patients provided data on patient enablement (Patient Enablement Instrument, PEI), socio demographic data, how well they knew the physician, health self-assessment, quality of life, and reason for the visit. Physicians provided data on consultation length, age, sex, vocational training, working experience, educational work, average number of patients per day, and type of practice. CQI was calculated for individual physicians.

Results:

CQI scores for 125 physicians ranged from 4 to 16 (mean 10.6, SD 2.4). Each component of CQI correlated significantly with total CQI score (Spearman's  $\rho$  0.17-0.38,  $P < 0.0001$  for each). CQI significantly correlated with patient's age ( $\chi^2 = 38.173$ ;  $P < 0.0001$ ), educational level ( $\chi^2 = 79.682$ ;  $P < 0.0001$ ), knowing the physician ( $\chi^2 = 510.076$ ;  $P < 0.0001$ ), health self-assessment ( $\chi^2 = 20.968$ ;  $P = 0.021$ ), number of chronic diseases ( $\chi^2 = 18.814$ ;  $P = 0.0009$ ), quality of life ( $\chi^2 = 12.348$ ;  $P = 0.015$ ), number of reasons for the visit ( $\chi^2 = 61.034$ ;  $P < 0.0001$ ), and physician's age (Fisher's test,  $P = 0.002$ ).

In the next step, logistic regression analysis with below average CQI score (<25th percentile) as the dependent variable, with different patient, physician and practice predictor variables in the models, will be performed.

Conclusions:

CQI scores in Croatia were high in comparison with the UK. CQI was related to patient enablement, consultation length, continuity of care and other patient's and physician's characteristics. These relations are complex due to multiplicity of influences and need further analysis.

PRESENTATION 47: Saturday 17<sup>th</sup> October, 2009  
16.40 – 17.10 h.

FREESTANDING PAPER

TITLE: Help, I'm loosing my patient-centredness! A qualitative study exploring the experiences of medical students and their teachers.

AUTHOR(S): Katrien Bombeke, Linda Symons, Sandrina Schol, Luc Debaene  
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Purpose:

Literature still shows a decline in patient-centredness during medical education. The aim of this study is to explore the experiences of medical students and their teachers/supervisors with patient-centredness in order to gain a better understanding of the factors that determine its development.

Method:

We analysed 11 focus groups using grounded theory and triangulated the coding results with the ASE-model.

Results:

Although students express patient-centred attitudes and acquire patient-centred skills during medical education, this study indicates that this is not sufficient to attain the level of competent behaviour needed in today's challenging hospital environment. Clinical attachments do provide students ample opportunity to encounter patients and practise patient-centred skills. When, however, students lack self-efficacy, when they face barriers (time pressure, tiredness) or when they are surrounded by non-patient-centred role models and overwhelmed by powerful experiences, they lose their patient-centred focus. Personal development, including the ability to deal with emotions and personal suffering, self-awareness and self-care, prove to be important qualities of the central phenomenon 'doctor-as-person'. The relationship established between student and supervisor is found to be key to learning patient-centredness and performs several functions: direct *transmission* of patient-centred skills, knowledge and attitudes; *social support* of students' patient-centred behaviour; support of the *student-as-person*; *mirroring* of patient-centredness in being student-centred, and lastly, addressment of *supervisors' vulnerability*. The study furthermore suggests that communication skills training protects students from negative social influences. Finally, participants recommend that student-centred education and guidance be offered, self-awareness be fostered and more opportunities be created to encounter patients, including the opportunity to spend more time in general practice.

Conclusion:

Supportive student-physician relationships, student-centred education and guidance - addressing the doctor-as-person's needs - are central to the development of patient-centredness. Medical education requires patient-centred, self-caring and self-aware role models. It became clear that some aspects need further qualitative research through in-depth interviews.

Discussion points:

1. If you were to interview the students to achieve a deeper insight in the abovementioned results, what would you ask them? Which topics should guide the in-depth interviews?
2. As an educator, how would you implement the insights concerning the pivotal role of the student-physician relationship in medical education?

PRESENTATION 48: Saturday 17<sup>th</sup> October, 2009  
17.10 – 17.40 h.

THEME PAPER  
Ongoing study with preliminary results

TITLE: ..... and what happens afterwards? A standardised geriatric assessment (STEP) and its consequences.

AUTHOR(S): Christiane Mueller, U. Junius-Walker, E. Penner, E. Hummers-Pradier  
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#### Background:

The ageing society presents a challenge for General Medicine in all European countries. Structured approaches may help to face chronic diseases and multimorbidity in Primary Care. The wider use of a geriatric assessment as a doctor initiated comprehensive examination could be a reasonable way to improve the health care of elderly patients.

#### Research question:

For our interim analyses:

What is the number and nature of health problems in older general practice patients as identified by a geriatric assessment- which health problems are novel to the General Practitioner (GP)?

Which health problems lead to the planning of interventions and what factors are associated with the concrete realisation of planned measures?

#### Method:

In this prospective observational study 440 elderly patients in 44 practices in Hanover are dynamically recruited. Study nurses perform the STEP Assessment in the practises. The patients rate every disclosed individual health problem with regard to their subjective health care needs directly afterwards and again three months later. After the assessment the consultation takes place based on the individual health problems and patient's ratings. All following interventions are documented within a three months period. The main outcome of our study in the final analysis will be the effectiveness of a geriatric assessment from the patient's perspective.

#### Results:

We expect to uncover old age conditions, psychological and social health problems previously unknown to the GP.

Presumably not all of the initially planned interventions will be realised within the observation period.

We want to describe the associated factors, such as nature of health problems and relevance to patient or doctor.

#### Conclusions:

The knowledge of frequent health problems in old age and actual resulting interventions adds valuable clues for health care research and the handling of multimorbidity. The results of this study should contribute to a patient centred and effective primary care.

#### Points for discussion:

1. Considering your own experience as a GP? What are the factors that lead to the realisation of an intervention? What are factors that impede the realisation?
2. Are you surprised by our results concerning the disclosed health problems? Is it in acco

