Prague Medical REPORT

(Sborník lékařský)

Multidisciplinary Biomedical Journal
of the First Faculty of Medicine,
Charles University in Prague

Vol. 113 (2012) Supplement

Congress of the Clinical Section

International Association of Gerontology and Geriatrics European Region

29–31 August, 2012

Prague, Czech Republic

Abstract Book

Congress of the Clinical Section International Association of Gerontology and Geriatrics European Region

Geriatric Medicine: Strengthening Interdisciplinary Involvement

29–31 August, 2012
Prague, Czech Republic

Organized by the Czech Society of Gerontology and Geriatrics
Czech Medical Association J. E. Purkynje

and

First Faculty of Medicine
Charles University in Prague

The content and language editing is under the responsibility of authors.

Congress Opening Ceremony

Keynote lecture

The European Union Discovers the Gerontology and Geriatrics

Author: Baeyens JP
Institution: University of Luxembourg, Belgium

The European Union has now the privilege to count the highest proportion of older persons in the world (17.4% of the population is older than 65 years).

This is the result of social and medical development for more than 100 years. This is a real success story, but society has to adapt to this new reality. The other countries in the world are following this unique example and will have as many older persons as in Europe in less than 30 years.

The European Union could be an example to the rest of the world how to adapt society to this new situation, unique in history of mankind.

The decision of the European Commission to hold a year on the theme "Active and Healthy Ageing and solidarity between generations" is the right answer at the right moment to this unique opportunity.

What is more: the EIP (European Innovative Partnership) will try to prolong with 2 years the healthy life of the European citizens by 2020. Many action programs have been selected and are working very hard to achieve this goal. Some of these programs will be presented.

Another real breakthrough is the evolution at the European Medicine Agency (EMA). While till 2007 no specific attention was given to the medicines for older people and only a few older people (the fittest ones and just over 65 year) where included in clinical trials, there is now a real attention to this important group of the patient population. There is now a special chapter in the website of EMA for the medicines in older persons and there is a geriatric strategic plan, with a geriatric advisory group. The geriatricians (EUGMS) are represented in the bodies if EMA and also the patients (AGE-platform).

Something has still to be achieved: the creation of a virtual data base for all results of research and the status of the research projects still in progress. At this

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moment many results of gerontological and geriatric research are forgotten in libraries and are not implemented for the profit of the older persons.

These are marvelous examples how the European Union can improve the daily life of the European citizens.

Session I

Oral presentations

Chairs: Eva Topinkova (Czech Republic), Ivan Bartosovic (Slovak Republic)

Diabetes mellitus in advanced age – diabetologist's and geriatrician's view

Abstract Number: 01
Authors: Weber P
Institutions: Faculty Hospital and Masaryk University, Department of Internal Medicine, Geriatrics and Practical Medicine, Czech Republic

Diabetes mellitus (DM) is a heterogeneous syndrome which is marked by hyperglycemy, insulin effect deficiency (absolute or relative), simultaneous changes of metabolism of lipides and proteins and an inclination to development of chronical and acute complications. In gerontology it is clinically the most frequent and extremely serious metabolic disorder. Senior patients suffer predominantly from DM of the type 2 (70+ up to 95%). DM 2 development is caused mainly by 1. insuline resistance; 2. impaired insulin secretion; 3. impaired gluconeogenesis supression. DM2 in advanced age stems from an interaction of genetic predisposition and an environmental influence. Of particular importance are nutritional habits, modern lifestyle, stress and minor physical activity. Clinical manifested DM2 is preceeded by insulin resistance (IR) with a decrease of insulin biological effectivity and it is generally presumed that the latent period duration is about 6–12 years without any subjective difficulties. DM is a significant risk factor for an incurrence and development of late diabetic complications both micro- and macroangiopathic. Their prognosis does not depend much on particular type but rather on the period of the disease duration and the age of its discovery. The progress of atherosclerosis is several times quicker with diabetics (when compared to non-diabetic patients). Therapeutic options for DM2 in senium are diet, enhanced physical activity, various oral antidiabetic drugs, insulin and education. When selecting an appropriate treatment it is necessary to consider diabetic's age (including life expectancy); macro- and microangiopathic complications; self-sufficiency level; family environment and economic situation; nutritional habits (incl. dentition status); other handicaps – psychic, motoric, visual and aural.

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Main goals of treatment the older diabetics are: 1) limitation of symptoms of hyperglycemy, 2) realistic evaluation of an impact simultaneously occuring diseases (coronary heart diseases, etc.), 3) maintenance of optimum weight and physical activities, 4) minimalisation of the risks of hypoglycemies and other undesirable effects of the DM treatment, 5) retrieval of complications and prevention from their development, 6) timely improvement of contingent disability by means of available compensation aids, 7) keeping the old diabetic in the mood of overall welfare and selfsufficient quality of life in a community as long as possible.

Trends in vaccination in the elderly

Abstract Number: 02
Authors: Maresova V
Institutions: Charles University, 1st Infectious Clinic 2nd Medical Faculty, Czech Republic

Background: Obligatory periodic vaccination of children has changed significantly in the CR incidence of many infectious diseases. In recent years, however, some children's infectious diseases re-emerge (mumps, whooping cough, measles, etc.) more in adults. Unlike the children's vaccination in adults, especially among seniors less common. This age group is at risk for a severe course of infectious diseases.

Patients and vaccination: The importace of vaccination in adulthood is influenced by several factors. In adults compared with children with more common chronic diseases and comorbidity. Average 25% of Europe's population is over 60 years. An important vaccination for the elderly is vaccination against influenza, pneumococcal diseases, tetanus, diphteria and pertusis (Tdap) and viral hepatitis B (VHB) for adults who have diabetes or are at risk for hepatitis B. In addition to the vaccination should be vaccinated against tick-borne encephalitis (TBE). The incidence of TBE in the CR is high. Low vaccination rates in theelderly increase the risk of disease. Influenza vaccination is recommended in CR for persons older then 65 years and for persons with risk disease and comorbidity. Coverage is very low (cca 5% inhabitants). The situation is simile for vaccination against invasive pneumococcal disease (IPD). Our patiens with pandemic H1N1 influenza was 23.6% of patiens with X-ray proven pneumonia. The 8-year study of invasive pneumococcal pneumonia in our hospital, age-specific mortality was highest in patiens older than 65 years and reached 27.3%. Vaccination against tetanus in the CR is regular for all age groups. Due to the rise of disease in infants, but also in adults, it is appropriate Tdap vaccination for people aged 65 years and older who are in close contact with infants younger than 12 months. VHB vaccination is regularly in children. Vaccination against VHB in children are

among the regular vaccination. In adult patients are vaccinated efore entering the dialysis, diabetics treated with insulin and other risks. The incidence of VHB is stable. Tick-born encefalitis is endemic in CR (incidence 10.0 cases/100,000 inhabitans). The central nervous systém resulting in encefalitis or myelitis with high risk of bulbar syndrome in older patients. Low vaccination rates in seniors increase the risk of diseases.

Results: Vaccination rates in adults and especially in the elderly is very low. One mason is the low availabilityofvaccination for those interested. Adults perceive vaccination as a preventiv tool significantly less than that of vaccination for children. Most adults give priority to vaccination of thein children or grand children themselves before vaccination.

Conclusion: Vaccination of adults is becoming more important and we can assume that it will constitute a substantial part of the vaccination strategy. Vaccination in the elderly is both to protect thein own people, but also to reduce the risk of infectious disease in a family with children.

Pneumonia in residents of long term care facilities

Abstract Number: 03
Authors: Gryglewska B, Wojkowska-Mach J, Heczko P, Grodzicki T
Institutions: Jagiellonian University, Sniadeckich 10, Krakow, Poland

The aim of our study was to investigate incidence rate of nursing home-acquired pneumonia (NHAP) among residents of two different types of long term care facilities (LTCFs) and to analyze possible risk factors for NHAP.

We conducted a prospective study in 3 LTCFs: 2 residential homes [RH] and 1 nursing home [NH]. Continuous prospective infection control was carried out. The study was conducted on group of 217 residents (193 residents of LTCF and 24 from HC as a control group). Of them, 86 (39.6%) stayed at residential homes (RH). The average age was 76.2 years (SD ± 10.5). The survey was conducted during the calendar year. In the study group of 114 people (52.5% of the total) 188 cases of infections were detected, including 42 cases of pneumonia. Cumulative morbidity was 19.3%. At home care patient no cases of infections were recognized, whereas among residents of LTCFs significantly higher risk of NHAP was found (NH vs RHs RR 1.5). At the risk of NHAP in the patient significant impact had their general condition, expressed by Barthel scale (value 0, RR 1.6), the Katz-scale (value of 0–1, RR 1.2), and limited physical activity (bedridden residents, RR 1.6). Age of residents was not associated with NHAP. Malnutrition/cachexia were also statistically significant (RR 2.3). In connection with the development of NHAP,

11 residents died (mortality 37.9%). The predominant etiological factors of NHAP were microorganisms belonging to Enterobacteriaceae family.

Conclusion. There is necessary to developed a reliable and effective system of infection control in LTCFs and implement surveillance programsof the infections.

Polypharmacy in the establishments of social care in 2001 and 2010

Abstract Number: 04
Authors: Bartosovic I, Bartosovicova I, Bartosovicova D
Institutions: OZS Skalica, Slovak Republic

Introduction: Pharmacotherapy of the elderly in the establishments of social care belongs to the most important and topical issues of the health care for seniors.

Objective: Comparing the pharmacotherapy and polypharmacy in the residents of establishments for the elderly (formerly pensioners' homes) in 2001 and 2010.

Materials and methods: In 2001 we observed pharmacotherapy in a large group of 1758 seniors dwelling in various types of establishments of social care in the region of Trnava. From this group we chose one establishment and compared the pharmacotherapy provided in 2001 with the therapy in the same institution at the end of 2011. We observed and compared the overall number of regularly used medications, polypharmacy (simultaneous use of 5 or more medications), excessive polypharmacy (simultaneous use of 10 or more drugs) and some categories of medications.

Results: In 2001, the chosen pensioners' home was inhabited by 151 seniors, mean age 75.1, who regularly used, on the average, 5.9 medications. In 2010, the same home was inhabited by 145 seniors, mean age 77.5, who regularly used 7.58 medications. The increase in the number of medications was statistically significant. The increase in the number of regularly used drugs was observed in both genders and in the age groups of "older" and "very old" seniors. In the dwellers, we ascertained polypharmacy with a statistically significant increase in the number of seniors from 68.2% to 82.9%, and excessive polypharmacy with an increase from 9.3% to 28.1%.

Conclusion: Throughout a period of nine years we observed an increase in the number of regularly used medications and stated polypharmacy in the elderly residing in the establishments of social care. It is questionable if polypharmacy is caused by ageing of the residents, by geriatrisation of medicine, by a worsened health condition, improvements in diagnostics or by inappropriate medication.

Session II

IAGG-ER Symposium "State of Ageing Research and Innovation in the European Region"

Chairs: Vladimir Khavinson (Russia), Jean-Pierre Baeyens (Belgium)

Biological understanding of ageing and approaches or intervention to extend healthspan

Abstract Number: 05
Authors: Rattan S
Institutions: Laboratory of Cellular Ageing, Department of Molecular Biology and Genetics, Aarhus University, Denmark

Research on the biological basis of ageing includes: (i) describing the phenotype of ageing at the level of organs, systems, tissues, cells, intra- and inter-cellular pathways, and molecules; (ii) unraveling the biochemical and molecular mechanisms of age-related changes; (iii) identifying genes that affect the quality and duration of lifespan; (iv) identifying the rate-limiting steps which lead to the emergence of age-related diseases; and (v) screening, testing and developing evidence-based effective interventions to modulate ageing and to extend the health-span.

In Europe, different countries have different priority areas for research, which keep on changing and evolving in accordance with the changing social, political and economic trends. At the molecular biological level ageing is characterized by the stochastic occurrence and progressive accumulation of molecular damage. Failure of homeodynamics, increased molecular heterogeneity, altered cellular functioning and reduced stress tolerance are the determinants of health status, probability of diseases and the duration of survival. The inefficiency and imperfection of the maintenance and repair systems underlie the biological basis of ageing. Gene therapy, stem cells, and modulation through functional foods, nutriceuticals, cosmeceuticals and other life style alterations are examples of ageing interventions. A promising healthy-ageing approach is that of hormesis by strengthening the homeodynamic ability of self-maintenance through transient and repetitive mild stress. Achieving the goal of extended health-span will depend on elucidating and exploiting successful and dynamic interactions among biological, clinical, psycho-social and environmental factors.

IAGG Health Gerontology – European perspective

Abstract Number: 06
Authors: Topinkova E
Institutions: Department of Geriatris, First Faculty of Medicine, Charles University in Prague, Czech Republic
IAGG-ER, Clinical Section

As European continent is aging, non-communicable diseases are a particular threat to older European citizens together with disabilities, accidents. IAGG in collaboration with other professional bodies responds to this challenge and promotes a life-course approach to healthy and active ageing, which includes: promoting good health for all ages to prevent the development of chronic disease; early detection of chronic diseases to minimise their impact; creating physical and social environments that foster the health and participation of older people; and changing social attitudes to ageing. Redesign of care services to focus on prevention, early intervention, and active ageing is needed to reduce social isolation, improve health and wellbeing, and ultimately delay the need for care.

IAGG Global Aging Research Network (GARN) of excellence centres (http://www.garn-network.org) has been launched recently of which over a half, 253 research teams come from Europe. This approach will facilitate participation of research teams in trans-national Europe-wide health research such as upcoming "Horizon 2020 – the European Commission Framework Programme for Research and Innovation" 2012–2020 with health, demographic change and wellbeing as one of the supported societal challenges research. Research topics of high priority identified recently by IAGG were frailty, dementia and long-term care with significant contribution of European scientists in workshops organized along these topics.

In the frame of "2012 year of Active Ageing and Intergenerational Solidarity" the pilot European Innovation Partnership on Active and Healthy Ageing was started focusing on triple wins for Europe: (1) enabling EU citizens to lead healthy, active and independent lives while ageing; (2) improving the sustainability and efficiency of social and health care systems; (3) boosting and improving the competitiveness of the markets for innovative products and services, responding to the ageing challenge at both EU and global level, thus creating new opportunities for businesses. The three areas for achieving the overarhing target – to increase the average healthy lifespan by two years by 2020 are based heavily on health gerontology research. Overall, healthy and active ageing stands firmly on European Parliament and European Commission agenda and IAGG-European Region has to accept active partnership involving all three sections in these challenging activities.

Socio-behavioural factors for healthy and active ageing

Abstract Number: 07
Authors: Tesch-Roemer C[1], Deeg D[2]
Institutions: [1]German Centre of Gerontology, Berlin, Germany; [2]Free University Amsterdam, The Netherlands

Since its early beginnings, socio-behavioural research on ageing has not only striven to describe the course of ageing and to understand basic mechanisms of ageing processes, but also to add to the knowledge available so as to improve the process of ageing by changing the living situations of elders. One of the basic challenges of socio-behavioural ageing research concerns the question whether active ageing is possible and if so, which social and personal factors enable individuals, social groups, and societies to grow older healthily and actively. Active ageing embraces both individual processes and societal opportunity structures for health, participation and integration. The goal of interventions for active ageing is the enhancement of quality of life as people age. In this paper we will give an overview on the socio-behavioural ageing research in Europe concerning this topic.

We will start with discussing the conceptual foundations of the construct "active ageing" and the relation between active ageing and quality of life. Three interrelated domains of quality of life are chosen for discussion in this paper: health, social integration, and participation. Since active ageing relies on the optimization of opportunities for development, we will focus on socio-behavioral research regarding factors which foster active ageing over the life course. The foundations for active ageing are laid in childhood and youth. Early life experiences, especially education, yield positive effects, which will be visible in old age. Nevertheless, also in middle and late adulthood interventions are possible. Even in middle and late adulthood investments in active ageing are effective (e.g. changing health behaviour, vitalizing social integration, stimulating volunteer activities). Intervention studies demonstrate that changes in health, social integration, and participation are possible up to late adulthood. It should be emphasized, however, that the efficiency of interventions decreases with advancing age. Finally we will discuss, how societal frameworks may set the conditions for active ageing. Results from comparative surveys show that the extent of welfare state support – through social security systems like unemployment protection, pension system, health care system, and long-term care system – seems to be connected to opportunities for active ageing

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Policy on ageing and the human rights of older persons

Abstract Number: 08
Authors: Stuckelberger A
Institutions: University of Geneva Public Health School, Switzerland, Secretary-General IAGG European Region, Chair, United Nations NGO Committee on Ageing Geneva; President, Geneva International Network on Ageing

People are living longer and in better health than ever before. This makes it increasingly necessary to understand the implications for changes in the health, social and economic order, and requires innovative public health and public policies to guarantee a sustainable governance system. Yet our multi-generation society has unveiled a whole range of unprecedented needs for new and adapted policies and legislations for old age and intergenerational cohesion.

Analysis shows the absence of a specific framework for older persons regarding two key aspects: global policies on ageing international and basic human rights instruments.

