

within the target group, 15-18 year- old high school students (n=171). Data collection took place in Kaposvár in the autumn of 2014. The self-reported questionnaire contained elements taken over from standard ones. Adolescents had to choose the characteristic of their parents from different ways of parenting styles based on Baumrind's work. SPSS v 13, descriptive statistics, χ^2 -test and Fisher's Exact test were used for data evaluation. **RESULTS:** There was a significant correlation between the evaluation of the atmosphere at home ($p < 0,01$), belief in the sense of life (mother: $p=0,003$; father: $p=0,002$) and the way of parenting. The paternal style correlated with the satisfaction with life among the adolescents ($p=0,006$) and with the burn-out in education ($p=0,005$). The mother's attitude had an effect on the conflict management ($p=0,036$) and the level of depression ($p=0,013$). Children with consistent and/or permissive parents perceived a better family atmosphere, had higher satisfaction with life and better belief in the sense of life, had a lower level of depression and burn-out in education, and they were more likely to seek compromise. While the authoritarian parents' children were rather rival, neglectful parents' children were more conflict avoiding than their contemporaries. **CONCLUSIONS:** Consistent and permissives parents' children showed a better image of themselves. The health visitor involved in the intimate sphere of the family is able to get direct information about the way of parenting. With the help of education, she shapes the mental health and health protective behavior of the adolescents within the school's health educational program.

PIH49

THE IMPORTANCE OF THE COMMUNICATOR FOR AN INTEGRATED CARE PROGRAM - A COMPARATIVE PREFERENCE ANALYSIS WITH DISCRETE CHOICE EXPERIMENTS

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OBJECTIVES: Integrated Care (IC) aims to optimize the processes of healthcare delivery. Until now IC programs are not implemented all-encompassing. This could be due for example to the lack of awareness of IC programs, lack of acceptance or the missing incentives as well as the lack of consideration of patient or insuree preferences. The study analyzes the relationships between different communicators (GP/health insurance/state) of IC programs and information recipients (patient/insurant/public). Specifically, if the communicator of an integrated care program has an impact on the hypothetical choice of the respondents. **METHODS:** The study used a generic and labeled Discrete-Choice Experiment (DCE). In addition, a control group was enclosed in the empirical study in which the communicator was not included within the decision model. All DCEs used an identical decision model with the six characteristics. Bayesian designs (NGene) were used including 9 or 12 choicetypes. **RESULTS:** N=1632 participants (53.8% female, mean age 45.9 years) took part in the representative survey. The conditional-logit and random-parameter estimation showed that the communicator had significant impact in both DCEs. The most important attributes (considering CI 95%) were "medical devices and furnishing", the "communicator" and the "travel time". The second most preferred items were "additional costs" and the "experience of care provider." The "waiting time for an appointment" and the "exchange of clinical information" are the least considered attributes. The physician thereby increased the probability of the selection of an IC-program. **CONCLUSIONS:** The DCEs could show that apart from the relevant properties of an IC-program the communicators also have a significant impact on the hypothetical choices of respondents. This is the first study so far, which demonstrates this effect. The results obtained can be used in the context of health services research, to check the direction of the communication and information strategy for integrated care and possibly realignment.

PIH50

EXPERIENCED VS. HYPOTHETICAL HEALTH STATES PREFERENCES USING EQ-5D 3L AND 5L VERSIONS: A NATIONAL STUDY

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OBJECTIVES: The Irish EQ-5D-3L valuation study recently concluded, incorporating a number of innovative modifications. These included asking respondents to use the time trade off (TTO) method to evaluate their own health status. Further questions related to the 5L method, including TTO valuations of hypothetical 5L health states. **METHODS:** Respondents were asked to value their own health state at the time of interview using both 3L and 5L approaches, allowing experienced health state preferences to be estimated for both versions. These results were then compared against hypothetical states under consideration, both by the same respondents and against population averages. Based upon previous crosswalk studies and previous research on EQ-5D-3L status in Ireland, the most common 5L health states in Ireland were estimated using a simulation model. The 10 most common mild, moderate and severe health states (using Manhattan distance) were chosen and valued using Visual Analogue Scale (VAS) and TTO approaches. **RESULTS:** Approximately 1/3 of the 520 respondents did not report full health (though only a small number had by chance previously valued this state "hypothetically"). Health states from those who had experienced them received higher utilities compared against equivalent, hypothetical valuations by respondents who had to imagine the quality of life with this set of conditions. Moderate and extreme problems with "Usual Activities" were associated with the most significant results. Some health states were not calculable due to the absence of data (especially for 5L states). Furthermore, a population-specific crosswalk algorithm could be estimated using hypothetical 5L scores. **CONCLUSIONS:** The valuation of experienced states has arisen as a topic of interest when considering society's preferences for health. This research while considering Irish societal preferences may provide a bridge between what society is theoretically identifying and what it then chooses.