The lack of progress globally in addressing old age and persistent problems of inequality and social exclusion of older persons shows how neglected and silently discriminated older persons are on the international agenda. This means that the most vulnerable will continue to face neglect, abuse, discrimination, prejudice along with poverty, mistreatment, age rationing, etc in the world. Global polices on ageing are lacking and currently one can only witness that the United Nations suffers a clear 'age deficit' consideration in most of its specialized programmes and agencies. The hope of a "UNAGE" requested at the Madrid World Assembly on Ageing by many governments has not emerged.

In the field of human rights, older persons are still very rarely mentioned and non existent in the United Nations human rights resolutions and agenda. There are many situations where older persons suffer from 'ageism' and multiple discrimination: discrimination in the employment sector, age rationalization of health care and unequal treatment; neglect in health care; violence and mistreatment, financial and inheritance abuse, lack of protection and safety nets for the ageing poor, technological exclusion of older persons.

Recently, encouraging steps have been taken at the United Nations Human Rights Council with new reports on the situation of older persons: extreme poverty, right to health, general CEDAW recommendation, open-ended working group. Yet, analysis can only show slow progress and conflicting views on a Convention on older personas or a UN structure on ageing. On the other hand, the EU has, through its Charters and regulations been a pioneer in addressing older persons rights.

Achievements in exercising rights of older persons and combating discrimination are slight and a lot remains to be done. To date, no comprehensive international

convention yet exists in relation to the rights of older persons and no binding supervisory arrangements are attached to the various sets of United Nations principles in this area. The IAGG-ER has also adopted a Declaration on the rights of older persons to address the issue and support progress in its member organisations.

Integrating ageing populations in policymaking is not just a question of financing welfare policies. It requires a change of vision of the relations between generations and the roles of different age groups. Presentation of the developments and discussion of recommendations to policy-makers is discussed.

Session III

Symposium "Medication Optimization in Older Persons"

Chairs: Mirko Petrovic (Belgium), Daniela Fialova (Czech Republic)

The interrelation between drugs and falls: an update

Abstract Number: 09
Authors: van der Cammen T
Institutions: Section of Geriatric Medicine, Department of Internal Medicine, Erasmus University Medical Center, Gravendijkwal 230, Rotterdam, The Netherlands

Falls are a major public health challenge for countries with ageing populations. Approximately 30% of people aged over 65 and 50% aged over 80 years will fall in a given year. In addition to the morbidity and mortality associated with the injuries they cause, falls can have a large negative impact on functioning and quality of life of older persons. Psychotropics and cardiovascular drugs have been shown to increase fall risk in older people. Withdrawal should be considered as an effective intervention for lowering falls incidence.

Psychotropic drug use in old people: can we lighten the burden?

Abstract Number: 10
Authors: Petrovic M
Institutions: Service of Geriatrics, Ghent University Hospital, De Pintelaan 185, Ghent, Belgium

Regarding discontinuation of long-term benzodiazepine use, the evidence exists that a short-term withdrawal programme in the hospital setting is feasible as an alternative to a fixed tapering schedule or a reduction rate titrated against the withdrawal symptoms. As to antipsychotics, it is recommended not to continue these drugs longer than 3 months and to try to withdraw them at regular intervals. The evidence shows that most of patients with mild to moderate behavioural and

psychological symptoms of dementia can be withdrawn from chronic antipsychotic medication without detrimental effects on their behaviour. Caution is required in patients with more severe symptoms at baseline.

Development of a drug related problem trigger tool

Abstract Number: 11
Authors: Dilles T
Institutions: Department of Nursing Sciences, University of Antwerp, Universiteitsplein 1, Wilrijk, Belgium

Adverse drug reactions (ADRs) are also common in nursing home residents. To reduce the burden of actual ADRs, interdisciplinary cooperation is advisable. Therefore, an ADR trigger tool was developed. The tool is a resident specific list of ADR triggers, constructed based on each resident's medication chart. In an intervention study, using the trigger tool, nurses observed 1527 potential ADRs in 81% of the 418 residents. In interdiscilinary medication review, physicians confirmed 821 of the ADRs and 214 medication changes were planned. The use of the tool sitmulated interdisciplinary cooperation, improved the detection rate of ADRs and increased the number of medication changes.

Evaluation of clinical pharmacist recommendations for older hospitalized patients

Abstract Number: 12
Authors: Somers A
Institutions: Department of Pharmacy, Ghent University Hospital, De pintelaan 185, Ghent, Belgium

Older hospitalized patients suffer frequently from drug related problems which can be identified by clinical pharmacists. The type, acceptance rate and clinical relevance of 304 drug therapy changes for 100 patients taking a total of 1137 drugs were evaluated. Sixty percent of the recommendations were accepted by the treating physician; the acceptance rate by the evaluators ranged between 92.4% and 97.0%. Mean clinical relevance was assessed as possibly important (53.4%), possibly moderate (38.1%) and possibly very important (4.2%), with low inter-rater agreement. Summated MAI scores significantly improved after the pharmacist recommendations with mean values decreasing from 9.3 to 6.2 ($p < 0.001$).

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Session IV

Workshop I – Clinical Pharmacy

Moderator: Daniela Fialova (Czech Republic)
Panellists: Annemie Somers (Belgium), Mirko Petrovic (Belgium), Tischa Van der Cammen (The Netherlands)

Implementation of clinical pharmacy practice in Europe

Abstract Number: 13
Authors: Fialova D
Institutions: Department of Geriatris, First Faculty of Medicine, Charles University in Prague, Czech Republic; Department of Social and Clinical Pharmacy, Faculty of Pharmacy, Charles University in Prague, Czech Republic

Adverse drug events are frequent in geriatric patients and have been documented in up to 35% of community-residing older adults and 16.6% of older patients admitted to hospitals. Substantial burden arises from unresolved drug-therapy problems, e.g. a decline in patients' health status, quality of life, an increased morbidity and mortality and higher expenditures on health care. Nonetheless, 32–69% of drug-therapy problems are preventable and can be resolved by professionals trained in diagnostic issues and management of drug-therapy problems.

Clinical pharmacists are specialized in pharmacotherapy risk-assessment (diagnosing of various drug-therapy problems with respect to drug pharmacology and non-pharmacological risk factors) and pharmacotherapy risk-management (resolution of drug therapy problems considering individual goals of care). They have been leaders of or participants in many strategies for the optimization of pharmacotherapy in older patients in many countries. According to the US Fleetwood Model of Pharmaceutical Care, pharmacoeconomic savings from the improved therapeutic outcomes associated with a retrospective review of the medications by consultant pharmacists have been estimated up to US 3.6 billion dollars annually thanks to avoidance of drug-therapy problems. The involvement of clinical or consultant pharmacists in interdisciplinary teams increases the cost-effectiveness and safety of pharmacotherapy and grows in many countries.

At undergraduate level, pharmacists are uniquely trained in pharmacotherapy and pharmaceutical care planning. Postgraduate training in clinical pharmacy further develop their skills to conduct comprehensive medication reviews. The role of

clinical pharmacists in optimizing pharmacotherapy in older patients is important and embeds I) reviewing patients' clinical medical notes along with reviewing their medicines, and discussing the medication treatment and its outcomes with the prescribing physician and the patient, II) screening for high-risk medicines/adverse drug reactions and other drug-therapy problems, III) liaising with the prescriber (e.g. communicating to resolve medication-related problems) and IV) educating the patient and/or the caregiver and supporting the process of continuity in rational drug use.

Pharmacists played an active role in performing comprehensive medication reviews and in the education of patients and healthcare professionals in many randomized controlled trials. A positive impact particularly on resolution of drug-therapy problems has been documented in many of these studies and the pharmacotherapy of patients was substantially improved. Better drug-therapy outcomes were described when pharmacists closely collaborated with physicians and nurses in multidisciplinary teams, had an open access to patient medical records and received a specific postgraduate training in clinical pharmacy.

The workshop reviews the recent situation in implementation of clinical pharmacy practice in Europe, discusses the active role of clinical pharmacists in health-care teams and their important role in multidisciplinary cooperation and optimization of pharmacotherapy in older people.

The work has been supported by grant IGA MZCR 10-029-4/2008.

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Session V

Oral presentations

Chairs: Suresh Rattan (Denmark), Pavel Weber (Czech Republic)

Interprofessional Teamwork in Long Term Care: Geriatric Syndromes Management in LTC Facilities in the Czech Republic

Abstract Number: 14
Authors: Vankova H, Holmerova I, Hradcova D, Baumanova M, Jedlinska M
Institutions: Charles University in Prague, Centre of Expertise in Longevity and Long Term Care, Faculty of Humanities, Gerontologicke Centrum, Czech Republic

Communication in interprofessional team in long term care facilities for older adults is crucial for detection of geriatric syndromes in residents. Preliminary data and case studies from five Czech "homes with specialized regime" (so called "DZR") concerning geriatric syndromes management will be presented.

All residents in "homes with specialised regime" (DZR) are people with disability needing long term care, most of them suffering from dementia. Health care in DZR facilities in the Czech Republic is basically provided by nurses, who are usually only few and cooperate with external general practitioner. Members of care staff providing everyday care, who have detailed knowledge of concrete resident are crucial for detection of problems, being able to distinguish changes in behaviour (e.g. possibly indicating delirium onset) or nonverbal signs of discomfort (possibly caused by pain, depression or other health problem).

The projects NT11325 "Long-term care for seniors: quality of care in institutions" is mapping important geriatric syndromes and their management in these LTC facilities. The project "Geriatric and Organisational Supervision" is seeking possible ways of intervention, using organisational development consultancy and training the trainers. Preliminary data and case studies concerning geriatric syndromes and interprofessional communication will be presented; typical example is the experience with deployment of pain assessment in people with advanced dementia in these settings.

Communication in interprofessional team is crucial to avoid mistreatment of pain in long term care residents. Education of all members of interprofessional team in LTC facilities in symptoms of delirium and geriatric depression is necessary for improving detection of these geriatric symptoms in residents.

Supported by the grant NT11325 of the Ministry of Health of the Czech Republic.

Application of peptide geroprotectors in elderly patients with age-related pathology

Abstract Number: 15
Authors: Khavinson V, Ryzhak GA, Mikhailova ON, Ryzhak AP
Institutions: IAGG-ER, St. Petersburg Institute of Bioregulation and Gerontology, Russia

Chronic cerebrovascular insufficiency is one of the most common pathologies leading to disability in the old. Safe and effective preventive and therapeutic means is an urgent problem in gerontology.

A randomized, placebo-controlled clinical trial to study the efficacy of application of the brain and vessel peptide bioregulators in the complex treatment of DE was conducted. 83 patients aged 62–75 and diagnosed with "DE stage I–II" partici-pated in the trial. The duration of the disease ranged from 2 months to 10 years.

The patients were divided in 3 groups. I group (control, n = 27) received pla-cebo by 2 capsules twice a day during 30 days. II group (n = 28) received brain bio-regulator "Cerluten", and III group (n = 28) received both "Cerluten" and vessel bioregulator "Ventfort" by the same scheme.

The efficacy was estimated by the dynamics of subjective indices and results of correction test.

Evaluation of the patients' subjective status revealed decreased complaints of headaches, hyperirritability and emotion lability in the second and third groups. Before treatment, 78.1% of patients complained of headaches after mental or exer-cise stress. By the end of the treatment 67,4% of patients from the control group, 25.7% from the second group and 18.2% of patients from the third group complained of headaches. Emotional balance was reported by 68.3% of patients after treatment with Cerluten, and by 84.1% of patients treated with Cerluten and Ventfort (by 34.2% of patients in the control group).

69.7% of patients from the second group and 87.8% of patients from the third group reported restored working capacity, memory functions – 64.8% and 82.1%, attention recovery –72.6% and 84.2%, sleep normalization 61.3% and 77.7% of patients correspondingly (20–42% of patients in control group).

The results of correction test showed that number of the browsed characters increased by 42% in patients of the second group and 48% in the third group (19.2% in the control group).

The use of Cerluten and Ventfort in complex treatment of DE improved the treatment efficacy 2.3 fold as compared to placebo-control. This justifies the em-ployment of brain and vessels geroprotectors in conventional treatment of DE stage I–II.

Treatment of Pulmonary Embolism among 260 In-patients of Acute Medical Department in Elderly Persons

Abstract Number: 16
Authors: Weberova D, Weber P, Kubesova H, Meluzinova H, Polcarova V, Canov
Institutions: Department of Internal Medicine, Geriatrics and Practical Medicine, Faculty Hospital and Masaryk University, Brno, Czech Republic

Introduction: Pulmonary embolism (PE) is after myocard infarction and cerebrovascular events third oftenest cardiovascular cause of death. Simultaneously belongs among at least often correctly diagnosed cardiovascular diseases.

Aim of the study: The retrospective analysis from the database of inpatients with the target assess the clinical course of PE according to prevalence, mortality, average duration of stay, risk factors, used diagnostic methods and kinds of therapy. Another aim of study was a comparison the dates among the survivors and deceased persons.

Patient's set and method: Between 2005 and 2010 years we had altogether 6,323 elderly patients of an average age 80.7 ± 6.9 y. (range 65–103 y.) treated at the Department of Geriatrics. Out of this number there were 4,163 women (66%) and 2,160 men (34%). We evaluated the course of PE in 260 cases of mean age 79.8 ± 7.2 y. (165 women and 95 men). For the verification of the diagnosis of PE were used next usual proceedings (anamnesis, clinical examination, ECG, X-ray, labs etc.) also ECHO-cardiography, perfusion scan or helical CT of chest. 80% of deceased had autopsy. In the set in-patients with PE 89 died (34.2%) and 171 (65.8%) survive with anticoagulant treatment and discharged from the department.

Results: Prevalence of PE was 4.1% per year among all hospitalized elderly in-patients (≥ 65 y.). Its occurrence was increasing with age to 81 y. and thereafter slightly decreasing. 89 of all above mentioned persons with PE died on PE. In one third of deceased was PE occasional finding in autopsy without any previous clinical signs. Mortality in asymptomatic persons was significantly higher in comparison to patients wit symptomatic PE ($\chi^2 = 57.293$; $p < 0.001$). We didn't find significant

gender difference in prevalence of mortality according to gender structure of the set with PE. In 14 cases PE clinically demonstrated as sudden death. But we determined the age difference between deceased – 82.6 ± 7.1 y. vs. 79.9 ± 6.7 ($t = 4.327$; $p = 0.01$). Average duration of hospital stay was also significantly different between both groups –the deceased: 9.6 ± 7.4 days vs 12.4 ± 9.2days in survivors ($t = 4.256$; $p = 0.01$). Risk factors were assessed and compared between both groups: deceased and survivors. We found as the most important risk factor in group of deceased immobility ($p < 0.005$), heart failure ($p < 0.01$) a stroke ($p < 0.01$); while in survivor's group was more frequent risk of PE – obesity ($p < 0.025$), deep vein thrombosis ($p < 0.025$) and presence of tumors ($p < 0.05$). Previous surgery in the last month and trauma did not show differences between the two groups of survivors and deceased. Used treatment methods were evaluated too.

Conclusion: We would like to emphasize the need permanently think in elderly persons with present risk factors on the possibility of PE and also the requirement of correctly assessed diagnosis and start therapeutic procedures as soon as possible.

Determinants of Intensive Care Unit Length of Stay after Coronary Artery Bypass Surgery

Abstract Number: 17
Authors: Yildirim J, Dincer M, Keskin H
Institutions: Ted University, Kizilirmark Sokak 8, Turkey

The duration of intensive care unit (ICU) stay in cardiac surgery patients has an important role regarding the rate of complications and costs. As the length of stay can be seen as a measure of morbidity, outcome in intensive care units have primarily been focused on hospital survival. Even though there is a bulk of studies investigating the determinants of ICU length of hospitalization for many countries, empirical evidence on this issue is limited for Turkey. This study is an attempt to investigate the risk factors related with the increased ICU length of stay after coronary artery bypass surgery. The medical records of 397 patients who had coronary artery bypass surgery at Ataturk Training and Research Hospital between July 2006 and December 2010 were reviewed. Patients were divided into early (≤24 hours) and late (>24 hours) ICU discharge groups according to the duration of ICU. The presence of certain preoperative risk factors, such as age, sex, diabetes mellitus, hypertension, hyperlipidemia and chronic obstructive pulmonary disease were evaluated. Logistic regression analysis was employed to identify the independent preoperative factors affecting a patient's likelihood for prolonged ICU stay. Initial empirical evidence suggests that previous percutaneous coronary intervention, diabetes mellitus, hypertension, hyperlipidemia are among the factors that affect the ICU stay of the patie

Inappropriate treatment patterns in residents of nursing homes

Abstract Number: 18

Authors: Szczerbinska K[1], Piorecka B[2]

Institutions: [1]Chair of Epidemiology and Preventive Medicine, Jagiellonian University Medical College, Kraków, Poland; [2]The Institute of Public Health, Jagiellonian University Medical College, Kraków, Poland

Introduction: Inappropriate treatment of older individuals results in adverse effects and may cause deterioration of their health status and quality of life. It also causes economical burden and waste of public health care resources.

Goal: to review treatment patterns in patients of skilled long term care facilities in Kraków, Poland, and to assess their adequacy in terms of addressing dementia and depression.

Methods: the health status and quality of life have been studied using InterRAI- LTCF questionnaire for a group of 121 patients (average age 77.3 ± 12.1) admitted to 3 skilled nursing home facilities in Kraków. The analysis concerned prevalence of dementia and depression (assessed with Cognitive Performance Scale and Depression Rating Scale), and a detailed register of medicines taken on the day of assessment.

Results: prevalence of depression and dementia were 18.2% and 43.8%, respectively. However, only 27.3% of patients reporting symptoms of depression were treated with antidepressants, and only 18.9% of patients with cognitive impairment received treatment improving cognitive functioning. More than half of the patients treated with antidepressants had no symptoms of depression (7 among 13) – this may indicate effective treatment or prescribing of inappropriate drugs. Among the patients treated with drugs improving cognitive functioning, more than one third (6 among 16) had no cognitive impairment. Most of patients suffering from dementia were treated with piracetam, which is currently not recommended in treating dementia.

Conclusions: under-treatment and not appropriate treatment of dementia and depression remain a problem in older patients staying in long term care facilities. More trainings are needed to teach physicians working in long term care facilities to recognise dementia and depression more effectively and to encourage them to apply appropriate treatment

Session VI

Symposium "Interdem"

Chairs: Martin Orrell (United Kingdom), Iva Holmerova (Czech Republic)

Service use in young onset dementia: the Needyd study

Abstract Number: 19

Authors: van Vliet D[1], Bakker Ch[2,5], Pijnenburg Y[3], Vernooij-Dassen M[4], Koopmans R[5], Verhey F[1], de Vugt M[1]

Institutions: [1]School for Mental Health and Neuroscience, Alzheimer Center Limburg, Maastricht University Medical Center, Maastricht, The Netherlands; [2]Florence, Mariahoeve, Centre for Specialized Care in Early Onset Dementia, The Hague, The Netherlands; [3]Alzheimer Center and Department of Neurology Amsterdam; [4]Alzheimer Centre Nijmegen, Centre for Quality of Care Research, Nijmegen, The Netherlands; [5]Department of Primary and Community Care, Centre for family Medicine, Geriatric Care and Public Health, Radboud University Nijmegen, Medical Centre, Nijmegen, The Netherlands

Background: Young onset dementia has serious consequences for patients and their family members. Although there has been growing attention for this patient group, dementia health care services are still mainly targeting elderly. Specific knowledge of the needs of young onset dementia patients and their families is limited but necessary for the development of adequate health care services and specific guidelines. The objective of the NeedYD-study (Needs in Young Onset Dementia) is to examine the characteristics and needs of young onset dementia (YOD) patients and their families. The focus of this presentation will be on predictors of service use and institutionalization.

Methods: The NeedYD-study is a longitudinal observational study investigating young onset dementia patients and their caregivers (n = 215). Assessments were performed every six months over two years and consisted of interviews and questionnaires with patients and caregivers. Outcomes that will be addressed here are: (1) Service use, as measured with the resource utilization scale (RUD lite), and (2) time to institutionalization, measured as months from symptom onset until institutionalization. The results on time to institutionalization were

compared with data on late onset dementia from a historical cohort, the MAASBED-study.

Results: Within the YOD group informal care had a 3 : 1 ratio with formal care. Fewer informal care hours were related to more caregiver working hours, especially in younger patients. Furthermore, time from symptom onset to institutionalization was approximately nine years for YOD patients against four years in LOD patients. Apathy (hazard ratio [HR] = 1.081; CI: 1.008–1.159) ($p < 0.05$) was a significant predictor of time to institutionalization in the YOD group as was caregiver competence in both groups (hazard ratio[HR] = 0.955; CI: 0.917–0.995) ($p = 0.029$).

Conclusion: The findings of this study have important implications for service provision given the prolonged period YOD patients are cared for at home. Supporting the caregiver in dealing with behavioural problems, especially apathy may prove worthwhile to increase caregiver competence and to postpone institutionalization of the patient.

Gerontological and Organizational Supervision in Residential Facilities of the South Moravian Region, Czech Republic

Abstract Number: 20

Authors: Holmerova I, Hradcova D, Vankova H

Institutions: Charles University in Prague, Faculty of Humanities, CELLO-ILC-CZ and Centre of Gerontology Prague

The primary aim of our project is to improve quality of care in residential care homes of the South Moravian Region. We've conducted "gerontological and organisational supervision" in 16 care homes according to the agreement with the Regional Authority. The process started in August 2009 and is supposed to be finished by December 2012. At the beginning several meetings were held with representatives of regional government in order to define the goals, scope and expected interventions. Reflecting upon these meetings we agreed that relationship is fundamental to the success of the project, and the chosen methodology would not separate researchers (and providers) from other people involved in the project. Thus we agreed on wide engagement and participation of management, staff, clients and other potential stakeholders into the process and close cooperation with the representatives of the regional authority in project design, monitoring and evaluation. Project participants have been involved in decisions about areas of

investigation and interventions. Interventions implemented so far include: seminars, trainings, case conferences and consultations, supervision, assistance in self-assessment of quality of care according to certification criteria of Czech Alzheimer Society "Vážka", consultancy on strategic and organisational development planning, train the trainers programme for care homes staff and managers. Two care homes were invited and have agreed to participate in further research project which started in the last year and which focuses long term care quality indicators development. Staff members of collaborating facilities (as coordinators) have been directly involved in data collection and analyses under the supervision of our team members. Data collection has so far included: meetings of project team (physician, expert in organisational development, expert in dementia care) workshops, focus groups, individual and group discussions with management and staff, observations, analyses of documentation, case studies, collection of data on health status. At present, data on health status and care in above mentioned facilities are being collected and evaluated; qualitative research methods help us to understand these data in a complex way. Both projects outline and first findings of our research project on long-term care quality indicators will be included in our presentation.

Supported by the grant NT11325 of the Ministry of Health of the Czech Republic: "Long-term care for seniors: quality of care in institutions, organisation's culture and support of frail older persons".

Changing psychiatric practice to reduce admissions for dementia

Abstract Number: 21
Authors: Qazi A
Institutions: North East London NHS Foundation Trust

In psychiatric practice admissions to hospital for people with dementia can sometimes result in extended inpatient admissions and unnecessary delays in discharge. The study involved changing the practice of a community old age psychiatry consultant. The new model was implemented over a 3 year period and involved developing closer links with general practitioners and care homes. In addition, the consultant enabled better access by the general practitioners, community team and care homes so that direct mobile phone contact with the consultant was much easier. Direct liaison with GPs and local talks at GP practices and care homes ensured better support for patient care. Within the local area comprising 9 consultant patches the consultant implementing the new model had only 16 admissions per year per 10,000 older people (compared to between

19 and 50 per year for each of the other consultants) and in addition length of stay was dramatically reduced so that the new model consultant used only one third of the beds compared to the other consultants.

The UK Memory Services National Accreditation Programme [MSNAP]

Abstract Number: 22
Authors: Orrell M[1,2], Hodge S, Doncaster E[2]
Institutions: [1]University College London and North East London NHS Foundation Trust; [2]Memory Services National Accreditation Programme

Background: The lack of a consistent model means that the quality and characteristics of memory services can vary greatly. A nationally agreed set of quality standards would help improve UK memory services.

Objectives: To develop and implement standards for memory services as part of a national quality improvement programme

Method: The development of the standards involved a literature review/content analysis; key stakeholder workshop; stakeholder consultations; consensus meeting; and a final consultation process obtaining endorsements from key organisations. Thirteen memory services participated in the pilot programme using draft set of quality standards through the processes of self- and peer review.

Results: The MSNAP standards consisted of 148 quality standards covering: management; resources for assessment and diagnosis; processes of assessment and diagnosis; and ongoing care management and follow up. The pilot stage highlighted common areas where improvements had been made, such as finding out whether the patient wished to know their diagnosis, and areas where attention was still required, for example surveying referrers, patients and carers about their experiences of the service.

Conclusion: It was possible to develop and field test nationally agreed quality standards for memory services. Fifty services have now joined MSNAP and this will improve the quality of UK memory services. MSNAP has recently been endorsed by the UK Prime Minister as part of his Challenge on Dementia.

Session VII

Workshop II – Geriatric Nursing

Moderator: Veronica diCara (Czech Republic)
Panellists: Alena Machova (Czech Republic), Darja Jarosova (Czech Republic), Marie Treslova (Czech Republic), Stefan Krajcik (Slovakia)

Long-term care for senior nursing in hospitals in South Bohemia

Abstract Number: 23
Author: Machova A
Institutions: University of South Bohemia in České Budějovice, Faculty of Health and Social Studies, Department of Nursing and Midwifery, Czech Republic

Introduction: The aim of geriatric nursing is to meet bio-psycho-social needs in order to maintain the highest possible quality of life (1). If greater amount of medical and nursing care required by senior health, he is hospitalized in acute bed in hospital ward (2), in case of chronic diseases long-term care is supplied.

Aims: 1. To map the degree of meeting selected bio-psycho-social needs of the elderly by nurses. 2. To determine which of the areas: biological, psychological or social is the most neglected by nurses.

Methodology and research sample: Quantitative research was used in form of non-standardized questionnaire technique. Research was conducted in 9 hospitals in the South Region in May to July 2009. The research sample consisted of 131 nurses working in long-term care.

Results: In the area of physiological needs, focus was placed on pain management, prevention of pressure ulcers and falls. The results showed that 89.2% of nurses assessed pain in elderly patients. 91.6% of nurses carried out a risk assessment of damaged skin integrity according to Norton test. 71% of nurses assess the risk of falls in elderly and the majority (84.7%) of them record any falls to documentation.

In meeting the psycho-social needs, focus was on ensuring the implementation of intimacy during nursing interventions, staff being introduced to the patient and maintained contact with relatives. Only 26.7% nurses were found to maintain intimacy during hygiene in bed and only 25.2% during defecation. Introduction to

the patient on the first meeting should be a matter of course for nurses although only 67.9% of nurses do so. In the social area it is particularly important for the seniors to keep close contact although only 73.3% of surveyed nurses allow unlimited contact with relatives.

Comparing the assessment of individual areas, it was found that nurses evaluate maintaining social needs of elderly as most important.

Conclusion: Finally, it can be assessed that the overall level of nursing care provided in long-term care facilities is high, though more emphasis is needed to address the ethical aspects of care.

Literature: (1) Gillerová I, Buriánek J. Základy psychologie, sociologie, základy společenských věd. 3. upravené vyd. Praha: Fortuna, 2001. (2) Hanzlíková A. Komunitní ošetřovatelství. 1. české vyd. Martin: Osveta, 2007.

Evidence Based Practice in Geriatric Nursing

Abstract Number: 24

Authors: Jarosova D

Institutions: Faculty of Medicine, University of Ostrava, Czech Republic

The phenomenon of evidence based practice (EBP) in nursing appears at the end of the nineties, in the Czech Republic to the next ten years. Although the training of Czech nurses is for over ten years at the universities under the national education curriculum, the subject of EBP is not part of it. Geriatric nursing education in the CR is organized as a two-year master's degree, which includes the specialization of geriatric nurse. The issue of EBP is included in the curricula of both theoretical as a separate course (project work), and as part of selected clinical courses (problem based learning), where students solve case study and scenarios in the clinical setting. Students found solutions of problems Involved in case study and as possible they implement and evaluate recommendations of best practice directly to patients. In geriatric wards, however, is not regularly implemented EBP into nursing interventions. Although evidence based practice holds tremendous potential to optimize care outcomes for older adults, nurses are ill prepared to identify, interpret, and apply the best evidence to their practice. It is evident that there are many factors that impede the use of research findings in practice. The studies indicates that in addition to organizational barriers of the institution, time constraints and the inability of nurses to use research results, the biggest obstacle is reluctance and lack of authority to change nursing practice. Another obstacle to the implementation of EBP into nursing practice we see in competencies of Czech geriatric nurses which do not allow them to implement best practice recommendations in care of elderly patient.

Session VIII

Symposium "Nutritional Issues"

Chairs: Cornel Sieber (Germany), Stefan Krajcik (Slovakia)

Undernutrition in older age

Abstract Number: 25
Authors: Baeyens JP
Institutions: University of Luxembourg, Belgium

Food is very important in life. When something has to be celebrated, generally a good meal is presented. In difficult negotiations, a good meal solves most problems. At a meal the important factors are the energy supply, the taste and the smell, the eyes and also to be together. While in younger people obesity is now the big challenge, in the older group, the undernutrition is the big problem.

The first problem is that nobody is aware of this problem: nor the older persons themselves, not their family and not the healthcare workers nor providers. The second problem is the difficulty to indentify the people who are in undernutrition or at risk of undernutrition. The third problem is the heterogeneity of the causes of undernutrition. There is a real need for multidisciplinary approach, what looks difficult in our modern society. The fourth problem is the evaluation of the consequences of undernutrition. Generally these consequences are not taken in account. This has a catastrophic effect on the healthcare expenses in our society. All these problems have to be solved and the proof is made that interventions are possible and successful.

Undernutrition and sarcopenia

Abstract Number: 26
Authors: Sieber C
Institutions: Institute for Biomedicine of Aging, Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany

Sarcopenia – the age-related loss of fat free mass (mainly muscle mass) – has strong links to the frailty syndrome. Sarcopenia is accompanied by functional decline and thereby often loss of independence. The pathophysiology behind sarcopenia is multifactorial, but undernutrition – besides lack of physical exercise – is a cornerstone if it. Sarcopenia can be linked to caloric and especially protein undernutrition (PEM), but it can also been seen on obese elderly persons. So, "sarcopenic obesity" is as sarcopenia due to undernutrition a challenge for all those working with elderly persons.

In the talk, the current definitions of sarcopenia will be discussed as well as its differences to cachexia. Such a distinction is important as compared to cachexia, sarcopenia can most often be treated by both a protein-rich diet as well as physical exercise programs.

So, in the last part of the talk, current nutritional strategies to overcome the problems of sarcopenia will be detailed.

Dementia and nutrition, nutrition and dementia

Abstract Number: 27
Authors: Krajcik S[1], Gadusova M[2], Bartosovic I[3]
Institutions: [1]Slovak Medical University Bratislava, Slovakia; [2]Central Military Hospital, Ruzomberok, Slovakia; [3]Skalica, Slovakia

The prevalence of dementia will be increased by 100–300% and so issue of its prevention is more than important. A possible preventive measure can be diet. Detrimental effect of deficit of vitamin B1, B12 and folates on cognitive function is well known. The prevalence of B12 deficit in old people is 10–20%. The role of vitamin D deficit in dementia prevention is not established. Mediterraine diet with high content of PUFA, polyphenols and low content of SF has protective effect on cognition. Dementia adversely affects nutrition. Nutritional status can be improved by routine appropriate for concrete patient. The role of PEG is controversial.

Session IX

Symposium "Mental Health"

Chairs: Peter Crome (United Kingdom), Zoltan Paluch (Czech Republic)

The National Audit of Dementia

Abstract Number: 28
Authors: Crome P
Institutions: University College London, United Kingdom

At least 25% of patients in acute hospitals will have dementia although often this is only recognised when delirium or other complications develop. Concern that hospitals have not really accepted this consequence of the ageing of the population led the Government to fund a large study of the quality of care in which almost all acute hospitals in England and Wales participated. Methods included questionnaires, review of almost 8,000 case notes and direct observation. Findings were compared to standards which were derived following widespread consultation with all stakeholders.

No hospitals met all the standards. Even in the same hospital some wards performed better than others, irrespective of specialty. Few management boards received comprehensive reports about the care of dementia patients in the hospital. There was a mismatch between policy and practice. 84% of hospitals said function should be recorded in dementia patients but the case notes revealed that this had happened in only 26%. Discrepancies were also found in assessment of nutrition, cognition, pressure sores and home safety. Support from psychiatry (which in the UK is usually based elsewhere) was rarely available outside the working week. Almost all staff felt that more training in dementia would be beneficial yet only 5% of hospitals had mandatory training in this area. Most hospitals had systems in place to report staff shortages however staffing levels were believed to be too low. Direct observation of the care of patients with dementia showed that very few units offered person-centred care. The content of staff-patient interaction was largely task related and delivered in an impersonal care.

The Audit made a number of recommendations in the fields of governance, assessment psychiatry liaison, nutrition, information, staff training and support, environment, discharge planning and patient-directed care. The audit is being

repeated with the hope that significant improvements have occurred. Hospitals must accept that the treatment of patients is "core business" and that the whole hospital needs to be dementia-friendly.I would like to thank colleagues on the National Audit Programme. Full details are available on http://www.rcpsych.ac.uk /quality/quality,accreditationaudit/nationalauditofdementia1.aspx.