PIH51

RESEARCH AND EVALUATION OF THE SELF-TREATMENT PROCESS WITH THE NON-STEROIDAL ANTI-INFLAMMATORY DRUGS IN THE REPUBLIC OF ARMENIA

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OBJECTIVES: Self-treatment process is spread worldwide which may result in a number of side effects. The cause of the self-treatment process with the non-steroidal anti-inflammatory drugs being widely spread is the diversity of their instructions. There is no research in the Republic of Armenia (RA) evaluating the self-treatment process with the non-steroidal anti-inflammatory drugs. **METHODS:** For the evaluation of the latter, the research carried out by us was performed in population. **RESULTS:** 78% out of 1310 respondents were women and 22% were men. 61% of the respondents have confessed that they take non-steroidal anti-inflammatory drugs while 36% have said that they do not take and only 3% could not remember whether they do that or not. 85% of the respondents have not been aware of the side effects of the non-steroidal anti-inflammatory drugs. To the question "Who recommends you to take the non-steroidal anti-inflammatory drugs" indicated in the questionnaire 45% have responded that they follow their acquaintances' advice, 34% have done it by the instruction of a doctor and 11% have used such sources as internet, books, advertisements, 10% have followed the advice of the pharmacy employees. By the way 56% of constant users of the non-steroidal anti-inflammatory drugs have taken them by the instruction of a doctor, 16% have followed the instructions of the pharmacy employees and 28% have followed their acquaintances' advice ($p < 0.05$). **CONCLUSIONS:** Hence, evaluating the self-treatment process with the non-steroidal anti-inflammatory drugs in the RA we suggest ensuring proper control over the pharmacies delivering drugs by prescription. There is a need to start the implementation of the concept of the rational use of drugs and in particular the non-steroidal anti-inflammatory drugs in the RA. Moreover, drug database containing information on their usage instructions, side effects, and order of delivery from the pharmacy should be created and made public property.

PIH52

ASSESSMENT OF EFFECTIVE INCENTIVES FOR BLOOD DONATIONS. HOW CAN CITIZENS BE MOTIVATED TO DONATE BLOOD?

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OBJECTIVES: Demographic trends affect size and age structure of populations. Consequences will be the growth of old age groups and an increasing need of blood products for age-related diseases and treatments. This leads to the question about how to increase donation rates and how to ensure a steady supply. Only small shares of eligible populations donate on a regular basis. Donation services rely on voluntary, non-remunerated donations and thus on charitable motivation. It might be questioned whether voluntary donation will be able to guarantee sufficient future blood supply. Study aim was to find out whether a willingness to accept incentives exists and to contribute to the discussion on how to increase donation rates. **METHODS:** A discrete choice experiment embedded in a self-administered online questionnaire was applied. Respondents were repeatedly asked to choose between two hypothetical blood donation center differing in characteristics. In case of reluctance to receiving incentives a none-option was given to opt out. Random parameter logit and latent class models were used for estimation and analysis of heterogeneous preferences. **RESULTS:** Study sample included 416 US and German college students. Results showed that choice decisions were significantly influenced by characteristics in the experiment. Respondents were more likely to choose one of the presented donation center. Incentives most preferred were monetary compensation (Coef. US/ Ger: 0.75/0.52), paid leave (0.68/0.62) and blood screening test (0.43/0.60). Short travel time to donation center (0.85/0.65) was also appealing for respondents. Latent class model identified subgroups with preference heterogeneity in samples. Small subgroups (US: N=38, Ger: N=33) indicated moderate to strong aversion to incentives. **CONCLUSIONS:** The larger part of the study sample positively responded to incentives and indicated a willingness to accept incentives for blood donation. In face of future challenges the judicious use and appropriately utilization of incentives might be an option to motivate potential donors and should be open to discussion.

PIH53

INVESTIGATION OF THE LIVING AND ITS IMPACT TO THE PREGNANTS

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OBJECTIVES: Our aims is to examine relationship between education and health-conscious lifestyle among pregnant. Further object of our study was to explore effect of smoking to values of red blood cells and hemoglobin, and that anxiety and depression occurs more often in case of primiparae or multiparae during pregnancy. We were looking for correlation between anxiety and delivery time. **METHODS:** 82 pregnant were selected with a non-randomized expert sampling in Markusovszky University Teaching Hospital Care in Pregnancy and Obstetrics Department. The investigation performed between 01/06/2014 and 30/11/2014. Inclusion criteria: 18 - 45 years old pregnant in 2nd trimester. Data collected with compiled for the study and standard questionnaires (Lifestyle, Beck depression, Spielberg anxiety) supplemented by documentary analysis. Descriptive statistics, Chi-square tests and t-test was used in Microsoft Excel. Results were shown average and frequency reliability range. Results were considered significant at $p < 0.05$. **RESULTS:** Higher education pregnant are more health-conscious ($p < 0.001$). In 2nd trimester were no significant differences between smoking and non-smoking pregnant's hemoglobin ($p = 0.355$), and RBC values ($p = 0.887$). In 3rd trimester lower hemoglobin ($p < 0.001$) and RBC ($p < 0.001$) values were found among smokers. In 2nd trimester anxiety level was significant in case of multiparae ($p = 0.011$). In 3rd trimester were not differences in case of anxiety ($p = 0.160$) and depression ($p = 0.096$) between the primiparae and multiparae. For pregnant women who anxiety was detected, it