Our Invisible Addicts

Abstract Number: 29
Authors: Crome I, Rao T, Tarbuck A, Dar K, Janikiewicz S
Institutions: Keele University, 62 Sutherland Drive, United Kingdom

The presentation will outline key aspects in the 2011 Report of the Royal College of Psychiatrists in the United Kingdom on Substance Misuse and Older People. The objectives were to examine the extent of the problem, identify precipitants and complications, highlight best practice guidance, explore training opportunities and develop future strategic developments in clinical treatments, service developments, policy and research. The report produced an enormous reaction from the profession and the media, the latter focusing largely on safe limits for alcohol consumption. The findings demonstrated that national surveys of consumption of alcohol and drugs, presentations to specialist services and hospital admissions identified increasing prevalence of substance misuse (alcohol, illicit drugs, prescribed medications) in older people, with projected doubling in the next two decades. It drew attention to the fact that although impressive strides had been made in improving treatment for substance misusers, older people had not received the appropriate level of attention compared with young and adult substance misusers. Furthermore, in order for treatment programmes to be implemented, practitioners need to be trained to assess and screen older people, while the public need to be made aware of the problem and seek help. The effectiveness of treatment in this group was underlined, thereby dispelling the myth that older people were unlikely to benefit. Indeed, older people might do better than their younger counterparts. Finally, since it called for better coordination of older people's mental health, addiction and geriatric services, underpinned by dedicated research funding, this neglected topic is likely to generate debate. These recommendations are relevant to other European countries.

Antidepressant therapy and therapeutic drug monitoring (TDM) in polymorbid elderly patients

Abstract Number: 30

Authors: Paluch Z[1], Richter T[2], Hermankova Z[1], Mottlova J[1], Sadilkova L[1], Vyhlidalova I[1], Alusik S[1]

Institutions: [1]Department of Clinical Pharmacology, Department of Internal Medicine I, Thomayer Hospital and Postgraduate Medical School, Prague, Czech Republic; [2]Department of Geriatrics, First Faculty of Medicine, Charles University in Prague, Czech Republic

Introduction: Therapeutic drug monitoring (TDM) has been recently extended to embrace the class of antidepressants. Most of the recommended levels have been set on the basis of data from clinical trials conducted in series of young patients without any associated diseases. In these patients, a significant association between the plasma levels and clinical effect has been demonstrated. Citalopram is among one of the most oft-used depressants in internal medicine. It belongs to the class of selective serotonin reuptake inhibitors. Its pharmacokinetics and pharmacodynamics in elderly and very old patients differ from those in the other age groups of patients. As a result, antidepressant therapy in patients aged over 60 is initiated using lower doses. At a daily dose of 20 mg citalopram, the average serum levels upon reaching steady state are 130 ± 70 nmol/l, and there is about a ten-fold difference between through and peak levels. The therapeutic range of citalopram is between 92 and 767 nmol/l, with optimal levels in terms of clinical efficacy being in the range of 307 and 767 nmol/l. Levels over 1227 nmol/l are considered toxic.

Aim of the study: Our study was designed to determine the levels of citalopram in our polymorbid patients and the proportion of patients reaching the optimal therapeutic range while on the usual dosage schedule.

Patients and methods: We examined a total of 94 elderly polymorbid patients taking citalopram at least at a dose of 20 mg daily. In those enrolled into the study, through citalopram levels were determined by high-performance liquid chromatography (HPLC) with UV detection using a commercially available Benzodiazepines and TCA set (Chromsystem, Munich, Germany).

Results: Using the standard dosage schedule of 20 mg citalopram, the therapeutic range was achieved in 60 (62.2%) patients; of this number, optimal therapeutic range was achieved in only 13 (13.8%) patients. The number of patients not achieving the therapeutic range was 30 (31.9%); citalopram levels were not detected in another 4 (4.3%) patients.

Conclusion: One in three polymorbid elderly patients receiving low-dose citalopram does not reach the plasma levels within the therapeutic range. Our results show the issue of antidepressant therapy in elderly polymorbid patients will require more attention in the future.

Cognitively impaired older patients' experiences of care on a Medical and Mental Health Unit compared to standard care wards in a general hospital: a controlled clinical trial

Abstract Number: 31

Authors: Goldberg SE[1], Whittamore K[1,2], Harwood RH[2], Gladman JR[1]
Institutions: [1]University of Nottingham, Division of Rehabilitation and Ageing; [2]Nottingham University Hospital, Healthcare of the Older Person, United Kingdom

Introduction: Nottingham University Hospital (UK) developed a Medical and Mental Health Unit (MMHU) as a demonstration model of best practice care for older people with cognitive impairment admitted to the hospital as a medical emergency. A randomised controlled trial (NIHR TEAM trial) is evaluating patient outcomes between the MMHU and standard care. The aim of this study was to compare patient experience between the MMHU and standard care.

Methods: Patients were randomly sub-sampled from those randomised to the NIHR TEAM trial. Patient experience was measured, by two observers, using Dementia Care Mapping, a structured, non-participant observational tool. Using this method, every five minutes, for 6 hours, patients' apparent mood or level of engagement and activity was coded. Staff behaviours which met or disregarded the psychological needs of the patient for warmth, inclusion, identity, acknowledgement and occupation were coded as enhancers or detractors. Environment noise was recorded (alarms/telephones, background noise, patients calling out). Observations were between 07:00 and 20:30. Inter-rater reliability was confirmed.

Results: 90 observations (46 MMHU versus 44 standard care wards) were Patients on MMHU compared to standard care wards experienced: a higher proportion of time in positive mood and engagement (median (IQR) 79% (68–91%) versus 68% (61–79%), $p = 0.03$); more enhancers (median (IQR) 4 (1–8) versus 1 (0–3), $p < 0.001$); a lower proportion of time where there was environmental noise (median (IQR) 79% (74–88%) versus 92% (81–96%), $p < 0.001$), but a higher proportion of time with patients calling out (median (IQR) 21% (4–40%) versus 6% (2–22%), $p = 0.04$). There was no difference in the proportion of time patients spent active or the number of detractors experienced by patients.

Conclusion: Patients had a better experience of care on the MMHU than on standard care wards because they spent more time in a positive mood, and experienced more enhancers. There was less ward noise. However, there were more patients who were calling out on the MMHU.

This abstract presents independent research commissioned by the National Institute of Health Research (NIHR) under its Research for Patient Benefit (RfPB) programme (Grant Reference Number PB-PG-0110-21229). The views expressed are those of the author and not necessarily those of the NHS, the NIHR or the Department of Health.

 Prague Medical Report / Vol. 113 (2012) Suppl., p. 38–39

Session X

Workshop III – Nutrition Therapy

Moderator: Tamara Starnovska (Czech Republic)
Panellists: Jean-Pierre Baeyens (Belgium), Hana Matejovska Kubesova (Czech Republic), Jitka Tomesova (Czech Republic)

Problem of malnutrition in elderly population

Abstract Number: 32
Authors: Starnovska T
Institution: Czech Nurses Association (CNA), Section of Nutrition and Nutrition Care, Czech Republic

The problem of malnutrition is very serious in elderly population. Malnutrition of elderly negatively influences their overall health status and correlates with bad prognosis. Various studies show 15–60% institutionalized elderly suffer from malnutrition.

Give an example – based on different stimuli from Czech senior homes, where the local staff felt urged to conceptually approach their clients' nutritional needs, Nutricia developed and tested an education program the goal of which was to implement standardized nutrition care in senior homes. 8 of 9 senior homes successfully completed the education program. All facilities consider it as very contributory to both clients and their families and senior homes staff members. Objective data collected shows significant improvement in the nutrition status of the senior homes clients.

The project A Standardization of a Nutritional Care in Elderly Homes shows that is a highly effective tool for implementation of Nutritional Care System.

The real expert for implementation of Nutritional Care System in Czech Republic is a nutrition therapist.

The role of nutrition therapists:

– Examinatin of nutritional status of patients including laboratory markers of malnutrition.
– Nutrition history (including preferences of foodstaffs).
– Search patients of nutritional risk.
– Individual nutritional regimen.
– The changes of diet after the patients wishes.

– The recommendations of nutritional care – combined nutrition (enteral and parenteral nutrition).
– The examination of dietary intake.
– The balance of dietary intake.
– Continual follow up and evaluation of nutritional status.
– The education of the patients and theirs family.
– The follow up and consultation after end of hospital stay.
– Cooperation during combination of parenteral and enteral nutrition with diets.

Session XI

Symposium "Vitamin D"

Chairs: Harriet Finne-Soveri (Finland), Hana Matejovska Kubesova (Czech Republic)

Vitamin D as a pleiotropic hormone

Abstract Number: 33

Authors: Matejovska Kubesova H[1], Bielakova K[1], Topinkova E[2]

Institutions: [1]Department of Internal medicine, geriatrics and GP, Medical Faculty of Masaryk University Brno, Jihlavska 20, Brno, Czech Republic; [2]Department of Geriatrics, First Faculty of Medicine, Charles University in Prague, Londynska 15, Prague, Czech Republic

Vitamin D as one of liposoluble vitamins has in clinical practice so far been related to children age and skeletal development. During the last years however, there has been a great deal of new information considering a rather more complicated involvement of vitamin D in a variety of processes and functions of the human body. So there is necessary to consider vitamin D not only as a vitamin but as a potent pleiotropic hormone. Vitamin D receptors were indentified in almost all tissues of human body. We can follow a growing body of information about the relationship between vitamin D and individual organ systems and their disorders currently.

The long-term lack of vitamin D significantly potentiates cognitive deterioration in the elderly, influences the mood up to depression appearance. The positive relationship between vitamin D and the immune system functioning manifests in decreasing number of infective complications. Protective effect in carcinogenesis appears to be of high importance too. The positive influence of adequate vitamin D levels on cardiovascular health – especially hypertension, cardiac failure and ichaemic heart disease becomes evident as well. From the senior's self-sufficiency point of view the relationship between vitamin D and sarcopenia is very important especially in connection with osteoporosis prevention – the way how to reduce the danger of falls and osteoporotic fractures. On the other hand, as we are currently able to measure the serum level of vitamin D, we have a chance to check and maintain the recommended level of vitamin D.

Use of vitamin D in European nursing homes

Abstract Number: 34
Authors: Finne-Soveri H[1], Björkman M[1], Vlachova M[2], Fialova D[2], Topinkova E[2], Matejovska Kubesova H[3]
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Introduction: Older persons with multiple morbidities including dementia, and functional decline, residing in nursing homes, have limited opportunities to be outside the facility, and thus be exposed to sun. Cardiovascular diseases, diabetes, osteoporosis and depression are common. Sarcopenia and poor balance result falls and hip fractures. In addition, pain is prevalent.

Among the multiple benefits of Vitamin D are risk reduction for cancer, mortality, falls, and fractures. It supports functional capacity by improving neuromuscular functions, and has shown positive effects on bone and muscles. Vitamin D may also protect heart, cognition, and provide relief in neuropathic pain in DM-2 patients. Therefore, in several countries, a daily supplementation of 700–1000 IU has been recommended for older persons, particularly in nursing homes.

Aim and methods: To investigate use of vitamin D and its associates in 59 nursing homes in 8 countries, in Europe. Data was collected using interRAI LTCF form (www.interrai.org) that in addition to drug data includes systematic information about the diagnoses, balance, nutritional and functional status, and symptoms such as falls or pain. Use of vitamin D was cross tabulated with its potential associates. Strongest of those were added to multivariate models in order to find out independent associates of vitamin D.

Results: Of the 3,846 persons that were 65 years old or older and had drug data recorded, 23.4% (n = 898) received vitamin D. More than half of that was in combination with calcium (55.6%). Lowest use of vitamin D by facility was found in Germany, Israel and Italy (0%) and highest in Finland (95%).

The independent associates for the use of vitamin D were: spends time with activities (OR 2.2, 95% CI 1.74–2.60), hip fracture (OR 1.8, 95% CI 1.09–2.83), diagnosis of Alzheimer's disease (OR 1.7, 95% CI 1.44–2.07), fatigue (OR 1.4, 95% CI 1.16–1.59), carers believe the person will improve performance in physical function (OR 1.4, 95% CI 1.40–1.70), ADL status declined within during 90 dd (OR 1.3, 95% CI 1.09–1.60), unsteady gait (OR 1.2, 95% CI 1.01–1.39), and Diabetes Mellitus (OR 0.7, 95% CI 0.54–0.80), C-statistics for the model were 0.651.

Conclusions: The use of vitamin D was inconsequent and varying from site to site. The potential benefits of the use of vitamin D seemed poorly taken into account.

Supported by the EU SHELTER Project 7FP HEALTH-F2-2009-223115.

Vitamin D supplementation in nursing homes

Abstract Number: 35

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Introduction: Vitamin D supplementation with serum levels of vitamin D higher than 60 nmol/L and 75 nmol/L improved muscle and bone strengths. Despite potentially negative effect of low serum vitamin D levels on adverse health outcomes (mortality and morbidity) there are no universally accepted guidelines or recommendations for vitamin D supplementations in long term care.

Aim and methods: Use of vitamin D was evaluated in 460 long-term-care residents from 10 nursing homes and social nursing care facilities in the Czech Republic as part of the larger sample of SHELTER study in 8 European countries (www.Shelter-elderly.eu). Clinical data was collected using interRAI Long-Term Care Facility (LTCF) instrument (www.interrai.org). Use of vitamin D was recorded and compared in residents with and without falls and fractures. Further guidelines and recommendations at country level and individual nursing home policies have been recorded.

Results: The prevalence of vitamin D supplementation was low with only 10.2% of residents receiving vitamin D (3.8% in male, 14.4% in female), the most common being Vitamin D3. Residents with the diagnosis of osteoporosis, history of bone fracture and falls were more frequently supplemented with vitamin D and Calcium.

Conclusions: The use of vitamin D in Czech long-term care facilities was low considering the reported high prevalence of vitamin D deficiency with significantly higher supplementations in residents with the history of falls and fractures. There is no national guideline on vitamin D supplementation in long-term care facilities and no facility had a vitamin D supplementation policy in place. Based on current practice guidelines, i t is recommended that vitamin D supplementation should be implemented in all patients in residential aged care facilities with no contra-indications present. A daily intake of 800–1000 International Units of vitamin D3 is recommended, in some guidelines with monitoring of 25-hydroxyl vitamin D

(25 OH Vit-D) blood levels. In addition to vitamin D, calcium supplementation has shown to enhance the effect of vitamin D on bone. Calcium intake should be optimized (1200–1500 mg per day recommended) and supplementation offered to those with inadequate intake with necessary safety measures (tolerance, history of kidney stones, and emerging data regarding its cardiovascular safety).

Supported by the EU SHELTER Project 7FP HEALTH-F2-2009-223115.

Vitamin D and tumours – sun and tumours – vitamin D and sun. Triangle of conflict or synergy?

Abstract Number: 36

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Vitamin D shows the ability to inhibit mitogen-activated protein kinase (MAPK) and thus negative growth regulation of mammary carcinoma cells both in vivo and in vitro. The mechanism of action is interpreted in two ways: it regulates gene transcription of the gene through the specific intracellular vitamin D receptor (VDR) and, by means of activation of transmembrane transfer, it induces a fast non-transcriptional response of the character of modification of growth factors and peptide hormones. Based on these activities there occurs an antiproliferative, proapoptotic influence on many cell lines.

In discussions on the mutual relationship between vitamin D and tumorous growth there frequently appears the theme of exposure to solar radiation as a significant source of vitamin D for man in contrast to the rising occurrence of malignant melanoma, in whose pathogenesis exposure to solar radiation plays indeed an important role.

In discussions regarding the mutual relationship between the vitamin D level and potential antiproliferative action and solar radiation as the principal presumed pathogenetic factor of the development of malignant melanoma, but also as a source of vitamin D, there arises the question of quantity, i.e., what the optimal serum level of vitamin D should be. Many authors denote values between 70 and 100 nmol/l as optimal, both for patients with malignant melanoma and for the healthy population.

The relationship evaluation between sun exposition and the harm of the skin must reflect different types of skin, their sun burn time (SBT), different types of outdoor activities and recommended dose of sun exposition as a vitamin D source.

 Prague Medical Report / Vol. 113 (2012) Suppl., p. 44–45

Session XII

Oral presentations

Chairs: Reijo Tilvis (Finland), Katarzyna Szczerbinska (Poland)

Health and survival of old disabled war veterans in Finland

Abstract Number: 37
Authors: Tilvis R, Björkman M, Strandberg T, Pitkälä K
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Background: More than 95,000 were suffering from a permanent war injury after the World War II. The Finnish State took the main responsibility for the care of the disabled war veterans. Rehabilitation was given four weeks per year, if the disability degree was at least 30%. If the war disability degree was less than 30% but at least 10%, the person was also entitled to the 2-week rehabilitation yearly. Already in 1940 the Disabled War Veterans Association together with other organisations started the rehabilitation of disabled war veterans. Today, the Association, as a "third sector" organiqsation, is especially committed to providing support to help disabled war veterans to live at home. The most important tasks today is to improve their statutory treatment and compensation cover and to provide counselling services. Compared to other people the disabled war veterans have been given much more rehabilitation. Today there are 7,000 disabled war veterans alive in Finland.

Purpose: To compare the health and survival prognosis of old disabled (wounded) male war veterans with those of other men.

Subjects: Three different prospective populations samples (N = 2,479 men) started in 1990–2003 included data on 463 disabled male war veterans. The census status was followed until 2010.

Results: The mean age of disabled men was 81.3 years and 94% were living at home. The high frequency of poor hearing among the disabled was the only consistent difference compared to other men. The age-adjusted mortality of disabled war veterans was 22% lower (95% CI 10–32%, $p < 0.001$) than that of other veterans (Table 1). The best survival prognosis was found in the group with lowest disability degree (0-class = disability < 10%).

Table 1. Survival of disabled and not wounded war veterans

Group by disability degree	Number	Age, years	Survival, years		
			Mean	Median	95% CI of median
Not wounded	2016	81.3	5.6	5.2	4.9–5.5
0–30%	340	81.0	6.9	6.6	5.9–7.5
30–100%	123	82.8	5.7	5.9	4.6–7.2
< 10% (0-class)	57	79.5	7.0	7.4	5.9–9.4

Conclusion: The data suggest that the long-term rehabilitation and counseling have had beneficial effects on the health of disabled war veterans in old age.

Falls in the elderly Polish population and their relation to sensory deficits – results of PolSenior Project

Abstract Number: 38

Authors: Piotrowicz K, Skalska A, Klich-Rączka A, Wizner B, Klimek E, Grodzicki T
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Aim: To assess the prevalence of falls in the Polish population aged 65+ years in comparison to the younger respondents aged 55–59 years, and their relation to the visual and hearing deficits.

Material and methods: The presented data is a part of the results of a nationwide study (PolSenior) which was carried out in the Polish population of 55–104-year-olds. On the basis of questionnaires history of falling in a 1-year time was assessed. Binocular visual acuity was tested with correction using Snellen arrays for near. In severe visual impairments, the subjects were asked to count fingers or the sense of light was checked. Hearing was assessed by checking respondent's ability to hear the sound of normal speech and whisper without or with a hearing aid. Respondents were divided into three groups: normal vision/hearing, moderately impaired vision/hearing, severely impaired vision/hearing or blindness/deafness.

Results: Mean age of 4,920 elderly subjects (51.6% men) was 79.4 ± 8.7 yrs. Falls in the last 12 months were reported by 10.4% of the younger and 19.1% of the older subjects. In both groups falls occurred more frequently among women (11.9% vs 8.7%, $p = 0.03$ in the younger, and 22.7% vs 13.2%, $p < 0.001$ in the older group). In both age groups falls occurred more frequently in the subjects with poor vision. Hearing loss showed no relationship with falls' occurrence in the younger group;

in the older group falls occurred more often among subjects with hearing loss. The proportion of elderly fallers increased with both, the vision (from 16.8% in group without visual impairment to 31.6% in those with severely impaired vision, p = 0.0002; respectively among those aged 55–59 yrs: 9.1% and 35.9%, p = 0.003) and hearing impairment (from 17.4% in group without hearing impairment to 41.3% in those with severely impaired hearing, p < 0.0001). In a logistic regression analysis, after adjustment for age and gender, visual and hearing impairments were independently associated with increased prevalence of falls in the elderly group.

Conclusion: In the Polish elderly population falls occurred less frequently than it has been reported in literature. The relation between falls' prevalence and sensory deficits, and its severity were shown.

Functional deficits as an indicator of deprived mental and general medical status in the elderly – preliminary data from PolSenior Project

Abstract Number: 39
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Aim: To compare elderly subjects' biopsychosocial characteristics accordingly to their functional status.

Material and methods: The presented data is a part of the results of a population-based nationwide study (POLSENIOR Project) which was carried out in the years 2007–2011 in the Polish population of 55–104-year-olds. Functional status was assessed based on Instrumental Activity of Daily Living Scale (IADL) and an impaired functional status was defined as IADL score lower or equal to median group's result (23 points). On the basis of questionnaire, we analyzed medical history. Moreover, cognitive function (Mini Mental Test Examination, MMSE), mood status (Geriatric Depression Scale, GDS), functional status (Activity of Daily Living, ADL) were assessed. For each respondent a Body Mass Index (BMI) was calculated.

Results: The group consisted of 4,863 respondents aged 65 years and more (51.45% men). Median IADL result in the whole group was 23 pts [range 17–24]. Impaired functional status (median IADL ≤ 23 pts) was observed more often among women than in men (54.21% vs 50.04%, p = 0.004). Subjects who presented lesser IADL results were significantly older: 83.45 ± 8.1 yrs vs 74.85 ± 6.93 yrs (p < 0.0001). Moreover, in comparison with subjects with preserved daily living functioning

those with impaired functional status reported significantly higher number of hospitalizations due to myocardial infarction or heart failure; neurological diseases (such as stroke, Parkinson disease, epilepsy), respiratory system diseases, chronic kidney failure, anemia. Similarly, falls and hip fractures were observed significantly more often among those with poorer physical functioning. On contrary, hypertension, as well as arrhythmias were recorded more frequently among fully dexterous respondents. Impaired functional status was observed significantly more often among respondents with cognitive and mood disorders, what is more, a functional status was related to the severity of these conditions. Patients with impaired functional status had significantly lower BMI, suffered from more illnesses and took more drugs.

Conclusion: Presented population based study demonstrates that subjects with impaired functional status are characterized by worse both mental and general medical condition. Therefore, it supports the thesis that IADL scale might be useful to indicate subjects at emerging risk of frailty syndrome.

The Role of Primary Prevention to Chronic Disease of the Elderly Community in Urban Jakarta

Abstract Number: 40
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The main risk factor of chronic diseases is the external factor surroundings the elderly. By the controlling the external factor, people will increase a healthy live style and it can prevent and decreasing the disease effectively. Recently many people have coronary heart disease in the young age, on 40–50 years old. On 2001, there were more than 15 million people suffering heart disease or it was 25% of total death resulting the disease. The objective of this research was to obtain the role of primary prevention of chronic disease of elderly in urban DKI-Jakarta.

The subjects of this research were 60 year olds or older elderly, who live in the 5 regions of DKI Jakarta. This is a cross sectional survey and there were 1,001 samples which be taken with 3-fold cluster-stratification. The result of this study showed that the prevalence of chronic diseases in urban DKI-Jakarta reached three fourth and joint disturbance is the first ranking of the the highest prevalence. The periodically check up and followed by health education routinely could prevent the chronic disease. Diet that conducted by the elderly will protect them from disease and moreover consuming the vitamine & mineral will prevent from chronic as well as non chronic diseases. To conduct the sport activity regularly and to avoide smoking were the prevention of the chronic disease of elderly.

Eating habits and nutritional status as factors influencing the occurrence of cognitive impairment among older residents of nursing homes in Kraków

Abstract Number: 41
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A relation between incidents of dementia and earlier weight loss was demonstrated [Steward et al., 2005]. The aim of the research was to assess eating habits and nutritional status and to determine the relationship between these factors and the cognitive impairment among elder residents of nursing homes. The research was conducted in 2011. The study group consisted of 101 elderly residents of three different Social Welfare Homes (DPS) in Krakow. Average age was 75.8 ± 10.14 years. Patients were divided by age into two subgroups: 60–75 years (n = 53), 76 years and more (n = 48). To assess the cognitive impairment, the MMSE scale was used. To examine the risk of malnutrition – the MNA scale. An assessment of eating habits was carried out using a FFQ. An examination of the level of independence in performing simple as well as complex activities of daily routines was done accordingly to ADL and IADL scales. The relationships between cognitive impairment, nutritional status, eating habits, independence and selected socio-economic factors were determined using Spearman correlation. Among the inhabitants of the DPS, cardiovascular disease and diabetes were most frequent. Dependence in performing simple activities of daily life touched 33%, while 75% had problems with the performance of complex activities (IADL scale). The mean MMSE score was 23.3 ± 5.97 points. Only 23.5% of respondents did not suffer from cognitive impairment, 36.5% had mild cognitive impairment, while 40% had dementia. There was a relationship between cognitive decline and age ($Z = –0.234$, $p < 0.05$) as well as education ($Z = 0.318$, $p < 0.01$). Malnutrition according to MNA was found in 2% of respondents, while the risk of malnutrition affected 32%. As concerns BMI (WHO criteria), weight deficiency affected 7% of respondents, while 55% suffered from obesity. The risk of malnutrition or its occurrence were correlated with statistically significant results of the MMSE ($Z = –0.34$, $p < 0.001$). There was also a negative correlation between the severity of dementia and the intake of selected food products (cheese, processed cheese and sweets).

Among nursing home residents to monitor the nutritional status should be carried out including the assessment of cognitive function.

Poster Session Abstracts

Arterial stiffness, carotid atherosclerosis and left venticular diastolic dysfunction in postmenopausal women

Poster Number: P01
Authors: Albu A, Fodor D, Bondor C, Poanta L, Staciu R
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Background: Postmenopausal women have an increased cardiovascular morbidity that may be explained by the increase in classical cardiovascular risk factors and also by the arterial structure and function alterations. The aim of our study was to evaluate the association of aortic pulse wave velocity (PWV) as a marker of arterial stiffness and carotid intima-media thickness (IMT) with left ventricular diastolic dysfunction in postmenopausal women.

Patients and methods: In this study were included 96 women (never smokers) without overt cardiovascular disease (age 62 ± 7.7 years) and with normal left ventricular systolic function. Aortic PWV was assessed using an oscillometric device. Carotid IMT was measured by B-mode ultrasonography and left ventricular diastolic function was assessed by a transthoracic echocardiographic examination.

Results: Left ventricular diastolic dysfunction was found in 46 patients (47.9%); all of these patients had mild left ventricular diastolic dysfunction. Mean aortic PWV was 9.65 ± 1.98 m/s and mean carotid IMT = 0.84 ± 0.17 cm. Pearson correlation showed that aortic PWV had a negative correlation with E/A ($r = –0.33$, $p < 0.001$) and a positive correlation with DTE ($r = 0.23$, $p = 0.03$). At the same time IMT showed a negative correlation with E/A ($r = –0.39$, $p < 0.001$) and a positive correlation with DTE ($r = 0.33$, $p = 0.001$) and with IVRT ($r = 0.24$, $p = 0.02$). Plaque score inversely correlated with E/A (–0.40, $p < 0.001$) and directly correlated with DTE $r = 0.34$, $p < 0.001$) and with IVRT ($r = 0.30$, $p < 0.001$). We found that patients with left ventricular diastolic dysfunction have significant

increase in age ($p < 0.0001$), aortic PWV ($p < 0.0001$), carotid IMT ($p = 0.0002$) and plaque score ($p = 0.004$) compared with patients without left ventricular diastolic dysfunction. In a logistic regression analyze (Forward), after adjusting for age, only aortic PWV was a significant predictor of left ventricular diastolic dysfunction (O.R. = 2.15, 95% CI 1.39–3.31, $p = 0.0006$). In the study group there were 47.9% hypertensives, 25% patients with diabetes mellitus or impaired glucose tolerance, 41.6% with hyperlipemia and 31.2% with obesity or overweight.

Conclusions: In postmenopausal women, increased aortic PWV and carotid IMT are associated with left ventricular dysfunction. Aortic PWV may be an independent predictor of left ventricular diastolic dysfunction.

Markers of oxidative stress in elderly patients with cardiovascular disease

Poster Number: P02
Authors: Constantin GI, Opris S
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Objectives: Major independent risk factors for coronary artery disease (CAD) are advancing age, elevated blood pressure, elevated serum total and LDL cholesterol levels, low serum HDL cholesterol level, diabetes mellitus, and cigarette smoking. Cardiovascular risk factors generate oxidative stress in the vessel wall. Oxidative stress results from an imbalance between oxidant production (or the formation of reactive oxygen species) and antioxidant defenses. Elevated oxidative stress and superoxide anion formation in vascular cells could promote conversion of low density lipoprotein (LDL) to atherogenic oxidized LDL (oxLDL). As LDL traverses the subendothelial space it becomes oxidized, prior to advanced lesion formation, and may induce endothelial dysfunction, one of the earliest manifestations of atherosclerosis.

Methods: The study was proposed to assess oxidatively modified lipoproteins in a group of healthy subjects (58.69 ± 4.71 years), versus a group of subjects with cardiovascular disease (70.24 ± 6.36 years). The LDL susceptibility to in vitro induced lipid peroxidation was evaluated following its incubation with a prooxidant system.

Results: The results obtained showed an significant increase of LDLox susceptibility at cardiovascular disease group compared with a healthy group (5.79 ± 1.63 vs 3.21 ± 1.58 mmoli MDA/dL serum) and suggest an important role for ox-LDL in the genesis of plaque instability in human coronary atherosclerotic lesions.

Conclusions: The observed association between CAD and serum levels of oxidized LDL, suggests that the assay may be a useful tool to investigate the causal role of oxidized LDL in atherosclerotic cardiovascular disease in a prospective study.

Haemodynamic and metabolic correlation in hypertension patients

Poster Number: P03
Authors: Morosanu AI, Ilie AC, Ciocoiu M, Bădescu M, Alexa ID
Institutions: University of Medicine and Pharmacy Gr. T. Popa; Department of Geriatrics, Romania

Introduction: Serum uric acid (UA) and hyperlipemia have been implicated in the pathogenesis of hypertension. Several potential mechanisms such as impaired vascular endothelial function or impaired arterial compliance are known. Aging leads to a multitude of changes in the cardiovascular system and a hallmark of this process is increased vascular stiffness.

Aim: The research focuses to investigate the relationship of UA to arterial stiffness (PWV) and other cardiovascular risk factors in treated patients, elderly/adults, with hypertension.

Material and Methods: 96 patients, elderly and adults, admitted to the Geriatric Department and Internal Medicine Clinic of "C. I. Parhon" Hospital were evaluated in terms of arterial stiffness and cardiovascular risk factors through the biochemical profiles (UA, glucose levels and lipid profile) and pulse wave velocity (PWV).

Results: UA is direct correlated with heart rate ($r = +0.13$) at all patients. The levels of UA in hypertensive patients treated with diuretics are significantly increased ($p = 0.01$) versus patients treated with calcium channel blockers ($p = 0.04$). The average values in PWV are notable in all hypertension patients treated with diuretics than the other antihypertensive drugs (calcium channel blockers or ACE inhibitors). Individual values of PWV are highly correlated with UA ($r = +0.82$) and total cholesterol ($r = +0.77$). Average correlations were registered with LDLC ($r = +0.48$) and low with glucose level ($r = +0.34$). No correlations were observed between HDL, triglyceride and PWV. The cardiovascular factors investigated (glucose, total cholesterol, LDLC, HDLC and triglyceride) aren't significantly correlated with UA in elderly or in adults. By age group, average values of UA and PWV showed no significant differences statistically.
Conclusions: In summary, serum UA was an independent predictor of arterial stiffness as well as total cholesterol, LDLC and impaired glucose both to elderly and adults hypertension patients.

Cardiologists' Knowledge and Awareness of Guidelines for Medical Device Safety and Product Risk Management

Poster Number: P04
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Institutions: Ted University, Turkey

Over the last three decades there has been an explosion in the variety and complexity of medical devices, which have been used increasingly in patient care. However the development of adequate practice guidelines, standards, supporting resources and infrastructure has not been keeping pace with the evolving integrated and networked systems, especially for a developing country such as Turkey. This study aims to investigate the knowledge, awareness and attitudes of cardiologists about the risk and benefits associated with medicines and medical devices and equipment, and of how well they are regulated and communicated in Turkey. An on-line questionnaire has been developed which include questions about the level of education and experience; perceptions of the risks and benefits associated with medicines and medical devices; experiences of medicines and medical devices; perceptions of, and attitudes towards, the regulation of medicines and medical devices; attitudes towards the communication of information about the risks and benefits associated with medicines and medical devices. 250 members of the Turkish Society of Cardiology responded to the on-line questionnaire. The majority of respondents agree that medical devices and equipment are not adequately regulated at the moment in Turkey. Moreover they believe that manufacturing companies have too much influence on how medical devices and equipment are regulated. The majority of the cardiologists value recommendations from colleagues. When making risk/benefit decisions, surgeons rely on sharing information about the merits and drawbacks of particular devices within their local peer groups, especially Turkish Society of Cardiology, rather than using more formal avenues. Cardiologists would be most likely to turn to the risk assessment unit at the hospital they work for. Then they would like to report the adverse events to the Ministry of Health of Turkey General Directorate of Pharmaceuticals and Pharmacy, which is the main regulating institution in Turkey. The qualitative analysis results indicate that efforts should be directed to inform cardiologists about the functioning of General Directorate of Pharmaceuticals and Pharmacy and the guidelines of medical device regulations.

Circadian patterns in hypertensive elderly

Poster Number: P05
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Summary: High blood Pressure (HBP) in elderly is the most important cardiovascular risk factors and one of the main causes of heart failure. A precise treatment is necessary to reduce the risks to a minimum. We try to study the circadian rhythm in older people with high blood pressure by ambulatory blood pressure (ABPM).

Objectives: Study the different circadian patterns in elderly and check the effectiveness of the antihypertensive treatment.

Methodology: A transversal study, in a geriatric consulting room, with ABPM in >75 years old hypertensive patients.

Results: N: 526 patients. Sex: 65.7% female, 34.25% male. Cardiovascular risk factors: diabetes mellitus 38%, hypercholesterolemia 39.57%. Cardiovascular events: acute stroke 22.91%, ischemic cardiopathy 26.5%. Treatment to HBP: 38.3% 1 drug, 22.5% 2 drugs, 19.76% 3 drugs, 19.43% no drugs. Circadian patterns: 17% dipper, 47% no dipper, 34% riser, 2% extreme dipper

Conclusions:
– Treatment for the HBP in elderly patients is insufficient because the most frequently circadian pattern is "no dipper" and also "riser", with high risk to cardiovascular events.
– Although we know the HBP is the most important cardiovascular risk, 19.43% of our patients are not on medication.
– The ambulatory blood pressure is a reliable method to monitor the effectiveness of the treatment.