was more common for premature delivery ($p < 0.001$). **CONCLUSIONS:** Based on the results it can be said that in the study population the education of pregnant women was influence to their health-conscious. Among pregnant women who smoked less hemoglobin and red blood cell values were experienced which have indirect harmful effects to fetus. Anxiety was observed at primiparae, and they were more common in premature birth.

PIH54

PATIENTS' AND HEALTH PROFESSIONALS' PREFERENCES REGARDING INTRAVENOUS VS SUBCUTANEOUS DRUG ADMINISTRATION: A LITERATURE REVIEW

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OBJECTIVES: Measurement of preferences gives a quantitative understanding of the value that a person places on a medication or a health intervention. The aim was to review the evidence regarding patients' and health professionals' preferences towards IV and SC drug administration. **METHODS:** A literature review was conducted through PUBMED, Google Scholar and ISPOR DATABASE. A hand search was also performed in retrieved papers that were included in the final analysis to identify additional relevant papers. Search terms used were 'preference' AND 'IV vs. SC' OR 'IV versus SC' OR 'intravenous vs. subcutaneous' OR 'intravenous versus subcutaneous'. Studies should be written in English, published after 2000 and participants should be adults. Reviews, studies comparing IV and/or SC over other routes of drug administration and not evaluating preferences, were excluded from the study. **RESULTS:** 424 papers were retrieved and 8 were identified through hand search. Finally, 20 studies met the inclusion criteria. The majority focused on patients' preferences and only 5 studies measured health professionals' preferences. Very few studies used stated-preferences techniques. In 4/5 studies health professionals stated that they prefer SC administration. No study gave the reasons for this preference. In general, patients preferred SC over IV administration. The main reasons for that were time, convenience and location. Patients' age seemed to be also important in shaping preferences. **CONCLUSIONS:** In the majority of studies patients and physicians prefer SC vs. IV as the route of administration. Patients' education in SC drug administration will increase their confidence regarding self-injections and the use of SC drug administration. The role of physicians and nurses is crucial towards this target. There is a need to identify the specific attributes that define health professionals' preferences regarding the route of administration and to develop validated tools to elicit preferences that do not require high degree of expertise.

PIH55

THERAPEUTIC REFERENCE PRICING SYSTEM IN SLOVENIA FROM THE PATIENTS' PERSPECTIVE

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OBJECTIVES: The therapeutic reference pricing system in Slovenia was implemented for proton pump inhibitors in 2013 and for angiotensin-converting enzyme inhibitors and lipid-lowering medicines in 2014. The study aimed to assess patients' knowledge and attitude towards the therapeutic reference pricing system. **METHODS:** A representative sample of 676 patients that had been prescribed at least one medicine from the three therapeutic classes was surveyed. The survey was carried out from 15th May to 15th June 2014 in 40 community pharmacies with the help of the pharmacists, who filled in the first part of the questionnaire in the presence of the patients. The second part of the questionnaire was filled in by 475 patients at home and returned by prepaid mail. **RESULTS:** Statements describing the patient' rights and duties within the therapeutic reference pricing (TRP) system were only known by approx. 50% of the patients or fewer in most of the cases presented to them. Of particular concern are elderly, patients with worse health condition, and low-income patients that expressed poorer knowledge about the TRP system. The patients had an inhomogeneous view of the necessity and benefits of the TRP system, including its potential for cost containment. Most of them regarded the TRP system as an unnecessary burden, which could even reduce confidence in the Slovenian health care system. Among the 50.4% that were required to co-pay due to the TRP system, 46.7% actually co-paid for their medicine, while 3.7% of the patients rejected co-payment. On average, the co-payment was 6.92 EUR per 3 months of therapy, while the average willingness to pay expressed in the study was 10.4 EUR for three months of treatment. **CONCLUSIONS:** The results of the present study indicate that the implementation of the TRP system and potential upgrades in the future represent a significant challenge for patients.