Does heart failure progress always results in impairment of functional status?

Poster Number: P06
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Institutions: Jagiellonian University of Cracow, Collegium Medicum, Department of Internal Medicine and Gerontology, Poland

Background: HF affects exercise capacity and daily living activity. The aim of our study was to find out if laboratory tests used in HF diagnosis and monitoring relate to scores of daily activity and exercise capacity tests in HF patients who were under systematic care of outpatient gariatric clinic.

Methods: We examined 84 patients (33 females, 52 males), over 60 years old (mean 72.46 ± 7.39), with stable HF who have had been under systematic care of our outpatient geriatric clinic. All patients had NYHA class ascertained. They underwent physical examination, echocardiographic examination with EF evaluation and biochemical tests: NTproBNP, OPG, 25 OHD, IL-6, IL-18, STNFR II and pentraxin. Functional status was tested with 6MWT, gait speed, "up-and-go" test, ADL and IADL.

Results: Results were analyzed in 3 groups, formed according to patients' NYHA class: 23 patients with NYHA 0–I; 21 with NYHA II and 33 with NYHA II/III and NYHA III. EF decreased and NTproBNP, vitamine D and inflammatory markers' concentrations increased together with NYHA class. Hand grip was stronger in higher groups. No differences by groups were stated in mean age, gait speed, "up-and-go" tests and 6MWT. Functional status was the best in NYHA II, but not significantly, and decreased in NYHA III.

Conclusions: Sytematic and optimalizied HF management helps preserving patients' functional status in spite of objective progress of the disease measured with echocardiographic and biochemical tests.

The peripheral vascular insufficiency as a common problem in the elderly: topical application of oxygen in leg ulcers

Poster Number: P07
Authors: Paiva L, Rodrigues RMC, Paiva FMMC
Institutions: Nursing School of Coimbra, Portugal

Introduction: Portugal is walking quickly to a progressive increase of elderly, with a consequent increase of venous and arterial pathology. Vascular insufficiency, according to epidemiological data, is responsible for a large number of general practitioner consultations and treatments per year, with higher prevalence in females (2 to 1) and higher expression over 45 years. There been numerous solutions to speed healing and recovering of leg ulcers effectively, seeking minimize costs and improve patients quality life. Studies confirm that tissue oxygenation has a positive effect on the healing process and closure of the wound. The topical application of oxygen in patients with wounds using a handheld camera, has triggered a great interest in the scientific community, and clearly decreases the level of amputation (about 95%) in patients undergoing such treatment.

Aims: Estimate the progress of wound healing with topical oxygen; evaluate benefits of using topical oxygen in leg ulcers.

Methodology: It's a Study (pilot) quasi-experimental. Sample (experimental group) of 11 patients aged between 51 and 85 years, receiving outpatient treatment at a Health Center.

Development: Treatments were executed with a portable oxygen camera to 11 patients with leg ulcers. Each treatment took 60 minutes and 400 sessions have been done. There was established that the treatment was only to add the topical application of oxygen in the wound bed. The remaining processing was not to be changed. The evaluation and characterization of the wounds were made using PUSH and through a photographic record before and after each treatment in order to verify their progression.

Conclusion: Was evident the evolution of wound healing in the majority of users studied. It was clear the contribution of topical oxygen in the wound bed, for healing leg ulcers, on these study patients.

There is a decrease of edema which contributes to the healing process and significantly exudate reducing. Users report less pain (in their day-to-day life and during the treatment). The cost-effectiveness associated with this treatment is relevant.

Pulmonary Embolism in the Elderly as the Cause of the Death

Poster Number: P08
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Introduction: Pulmonary embolism (PE) in the elderly represents immediate threat of life. Especially in old age clinical signs of PE are non-specific and could be both underdiagnosed and overdiagnosed.

Aim of the study: The retrospective study of dates was aimed at conducting an analysis and comparison of pertinent influence of age, gender and immobility on occurrence of PE and sudden death.

Patient's set and method: Between 1995 and 2010 years we had altogether 12,746 7.0 y. (range 65–103 y.) hospitalised at elderly patients of an average age 80.6 the Department of Geriatrics. Out of this number there were 8,540 women (66.3%) and 4,206 men (33.7%). We divided the patient set into three different age subgroups (65–74 y.; 75–84 y. and ≥ 85 y.; e.g. 21%, 48%, and 31% of all hospitalised patients) and compared the results among them. The number of deaths among all treated patients were 1,576 (12.6%); 934 women (10.9%) and 642 men (15.3%). Section was performed in 965 of the dead (61.2%).

Results: PE was present in 276 of deaths (17.5%); among all obductions in 168 cases (17.4%). Silent PE as incidental finding at autopsy was found in 213 cases of death of PE (77% of them). Sudden death occurred in 142 cases (9% of all deaths): PE as cause 63-times and heart attack or failure 38-times. Immobility seems to be a significant risk factor for both genders regardless of age ($p = 0.001$). Average 7.4 y. The 6.7 y. and for men 80.0 age of the dead of PE was for women 82.5 occurrence of PE for female and male gender for each age periods as mentioned above were: A. 10.6 vs 25%; B. 45.6% vs 40.5%; C. 38.8 vs 30.2%. The peak of occurrence of PE was the age period 75–84 y.

Conclusion: The high occurrence of PE (particularly silent form) has crucial importance in the elderly mortality. Our recommendations would like to emphasize the need of no underestimation of this fact and to carry out preventive measures in all age groups (including "oldest old" and frail persons.

Elderly patients non-insulin dependent diabetes (NIDD). Metformin+Vidagliptin a new therapeutic option

Poster Number: P09
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Introduction: Good control dee NIDD in elderly patients presents difficulties in our daily clinical practice. Lifestyles and unhealthy diets acquired throughout life, are very difficult to eradicate in this age group. The prescription of multiple drugs (polypharmacy) and its possible adverse side effects (hypoglycemia) are factors that cause malcontrol of their disease.

Objective: To assess the degree of basal glycemia (BG) control at baseline and glycosilated hemoglobin (HbA1c) and the adverse side effects in a group of elderly patients and uncontrolled NIDD in hygienic, dietary and pharmacological treatment.

Materials and methods: We included 133 patients (83 ♀ and 50 ♂ aged > 65 years (X: 76.9), which presented HbA1c > 7% (X: 8.2%) all of them treated with two drugs, Metformine 850 mg every 12 hours and Glimepiride 4 mg every 24 hours. During the inclusion of patients in the study were recalled their diet and healthy lifestyle was changed randomly drug treatment in two options: Option A is increased from 4 to 6 mg glimepiride and maintained the previous dose of metformin, Option B – we associate vildagliptin 50 mg to 850 mg metformin in one tablet every 12 hours and keep the dose of glimepiride. And BG was performed 2, 4, 8, and 12 weeks, also evaluated the occurrence of adverse side effects (ASE) in the last control (12 weeks) we also control HbA1.

Results: At the end of the study, we found the next summary: In group A, we observed a decrease in average values of BG since 161 mgs/dl till 125 mgs/dl as well as HbA1c since 8.3 till 7.5%. In group B, there was a decrease in average values of BG since 165 mgs/dl till 130 and in HbA1c since 8.2 till 7.1%. Following ASE were detected in group A, 3 cases of hypoglycemia, which obliges us to restore the previous treatment, in group B, 4 cases of nausea, which resolved spontaneously and do not require treatment modifications.

Conclusion: The good control of HbA1c (7.1%) and adverse effects caused slight and temporary, make the prescribed treatment in group B (50 mg vildagliptin with metformin 850 mg and 4 mg glimepiride) is a interesting therapeutic option for elderly patients with NIDD.

The Relationship between Advanced Glycosylation End Products, Arterial Stiffness and Aging Process

Poster Number: P10
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Introduction: Aging is characterized by an insufficient homeostasis in stress condition; this insufficiency is associated with a decreased viability and increased vulnerability of the individual.

One of the most important causes of aging is non-enzymatic glycation process resulting advanced glycation end products (AGEs). On the other hand, aging is associated with an increased arterial rigidity. Arterial stiffness is strong prognostic marker of all-cause and cardiovascular mortality and is associated with an increased risk of cardiovascular disease both in adults and elders.

Methods: In this prospective study we want to establish the connection between AGEs, arterial stiffness and aging processes. We enrolled patients age 60 and higher, both male and female, with multiple comorbidities. They underwent a geriatric comprehensive assessment including known scales (Mini Mental State Examination, Mini Nutritional Assessment, Geriatric Depression Scale, Activities of Daily Living, Instrumental Activities of Daily Living, Tinetti Balance and Gait Evaluation). We determined arterial stiffness using a non-invasive tonometer and concentration of AGEs using an autofluorescence reader. Also we collected data about cardiovascular risk factors such as dislypidemia, diabetes, hyperuricemia, obesity. All data were statistically analyzed.

Results: Through this communication we are presenting some preliminary results from the ongoing study. We estimated that, in elders, AGEs are related with arterial stiffness and both with a high rate of cardiovascular disease. Also we expect that a high concentration of AGEs is associated with a high all-cause and cardiovascular morbidity. A high concentration of AGEs may also be correlated with an increased abnormal geriatric assessment.

Conclusion: The accumulations of AGEs accelerate the global functional decline that occurs with ageing, including vascular ageing. Both arterial stiffness and AGEs may have an impact in the increasing morbidity in elders. This is one of the few studies that approach this subject.

The Diabetic Registry as a novel approach in improving diabetes management

Poster Number: P11
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Introduction: Type 2 Diabetes is on the rise in USA. Many management strategies exist and registries are being increasingly incorporated in management of chronic diseases. Physicians are being held accountable in meeting standards of care, to the extent that quality is measured and incentivized by many insurers. Currently, this is one of the requirements to qualify a practice as a Patient Centered Medical Home.

Methods: We are a university-affiliated, community-based internal medicine residency teaching program. 36 resident physicians in post-graduate years 1 through 3, seven general internists and one geriatrician practice jointly in our outpatient clinic servicing adult and geriatric patients. Residents and faculty regularly participate in Quality Improvement activities. Currently, patients with diabetes are managed in the traditional, individual care method. Some patients attend diabetic group visits. In order to provide physicians with feedback regarding their quality measures and to improve outcomes we instituted a Diabetic Registry. This tracks all diabetic patients in the practice, and measures quality indicators, i.e. Hemoglobin A1C, urine microprotein, ophthalmic exam, lipid profile, weight and blood pressure. It generates a report at each visit plus quarterly aggregate reports which allow physicians to review and fill in their "gaps in care".

Results: A1C averages for all physicians were reported from the second quarter of 2011 through the first quarter of 2012. At baseline, there is a difference in A1C averages among resident and faculty physician patients. For first year residents' patients A1C averages 9.94, second year 7.78, third year 7.38, internal medicine faculty 7.32 and geriatrician's patients 6.83. There is a trend of getting lower A1C numbers with progression of level of physician experience.

Conclusion: In diabetes management, patient education and self management play a key role. Reporting physicians' own performance may lead to accountability, systematic detection of gaps in care and subsequently improve quality of diabetes control across all years of training. Future reports will help us to continue to measure, analyze and improve our performance.

The steep rise in the incidence of metabolic syndrome during menopause is associated with increasing hsCRP levels

Poster Number: P12

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Introduction: Cardiovascular (CV) events in women show an epidemiological increase in postmenopause (PM); overall, the number of women dying of CV disease (CVD) is higher than with men although, in middle-age individuals, the ratio of CV mortality rates is just the opposite. A key role in the CV morbidity and mortality rates in senior women may be played by the metabolic changes triggered during menopause. The incidence of metabolic syndrome (MS, diagnosed in the presence of 3 of the 5 defining factors, Alberti 2009) increases already during transition to postmenopause (TM, menopausal transition). This part of a prospective six-year epidemiological study was designed to follow the increase in the incidence of MS and related CV risks during TM and PM.

Method: Of the 606 women enrolled into the study and undergoing repeat examinations, age at baseline 45–55 years, age at end of participation 51–61 years, two groups of women with natural menopause were formed: premenopausal (TM, n = 165) and postmenopausal (PM, n = 74) at entry. Depending on the number of MS factors on entry, a total of 6 subgroups were formed: no MS factor (TM0 n = 39; PM0 n = 14), one to two (TM1-2 n = 95; PM1-2 n = 40), and three and more (TM3 n = 31; PM3 n = 20) MS factors. Other investigated parameters included insulinemia, HOMA-IR, and hsCRP, with the whole examination repeated after a period of 6 years. Statistical analysis of data was performed using the paired *t*-test.

Results: There was a marked rise in the incidence of MS (TM: 18.0–30.6%; PM: 27.0–41.7%), primarily in both subgroups with one to two MS factors at baseline (TM1-2: 0–33.0%; PM1-2: 0–28.2%), hsCRP tended to increase during TM in all subgroups: $p < 0.01$ for TM0, TM1-2, and TM3 (with MS incidence decreasing to 75%), and only in PM1-2 in postmenopause ($p < 0.01$). Non-significant changes in hsCRP were observed in PM0 and PM3 (with MS resolving in a single women). The increase in HOMA-IR reached statistical significance only in the PM3 subgroup ($p < 0.05$).

Conclusion: Full manifestation of MS with a significant rise in hsCRP occurred over the six-year period in almost one in three women in 1–2 MS factors in premenopause and postmenopause. The results of our longitudinal epidemiological study have shown that already natural menopausal transition is associated with a significant increase in CV risk in a considerable proportion of women whose metabolic disorder manifests itself by only 1–2 MS factors to be diagnosed at baseline. A more exact assessment of the lifelong impact of the changes studied warrants continuation of the study over a longer period of time.

The study was supported by grant NS10511-3/2009 of the Internal Grant Agency of the Ministry of Health of the Czech Republic.

Rhythm and ECG disturbance as the consequence of serious hyperkalemia caused by inappropriate usage of potassium sparing drugs in elderly patients

Poster Number: P13

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Introduction: The growing number of elderly patients is treated by potassium sparing drugs (potassium sparing diuretics, spironolactone, angiotensin-converting enzyme inhibitors, angiotensin II receptor antagonists, direct renin inhibitors). This farmacological treatment produces the increasing risk of hyperkalemia. Old people are in higher risk due to changes in body composition and drug distribution compartments, limited metabolic and excretion function reserves, decline of senzoric and mental functions with a limited ability to promptly and adequately respond to external changes, polymorbidity and polypharmacy. Hyperkalemia may be asymptomatic until severe and life-threatening arrhythmia may be the first symptom of this ion imbalance. Malignant arrhythmias in extreme hyperkalemia are often the cause of sudden death.

Method: We examined ECG changes and rhythm disturbances in patients with iatrogenic hyperkalemia ≥ 9.0 mmol/L, who were treated by potassium sparing drugs and appraised the farmacological approach and hemodialysis in hyperkalemia.

Results: In patients with severe hyperkalemia we registered high peaked T waves, atrial asystole, III degree atrioventricular block, and disturbance of intraventricular

conduction with bizzare wide QRS complexes. Hyperkalemia was treated conservatively (infusions and farmacological treatment only) or using hemodialysis in addition. The recovery in patients treated by hemodialysis was speedier with early restoration of sinus rhythm.

Conclusion: Hyperkalemia is a life threatening condition that can cause malignant arrhythmias and sudden death if it is not corrected immediately. The most threatened patients are those in older age treated by potassium sparing drugs in which kalemia must be checked thoroughly especially in the case of coincidence of another acute illness. In treatment of severe hyperkalemia hemodialysis is the most beneficial approach.

Physical fitness of older people – validation study of the Short Physical Performance Battery (SPPB) in the Czech Republic

Poster Number: P14

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Introduction: The older people are endangered by frailty that can cause their disability, self-insufficiency, decrease of quality of life and increased need of medical care, institutionalization and mortality. We used the Short Physical Performance Battery (SPPB) in validation study for the first time in the Czech Republic to detect the risk of frailty in the group of elderly people from the Czech population.

Aim and Method: At first we translated the original text of the test from English to the Czech language and then we made validation translation back from the Czech language to English. After that we examined by means of SPPB fitness of elderly persons both institutionalized and from the community.

Results: Investigated group comprised of 145 older men and women of the average 80.38 years of age. Good physical fitness was found in 35 persons (24.1%), 21 persons (14.5%) were classified as pre-frail and 89 (61.4%) as frail in high risk of future disability. We compared the results of SPPB with results clients achieved in Minimental State Examination (MMSE), Activities of daily living performance (ADL) and Mini Nutrition Assessment. In the total sample the results of SPPB correlated

with scores nutritional status (MNA), activities of daily living performance (ADL) and cognitive capacity (MMSE) – (ρ = 0.514, 0.532 and 0.379 resp.). In the subanalysis of three age-related subgroups I–III (≥75years, 76-85 years and 86–101 years of age) we found statistically significant correlation among SPPB and MNA, ADL and MMSE in the group of the youngest elderly (ρ = 0.743, 0.7888 and 0.642 resp.). In the middle group of age of 76–85 years SPPB results correlated only with MNA (ρ = 0.418). There was no significant correlation between SPPB score and results of MNA, ADL or MMSE in the oldest age group over 85 years of age.

Conclusion: SPPB test is the useful tool for identification of older persons in high risk of frailty.

On the basis of the results of SPPB we can engage the endagered older people in special interventional exercise programmes to prevent development of frailty.

The diagnosis of osteoporosis in the Polish elderly population – preliminary results of PolSenior Study

Poster Number: P15

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Aim: To assess prevalence of diagnosis of osteoporosis in the elderly inhabitants of Poland.

Material and methods: The presented data is a part of the results of a population-based nationwide study (PolSenior) which was carried out in the years 2007–2011 in the Polish population of 55–104-year-olds. On the basis of questionnaires the presence of osteoporosis in anamnesis was assessed and basic demographic data were collected.

Results: The mean-age of 5,676 respondents was 76.55 ± 10.98 yrs (50.92% men). The diagnosis of osteoporosis in the whole examined group reported 13.63% subjects; 7.58% of the respondents aged 55–59, 16.37% of those aged 65+ years. Osteoporosis was diagnosed in 13.43% of probates aged 65–69, in 17.77% of those of 70-74 years old, 18.36% of 75–79 years old, 17.64% of those aged 80–84 years, 16.81% of 85-89 years old and 12.51% of those aged 90 years old and more; $p < 0.0001$.

There was a significant difference accordingly to gender; osteoporosis was reported in 23.35% of women and only in 3.88% of men; the difference was observed at each 5-year group with the highest prevalence among women aged 70–74 years (25.87%)

and 75–79 years old (25.52%), and among men at age70–74 years (5.7%) and 80–84 years old (5.71%). The significant difference in epidemiology of osteoporosis was observed among respondents from rural and urban area (10.81% in probates living in villages and 15.34% among those living in urban areas, $p < 0.0001$), and additionally, was observed also when analyzed accordingly to the number of inhabitants (15.51% in towns smaller than 50,000 inhabitants, 12.87% in places of 50,000–500,000 inhabitants and 17.31% in cities bigger than 500,000 of inhabitants; $p < 0.0001$). The diagnosis of osteoporosis varied significantly accordingly to educational level. The relation between prevalence of diagnosis of osteoporosis, educational level and gender were observed in the group of women.

Conclusions: The diagnosis of osteoporosis in Polish population was found to be uncommon. Osteoporosis was more frequently diagnosed in inhabitants of urban areas and in those better educated what might be related to the greater access to medical services and the greater awareness but that hypothesis requires further multifactorial analyses.

Short-term effect of low-intensity, pulsed, electromagnetic fields on gait characteristics in older adults: a pilot randomized-controlled trial

Poster Number: P16
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Introduction and objectives: To evaluate the short-term effects of a 10-minute exposition to low-intensity, pulsed, electromagnetic fields (PEFs) on gait characteristics in older adults who had experienced a fall or episodes of fear of falling.

Material and methods: In a double-blind, randomized-controlled trial, older adults aged ≥ 70 years were randomized to receive a 10-minute treatment with PEFs or placebo. The PEFs were administered through the contemporaneous use of (1) pulsed, non-coherent low-power light ("low-power laser"), (2) pulsed, non-coherent infrared low-power light, and (3) TENS, following a specific protocol of wave lengths and shapes (TEPS – Triple Energy Postural Stabilization). The TEPS instrument was provided by THS-Therapeutic Solutions Srl, Milan, Italy. At baseline and just after the intervention/placebo, the following gait parameters were assessed with the GAITRite Portable Walkway system: self-selected gait speed, stride length, support base, and double support phase.

Results: 41 patients were randomly allocated to intervention or placebo groups. In the intervention group both self-selected gait speed and stride length increased significantly from baseline, while double support phase decreased. In the placebo group all gait parameters except for support base remained unchanged. The mean percent increase (± standard deviation) of self-selected gait speed was significantly (P = 0.010) greater in the intervention group (20.1 ± 15.6) compared to the placebo (10.5 ± 13.1), while no significant difference in the mean percent variation of the other parameters was found between the two groups, but a trend. During the intervention no adverse event was observed. At a thirty days follow-up control two patients, one per group, reported a fall; all the treated patients reported an increased stability during the gait.

Conclusions: The evaluation of gait characteristics is considered as the most important predictive factor for the risk of fall; the results of this first randomized-controlled trial demonstrating a beneficial effects of PEFs on gait characteristics in older adults, encourage to perform further trials to better establish the potential benefits of PEFs on falls prevention in elderly patients.

Drug compliance and cognitive impairment in elderly

Poster Number: P17
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Background: There are several problems in pharmacotherapy in seniors – polypharmacotherapy, changes of pharmacokinetics and pharmacodynamics, drug interactions, unwanted side effects of drugs. Moreover cognitive impairment causes compliance changes, which are underevaluated frequently. The aim of our work was to compare the declared compliance of seniors with their results of cognitive testing as a chance to discover the risk of mistakes in pharmacotherapy.

Patients characteristics and methods: patients hospitalized at the Long term care department of Merciful Brothers Hospital Brno**,** alltogether 100 of patients with exclusion of patients with very bad prognosis or comorbidities conflicting communication undewent CGA examination and non standardized interview dealing with compliance self-image.

Results: 80 women and 20 men of average age 81.66 ± 6.88 years, range 70–98 years; cognitive performance evaluation showed 38% probands without cognitive

disturbance, 33% with MCI, 17% with light dementia and 12% with middle dementia. Average MMSE value in all group – 24,8 points. Depression evaluation – Sheikh-Yesavage scale found 52% of patients without depression, 32% with mild depression and 16% severely depressed. To evaluate the cognitive aspects of compliance we asked our patient how many drugs they used, names of these drugs and purpose of these drugs. The number of drugs knew exactly 38% of patients only, 16% only were able to tell names of drugs and 13% knew exactly purpose of all their drugs. In contrast to these results 53,5% of patients declared never to fail in drugs usage, 75,8% never forgot to ask their doctor to prescribe new package of drug and 68% of patients consider themselves to be the same as other seniors or better – 24% of patients.

Conclusions:
– behavioral and cognitive aspects of compliance were in contradiction in studied group, patients presented themselves more positively in comparison with reality;
– MMSE test was sensitive enough to discover the risk of non compliance;
– common contact with patient allows to evaluate the compliance inaccurately only – it means high risk of medication mistakes and following complications.

Antipsychotics Use in Our Nursing Home Patients: Quality Improvement Project

Poster Number: P18
Authors: Kusz H, Karedan T, Tismal D
Institutions: McLaren Internal Medicine Residency Program/MSU, United States

Introduction: Antipsychotic medications have been widely used as first-line agents, to treat dementia-related psychosis and behavioral problems. There are many regulatory policies and systems to monitor they safety, however, this requires collaborative effort of all health caregivers and only few of them provide desirable clinical outcome.

Methods: In our Internal Medicine Residency Training at McLaren-Flint, community-based, university-affiliated program, the second and the third year residents are assigned for longitudinal care of a panel of nursing home (LTC) patients. Current practices in the LTC facilities were we attend our patients are that geriatric psychiatry service is managing patients with dementia and behavioral problems. The pharmacy based intervention and multidisciplinary team regular clinical review are the main control systems for the appropriateness of antipsychotics use. We as physicians usually approve their recommendations and continue them, but ultimately we remain responsible for the whole management. Our quality improvement (QI) workshop suggested the need for some modification of our current practice. The overall goal is to increase our awareness

about potential overuse and misuse of antipsychotic medications by improving physicians' documentation. Our aim was that within 3 months of implementation, 75% of our LTC patients on antipsychotic medications will have documented in physicians' note indication for their use and a plan to monitor therapy, including dose reduction and treatment discontinuation.

Results: We obtained our Institutional Research Board and LTC administrators' approval. We presented the project to residents and faculty on our QI Forum. Starting November 1st 2011, we provided information regarding antipsychotics management for all residents who attended the nursing homes. Three months later review of physicians' documentation indicated that we had 65% of patients on antipsychotics for various diagnoses and only 30% of these patients had a definite plan of dose adjustment and/or discontinuation of therapy.

Conclusion: Continuous education of all health caregivers on treatment of dementia patients with behavioral problems is crucial. However, increasing physicians' responsibility for appropriate antipsychotic medications management is a standard which might significantly improve quality of patient's care. Advancing system-based practice may require several cycles of quality improvement process.

Tinnitus pharmacotherapy in the geriatric patient

Poster Number: P19

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Tinnitus, or ringing in the ears, belongs to frequent conditions with a prevalence of 8 to 15% in industrialized nations. Population-based studies in adult patients (aged between 48 and 92 years) have reported a prevalence of 8.2% at baseline, with further incidence of 5.7% over a five-year follow-up, and the prevalence generally rising with age. The underlying causes of tinnitus may vary, with each case being of different nature and intensity while also responding differently to the therapy instituted. Risk factors for the development of tinnitus include general cardiovascular risks, exposure to excessive noise, and hearing impairments in general. Essentially, tinnitus is either objective (most often secondary to a vascular anomaly) or subjective, the latter occurring more often; its etiopathogenesis is still poorly understood.

Age is associated with loss of hair cells of the hearing system resulting in reduced hearing ability, particularly at high frequencies (presbyacusis). The rate of

age-related hearing loss is most varied, with the condition occurring more often in men. Presbyacusis has been reported to be associated with a more frequent incidence of tinnitus. Tinnitus can be associated with other diseases resulting, for instance, in neurological damage such as multiple sclerosis or vestibular schwannoma. Other underlying causes of tinnitus include use of some drugs (salicylates, aminoglycoside antibiotics, and cytostatic agents).

Treatment is complicated and a number of therapeutic options have been developed including pharmacotherapy, tinnitus retraining therapy (TRT), non-invasive laser therapy, rehabilitation, and acupuncture.

There are several pharmacotherapeutic options for tinnitus treatment. The drug of choice are gingko biloba extracts (EGb 761) exerting vasoregulatory, rheological, and antiedema action, and a beneficial effect on intracellular metabolism in nervous tissue. Use of gingko-based drugs can be combined with other therapeutic modalities (e.g., laser therapy); gingko-based therapy should best be initiated at least 3 weeks prior to actual exposure to laser.

Another often used drug is betahistine belonging to histamine derivatives with vasodilator action, gaining wide acceptance particularly in the treatment of Meniere's disease with vertigo, hearing impairment with tinnitus, and as symptomatic therapy in vestibular vertigo.

Other modalities employed in the treatment of tinnitus include antivertigo agents, infused vasodilators, corticosteroids, calcium-channel blockers, tranquilizers, and antidepressants, nootropic agents and antiplatelets or, more rarely, glutamate receptor blockers. The frequency of use of the above agents varies among individual European countries and the US.

While a number of therapeutic strategies have been developed, they usually do not result in complete remission of complaints but, rather, only alleviate the problem.

Age and chronic wound healing

Poster Number: P20

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Background: Chronic wounds represent a serious problem in elderly patients. Older people often do not benefit from modern wound management.

Goal: Goal of our work was to determine whether older age predicts worse outcome in chronic wound healing when modern best care measures are applied.

Methods: We performed retrospective analysis of medical records of chronic wound patients treated on out-patient basis by the same physician at department

of geriatrics. All the patients were divided into three groups: group 1 (age less than 65), group 2 (age 65–75) and group 3 (age more than 75). We evaluated treatment success in all patient and in subgroup of patients with complete wound healing time and number of visits needed for wound resolution.

Results: From January 2006 to December 2009 we enrolled 94 chronic wound patients. Table 1 summarizes treatment success in all patients.

Table 1. Summarizes treatment success in all patient

	Succesfull healing ▲	Complete wound healing	Non-healing wound
Group 1 (n = 32)	29 (90%)	26 (81.3%)	3 (10%)
Group 2 (n = 31)	30 (97%)	27 (87.1%)	1 (3%)
Group 3 (n = 31)	28 (90%)	23 (74.2%)	3 (10%)
P	* 0.61 ** 0.61 *** 1.0	* 0.73 ** 0.33 *** 0.76	* 0.61 ** 0.61 *** 1.0

Comparison of * group 1 vs 2, ** group 2 vs 3, *** group 2 vs 3.
▲ Succesfull healing = complete wound healing + wound in overt regression.

Table 2. Summarizes time and number of visits needed for complete wound healing

Complete wound healing in:	Number of visits (percentile – number)	Time to complete healing (percentile – months)
Group 1 (n = 26)	25th – 6 50th – 7 75th – 10	25th – 2.5 50th – 3.5 75th – 5.5
Group 2 (n = 27)	25th – 6 50th – 9 75th – 13	25th – 2.5 50th – 3.5 75th – 5.5
Group 3 (n = 23)	25th – 6 50th – 8 75th – 10	25th – 2.5 50th – 3.5 75th – 5.5

Conclusions: Our retrospective analysis demonstrates clearly that chronic wounds were healed with the same success rate in all three patient groups – younger than 65, 65–75 years old, and 75 years and older. Time and number of visits needed to complete wound healing did not differ between the three age groups.

Cognitive Impairment in the Elderly Woman with Diabetes

Poster Number: P21
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Introduction: The role of vitamin B12 for brain and nervous system function is well known. Its deficiency associated with use of metformin has recently been brought to medical attention.

Patient's story: An 82 year-old female with multiple medical problems including long-standing type 2 diabetes mellitus presented stating her main concern "I have Alzheimer's". Over the past years she noticed memory and concentration problems, and was diagnosed with late-onset Alzheimer's disease. She lived at home, but required assistance in basic activities of daily living due to poor functional status. Her decision making capacity was impaired relative to medical and financial matters. On physical exam she was pleasant, cooperative, oriented to person, place and time. Although she answered questions correctly, her responses were slow. Neuropsychological evaluation revealed multiple errors when counting or performing tasks that required sustained attention.

Medication: levothyroxine, lanoxin, metformin, humolog, metoprolol, aldactone, furosemide, simvastatin, warfarin, and vitamin D. Laboratory data revealed HgA1C 8.0, INR 2.6, serum digoxin level 1.1 ng/ml and Vitamin B12 level 357 PG/ML. Hemogram, serum electrolytes, TSH, liver function tests and lipids profile were normal. A diagnosis of Vitamin B12 deficiency was made. Cognitive symptoms improved significantly after 6 months of parental B12 supplementation.
Discussion: Metformin, a first-line medication in diabetes treatment may block vitamin B12 absorption and older people are especially at risk. Clinical manifestations of vitamin B12 deficiency may include fatigue, memory loss, lack of concentration and neuropathy. Many laboratories report normal values of total serum vitamin B12 values ranging between 130–777 pg/ml. However, functional level of vitamin B12 is higher and values > 450 pg/ml should be considered as a cutoff. In borderline cases, B12 deficiency may be confirmed by checking homocysteine and methylmalonic acid levels.

Conclusion: Vitamin B12 deficiency is common in patients with diabetes, and may be aggravated by treatment with metformin. Since low B12 can cause cognitive impairment or permanent brain and nervous system damage, some authorities recommend annual screening and replacement of B12 in patients on metformin. Others recommend prophylactic supplementation of B12 for all patients who are prescribed metformin.

The Sensitivity and Specificity of the DRS-R-98 in Older Patients in General Hospital

Poster Number: P22

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Background: The Delirium Rating Scale-Revised-98 (DRS-R-98) is a tool to identify and measure the severity of delirium, but its sensitivity and specificity in older patients in general hospitals is uncertain.

Method: In a cohort study of older people with mental health problems admitted to general hospital where all had baseline DRS-R-98 scores, a sub-sample was independently assessed by a geriatrician or an old age psychiatrist to establish the presence or absence of delirium clinically according to Geriatric Mental State AGECAT (GMS A) criteria. Clinical diagnoses of delirium were compared to those made using a cut of score of 17/18 on the DRS-R-98, as recommended (Trzepacz et al. 2001).

Results: 93 participants were studied. Compared with clinician diagnosis of delirium, the DRS-R-98 had a sensitivity of 0.75 and a specificity of 0.71.

	Clinical evaluation by psychiatrist or geriatrician	
	Diagnosis of delirium	No diagnosis of delirium
DRS-R-98 score > 17.75	a) True positive 15	b) False positive 21
DRS-R-98 score < 17.75	c) False negative 5	d) True negative 52
Total	20	73

Conclusion: The discriminating value of the DRS-R-98 in this population was modest. This may be because of the difficulty of distinguishing delirium from dementia in this population.

Reference: Trzepacz PT, Mittal D, Torres R, Kanary K, Norton J, Jimerson N. Validation of the Delirium Rating Scale-Revised-98: Comparison With the Delirium Rating Scale and the Cognitive Test for Delirium. Journal of Neuropsychiatry and Clinical Neuroscience, 2001, 13(2), 229–242.

This poster presents independent research commissioned by the National Institute for Health Research (NIHR) under its Programme Grants for Applied Research funding scheme (RP-PG-0407-10147). The views expressed in this poster are those of the authors and not necessarily those of the NHS, the NIHR or the Department of Health.

Interviewing elderly patients with cognitive impairments about the quality of their hospital care using Talking Mats

Poster Number: P23
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Background: Elderly patients with cognitive impairments risk being excluded or discriminated against if they are not asked their opinions about hospital quality and care. It is sometimes assumed that such people cannot be reliably interviewed, but this may be due to failure to use interview techniques to aid communication. We report our findings of an interview study of such people, using the communication aid "Talking Mats", which makes use of picture symbols to enable communication (Murphy 2007).

Method: Twenty six patients who were confused at point of hospital admission were approached in hospital for interview about their experiences of being in hospital. Mini Mental State Examinations (MMSE) were conducted on all. Patients who were judged by the dementia-researcher to be cognitively able to answer reliably in a traditional interview did so. In the remainder, the interview was attempted using a Talking Mat.

Results:
N = 8/26 (31%) interviewed reliably conventionally (mean MMSE 19, range 14–24);
N = 7/26 (27%) not interviewed reliably conventionally, but reliably using Talking Mat (mean MMSE 9, range 1–18);
N = 11/26 (42%) not interviewed reliably either conventionally or using Talking Mat (mean MMSE 12, range 0–24).

Conclusion: Talking Mats appeared to increase the proportion of people with cognitive impairment who could be asked to give reliable opinions about their quality of care, compared to conventional interviews alone. If replicated, Talking Mats provide a means to reduce exclusion and discrimination and hence improve the quality of care for people with cognitive impairment.

Reference: Murphy J (2007). Using 'Talking Mats' to help people with dementia communicate. Joseph Rowntree Foundation. Available at: http://www.vhscotland.org.uk/library/vol/jrf_nov07_talking_mats_findings.pdf.

This abstract represents independent research commissioned by the National Institute for Health Research (NIHR) under its Programme Grants for Applied Research funding scheme (RP-PG-0407-10147). The views expressed in this poster are those of the authors and not necessarily those of the NHS, NIHR or the Department of Health.

Measuring ADL's in elderly in community and institutionalized: preliminary results over a six months period

Poster Number: P24
Authors: Pinheira V, Santos S, Pinto S
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Introduction: Population aging is a global phenomenon. It is a progressive and irreversible multifactorial process. It is strongly influenced by the environment, in particular, lifestyles and stages of disease. Functional capacity can be evaluated through the basic activities of daily living (BADL's) and instrumental activities of daily living (IADL's) which are essential to the autonomy of the elderly.
Objectives: Evaluate the losses in ability to perform ADLs in an elderly population, in different contexts housing for one year.

Methodology: Longitudinal and comparative study, performed with a sample of 57 subjects with 80.2 ± 7.9 years. Group 1 (n = 27) living in institutions and Group 2 (n = 30) in the community.
We use the Portuguese versions of the Katz Index to assess BADL's and Lawton and Brody's Scale for IADL's with assessments in three moments at 1st, 4th, and 7th months (T0, T1, and T2). Healht conditions and consumption were assessed. Statistical analysis was performed using the Wilcoxon and Mann-Whitney tests, and with tStudent test. We use 95% confidence interval.

Results: Presented results represent a preliminary stage of evaluation at the end of 6 months. At T0 no significant differences between groups in BADL's, but there are differences in IADL's, with the Group 2 (community) with high scores. Between T0 and T1 and between T1 and T2, both groups showed a statistically significant decline in BADL's. In IADL's although there is reduced capacity in both groups the results are only statistically significant for group 1 (institutionalized), over the six months.

Discussion: Both groups showed loss in ability to perform's BADL's, with statistical significance over time, however, the losses are more pronounced in Group 1, with significant differences. Comparing the groups, it appears that both increase the degree of dependence to perform's IADL's between each time point, however, losses are more evident in the institutionalized elderly.

Conclusion: The reduction in capacity to perform ADL seems to be more pronounced in elderly institutionalized.

Elderly community-dwelling evaluation: the OARS/QAFMI methodology

Poster Number: P25
Authors: Rodrigues R
Institutions: Nursing School of Coimbra – Portugal

Background: The elderly are subject to a multitude of health diagnosis where physical, mental and social aspects are closely linked, so multidimensional assessments are the most appropriate. The Older Americans Resources and Services methodology (OARS) was developed to evaluate the functional status in five areas: social resources, mental health, physical health and activities of daily living. It measures also the usage and need felt of 23 services. This instrument has been used in different studies: in the USA (Yin, 1980; Fillenbaum, 1988), Brazil (Blay et al, 1988), Italy (Liotta, 2002) and Singapore (Kua, 1991). It use is relevant for the knowledge of the functional disability, in physical and mental areas in old people.

Objective: The aim of this study is to analyse the applicability of the OARS (Questionário de Avaliação Funcional Multidimensional de Idosos – QAFMI – in the Portuguese version) in elderly community-dwelling.

Methods: Comparative, analysis of seven quantitative cross-sectional studies (Patiño, 1994; Nogueira, 2003; Rodrigues, 1999, 2007; Rodrigues et al, 2009; Silva, 2005, 2012). The samples in all studies were taken in a randomized and probabilistic trial, from the users' files of Health Centres and nursing homes. The data were presented by gender and age group (65–74; 75–84; ≥85).

Results: The evaluation tool showed its capabilities to collect a great volume of information. Its use should count, in the evaluation of functional areas, with the classification according to the score model of OARS/QAFMI. Only by this way we can compare, safely, results of evaluations and possible interventions. The diverse areas that are implied in the quality of life of the elders, and the diversity of technicians and services involved, suggest, as implications to the practice, a coordinated intervention.

Conclusions: All the work developed of OARS lead us to consider this instrument very useful to define the functional status of the elders in the specific evaluation areas and the needs, becoming right to the planning of older care services. Therefore, OARS is a measurement instrument of quality for older people providing significant information to interventions and improve adequate care strategy on this population group.

Constraints in the communication process between postmenopausal women and health professional

Poster Number: P26
Authors: Mendes I
Institutions: Escola Superior de Enfermagem de Coimbra, Portugal

Introduction: the postmenopausal period is an extremely complex stage in the life of women and their families, marked by intense bio psychosocial changes. The communication process is fundamental to establish a good interaction between professionals and clients, becoming, when properly established, a valuable tool to minimize the occurrences experienced in post-menopausal period, providing security for the women and their families.

Objective: this study aim to identify constraints of postmenopausal women in relation to the communication process established with the health professionals.

Methods: Descriptive and exploratory qualitative study. Informed consent was obtained in a group of former training "Senior University" of a public school.

Sample: Data were obtained with twelve participants through semi-structured interviews.

Results: The discourse analysis enounces three major categories: constraints on the reporting of symptoms of post-menopausal; constraints in the face of negative representations of post menopause and constraints of the physical and emotional fragility of post-menopausal.

Discussion/Conclusion: This study using a qualitative approach allows a deep understanding of the constraints, difficulties and needs of postmenopausal women related to the process of communication with health professionals. Particularly the lack of a bond between them that represents an important barrier for establishing their mutual communication, and generate implications to health interventions to improve it, specifically the need of improvement of an effective and responsive communication to women in postmenopausal, and support groups in the Health Centres as suggested by the participants.

Finally, we emphasize the negative connotations of women perceptions related to post-menopausal period. Therefore, health professionals, which are constantly interacting in the lives of these women, can help to demystify and reconstruct this process in the daily lives of these women.

Caregiver role strain

Poster Number: P27
Authors: Kozakova R, Zelenikova R, Jarosova D
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Introduction: In recent years, significantly increasing the proportion of family caregivers to care for their loved one and also their responsibility. It contributes to the aging population, a higher proportion of people impaired self-sufficiency, shortening hospital stay and an increasing number of outpatient procedures performed. Caring for a family member is demanding both physically and mentally and usually affects the family, work and social life caring.

Aim: The main aim of the study was to assess caregiver burden in a selected sample of non-professional caregivers operating in a home environment.

Methods: The Caregiver Burden Interview was used to assess the burden borne by caregivers. The research was conducted between July 2011 and December 2011. The sample consisted of 380 caregivers from the Czech Republic.

Results: According to the responses to the Caregiver Burden Interview, of the 380 caregivers, 185 (49%) bore a moderate to severe burden, and 40 (10%) bore a severe burden. The highest mean scores recorded for individual items were for the patient's dependence on the caregiver; caregivers' fears of what the future held for patients; and total strain of caregiving. The lowest mean scores recorded for individual items were for negative emotions accompanying caregiving; financial situation and uncertainty as to how to deliver proper care.

Conclusion: More than half of the caregivers sampled reported moderate to severe caregiver burden or severe burden. The appropriate interventions can strengthen the caregiver as he/she performs his/her role.

Staff confidence, morale and attitudes in a specialist unit for general hospital patients with dementia and delirium – a qualitative study

Poster Number: P28

Authors: Spencer K, Gladman J
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Background: Half of older people in general hospitals have cognitive impairment (delirium and/or dementia). Their outcomes are poor, their quality of care often criticised and staff feel undertrained and lack confidence to care for them. At Nottingham University Hospital, UK a specialist Medical and Mental Health Unit (MMHU) was developed. Staffing and skill mix was improved, staff training given and the environment modified. The MMHU is being evaluated by randomised controlled trial (NIHR TEAM trial). The aim of this qualitative study was to explore the perceptions of MMHU staff regarding the care for people with cognitive impairment.

Method: 22 Semi-structured interviews of ward based staff (including doctors, acute care and mental health nurses, occupational therapists, auxiliary staff and activity co-ordinators). The interview explored: education and training, job satisfaction, care of patients with dementia, team working, communication with carers, and organisational barriers to change in practice and culture. Analysis of the data followed a grounded theory approach and used NVivo 9 software.

Findings: The main themes were: confidence in competence, multi-disciplinary support, increased knowledge and dementia awareness, move towards a patient-centred acute model of care, improved coping strategies and staff communication, a positive change in attitudes towards patients. Themes indicating further possible improvements to the patient and relatives' experience of care related to: staff-carer communication; staffing levels and resources; risk of falls; and organisational barriers to change in practice.

Conclusion: The participants in this study felt that they were providing better care to cognitively impaired patients. All staff acknowledged that their 'confidence in competence' in dealing with this patient group had increased. Although many considered that further improvements could be made in delivering a patient and carer centred model of care.

The usefullness of method of canonical analysis to assess the relationships between groups of variables in the study of people over 65 year old

Poster Number: P29
Authors: Babiarczyk B, Schlegel-Zawadzka M
Institutions: Faculty of Health Science, University of Bielsko-Biala, Poland

One of the significant factors influencing both the Polish and the global health situation is the process of demograhic and epidemiological transition of societies. The research was conducted between November 2008 and July 2010. The institutions selected for the study included one hospital and five care institutions located within Bielsko-Biala. The study involved people who were at least 65 year old on the day of the examination. The bioethical agreement was achieved.

Of all the 202 variables created in line with the work the three main sets of variables, which are named respectively were stated:

I set – variables which characterize the social situation of the study group;
II set – variables characterizing the health and functional efficiency;
III set – variables which characterize the nutritional status, and the three subsets:

a) IIIa variables characterizing the selected features MNA ® and test SCALES,
b) IIIb variables characterizing selected anthropometric characteristics of respondents,
c) IIIc variables characterizing the biochemical tests of blood.

We can conclude that the greatest percentage of variation from one set of variables, with the knowledge of the variables from the second set can be explained in a model created from subsets of IIIb and IIIc (18.3%) and a set of subset II and IIIa (15.3%).

Improving doctors knowledge about Herbal Medicines; does education have an impact?

Poster Number: P30
Authors: Buttice M, Rawles J, Lisk C
Institutions: Barnet Hospital, Wellhouse Lane, London, U.K.

Introduction: Older people are taking Herbal Medicines to treat chronic disease, memory impairment, prevent illness and aid longevity. These Medicines may cause harm through untoward side effects or indirectly through interaction with conventional medicines. Previous work has highlighted that doctors knowledge

about herbal medicines is poor and the ISOS MORI report of 2009 highlighted doctors as the most common source that patients would turn to for information about the risk and benefit of herbal medicines.

Method: A web-based survey of doctors working within the Department of General Internal Medicine and Geriatric Medicine at a District General hospital was carried out looking at doctors knowledge about herbal medicines following a specific teaching intervention in the form of a Medical Grand round on Herbal Medicines.

Results: 43% (16) of doctors who attended the Medical Grand round took part. The majority of respondents were Acute Physicians and Geriatricians. The majority of respondents 88% (14) still do not routinely ask patients about Herbal Medicine use. The commonest reason for not asking was still "don't remember to ask" in 75% (12) whilst only 1 doctor cited lack of knowledge as a reason for not asking about its use. This is compared to 30% of doctors pre-intervention survey who cited lack of knowledge as a reason. The commonest Herbal medicines that doctors had come across were similar; Gingko Biloba, Garlic and Ginseng. 75% (12) of doctors were aware that Gingko improved memory compared to 58% (30) in the pre-intervention survey whilst 94% (15) were now aware that St Johns Wort can cause transplant rejection in patients on Cyclosporin. More doctors recognized the potential drug interactions between Garlic and Warfarin 81% (13) and that between Gingko biloba and clopidogrel 81% (13) compared to pre-intervention when only a third of doctors recognized these interactions which can impact adversely on patient safety. 69% (11) and 75% (12) doctors recognised that Garlic and Gingko had antiplatelet activity compared to a quarter of doctors previously. However the majority of doctors rated their knowledge as poor 62% (10). As in the pre-intervention survey no doctors rated their knowledge as very good or excellent.

Conclusion: Our findings suggest that despite teaching on Herbal Medicines, doctors feel that their knowledge is poor. However it is clear from individual survey questions that knowledge about common Herbal Medicines has improved. It is therefore necessary to ensure that Geriatric Medicine programmes provide education about herbal medicines to ensure that patients are not put at risk due to doctors lack of knowledge.

End-of-life Care for the Elderly: Physicians' Self-Confidence and Concerns

Poster Number: P31

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Population is aging globally. Nizhny Novgorod is one of the ancient and largest cities in Russia. The population of the city is about 1,070,000. It was Nizhny Novgorod where the first Center of Gerontology in Russia was found in 1989 and Geriatrics Service has been established. The position of geriatrician was included to the list of medical specialities. In the region the rate of men over 60 and women over 55 years old has reached 29.9% in 2012. According to official regional statistics among all deaths 57.6% adults and 66.8% of people at the age of 65 and over died at home in 2010. Among all deaths at home overworking-age people comprise 89.98%. Besides 87.0% of all adult cancer deaths occur at home and the majority of people, when asked where they would like to die, state that they would prefer to end their days in their own home. That is why palliative care and end-of-life care for the elderly today is a challenge.

We conducted a study with the aim to assess district doctors' self-confidence in performance of 17 different end-of-life clinical skills and comfort with difficult end-of-life clinical decisions (e.g. treatment and hydration withdrawing, shifting in treatment approach from curative to comfort care) and also their interest in learning about end-of-life clinical and ethical topics. We translated into Russian and used a tool "A Survey Instrument to Measure Physician Self-Confidence and Concerns about End-Of-Life Clinical Skills and Decision-Making" designed by David E. Weissman and Bruce Ambuel (Waukesha Family Medicine Program; Medical College of Wisconsin). 425 physicians were involved in the survey who are responsible for providing community medical care for the elderly. The results of our study showed that most of district doctors were competent to perform patient management at the end of life only with close (50.0%) and minimal (32.0%) supervision/coaching. All respondents had difficulties while responding to the questions regarding decision-making at the end of life. Almost all respondents (98.0%) noted that such issues, as symptom control, communication and decision-making at the end of life should be included in the Medical Universities Graduate and Postgraduate Curriculums and in training of geriatricians and family doctors.

Conclusion: district doctors who provide car for the elderly were not enough competent to perform patient management at the end of life. Although education in palliative care has made clear progress within the country it is still to be incorporated fully into the fabric of medical education and particularly in the education and training of geriatricians and family doctors.

Authors' Index

Prague Medical REPORT

(Sborník lékařský)

Published by the First Faculty of Medicine, Charles University in Prague,
Karolinum Press, Ovocný trh 3, 116 36 Praha 1 – Staré Město, Czech Republic.
Vice-Rector-Editor: Prof. PhDr. Ivan Jakubec, PhD.

Editorial office: Prague Medical Report, Kateřinská 32, 121 08 Prague 2, Czech Republic,
Phone: +420 224 964 570, Fax: +420 224 964 574,
e-mail: medical.report@lf1.cuni.cz

Published as quarterly journal. Typeset and printed by Karolinum Press,
Pacovská 350/4, 140 00 Prague 4.
Annual subscription (4 issues) EUR 60,–. Single copy EUR 30,–. Subscription information:
Mediaservis s.r.o. For ČR – Zákaznické centrum, Vídeňská 995/63, 639 63 Brno,
or P.O.Box 63, 639 63 Brno, phone for receipt of orders and changes +420 541 233 232,
fax +420 541 616 160, e-mail: predplatne@mediaservis.cz, phone for claims +420 800 800
890, fax +420 541 616 160. Abroad – Mediaservis s.r.o., administrace vývozu tisku,
Paceřická 2773/1, 193 00 Praha 9, phone +420 271 199 250, fax +420 271 199 902

ISSN 1214-6994

Reg. No. MK ČR E 796