PIH56

THE OXFORD PARTICIPATION & ACTIVITIES QUESTIONNAIRE (OX-PAQ): PSYCHOMETRIC ANALYSIS

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OBJECTIVES: There is growing interest in the management of long term conditions and keeping people active and participating in the community. Testing the effectiveness of interventions which aim to impact upon activities and participation, however, can be challenging without the availability of a well-developed, valid and reliable instrument. The objective of this study was to develop and validate a fully FDA compliant patient reported outcome measure, the Oxford Participation and Activities Questionnaire (Ox-PAQ), theoretically grounded in the World Health Organisation International Classification of Functioning, Disability and Health (ICF). **METHODS:** Questionnaire items generated from patient interviews and based on the nine chapters of the ICF were administered by postal survey to 386 people with three neurological conditions; Parkinson's disease, amyotrophic lateral sclerosis, and multiple sclerosis. Participants also completed the MOS 36-Item Short Form Survey (SF-36) and EQ-5D 5L. **RESULTS:** 334 participants completed the survey, a response rate of 86.5%. Factor analytic techniques identified 3 domains, consisting of

23 items, accounting for 72.8% of variance. Internal reliability for the 3 domains was high (Cronbach's α .84-.96), as was test-retest reliability (intra-class correlation .81-.96). Concurrent validity was demonstrated through highly significant relationships with relevant domains of the SF-36 and the EQ-5D-5L. **CONCLUSIONS:** Preliminary results suggest that the Ox-PAQ is a short, valid and reliable measure of participation and activity. The measure will now be validated in a range of further conditions and additional properties, such as sensitivity to change and predictive validity, will also be assessed in the next phase of the instrument's development.

PIH57

PATIENT-REPORTED OUTCOMES IN STUDIES PUBLISHED IN 2014: WHICH DISEASE AREAS HAVE BEEN THE MAIN FOCUS OF CLINICAL RESEARCH?

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OBJECTIVES: To determine the disease focus of all papers indexed in the PubMed database that included patient-reported outcomes and were published in 2014. **METHODS:** An evidence surveillance process was established based on a systematic search of PubMed, using key words relevant to the assessment of quality of life and patient-reported outcomes and limited to studies published in English, in humans, with abstracts, and either clinical trials, observational or validation studies or systematic reviews. The surveillance incorporated all studies published from 2010 and was updated weekly. Abstracts identified by the search that included patient-reported outcomes were indexed according to disease area, using the chapter categorisation from ICD-10 as a framework. Articles were included if they reported results or a study protocol from a primary research study or were a systematic review. To account for the delay in indexing of publications, we included all studies with a publication date of 2014 that were indexed in PubMed up to 18 May 2015. **RESULTS:** The search identified 1,980 articles published in 2014, 1713 of which met the inclusion criteria. Of these, 19% were conducted in patients with cancer, 12% in musculoskeletal disorders, 10% in respiratory disorders, 9% in urogenital disorders, 9% in mental health disorders, 8% in cardiovascular diseases, 7% in gastrointestinal disorders and 5% in neurological disorders. All other disease areas were relatively underrepresented, accounting for 4% or fewer of the relevant publications. **CONCLUSIONS:** The preponderance of patient-reported outcome studies in patients with cancer reflects the focus of pharmacological research on this topic. Disease areas such as endocrinology and diabetes (4% of abstracts), infectious diseases (2%), acute trauma (1%) and pregnancy (<1%) have been relatively under-researched for their impact on quality of life, despite their substantial impact on morbidity and mortality internationally.

PIH58

THE CONCEPTUAL FRAMEWORK AND CONTENT VALIDITY OF THE POLYCYSTIC OVARY SYNDROME PATIENT REPORTED OUTCOME (PCOS-PRO) SCALE

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OBJECTIVES: A comprehensive disease model of PCOS demonstrated that polycystic ovary syndrome (PCOS) presents with a broad range of symptoms and has significant impacts on patients' lives. There are no patient-reported outcome (PRO) instruments that are well-defined, comprehensive in coverage and reliable for capturing symptoms and impacts in women who experience PCOS. The PCOS-PRO was therefore developed following the principles outlined in the 2009 FDA PRO Guidance. **METHODS:** The following steps were undertaken: (1) a targeted review of the literature, interviews with clinical experts, and concept elicitation interviews with PCOS patients were conducted to inform a comprehensive disease model of the signs/symptoms and impacts most important to women with PCOS; (2) a conceptual framework for the PCOS-PRO was designed to reflect the concepts to be measured and their anticipated relationships; (3) items were drafted, using patient language derived from the interviews; (4) cognitive interviews were conducted with patients to evaluate patient comprehension; (5) the conceptual framework was revised and the PCOS-PRO finalized. **RESULTS:** The final PCOS-PRO has 39 items measuring menstruation symptoms, the daily symptoms of PCOS (pain, cramping, bloating, hirsutism, acne, darkened skin, alopecia), and the daily impacts of PCOS (activities of daily living, rest, physical limitations, exercise, emotional health, engagement in coping behaviours). Most items are evaluated on 11-point numeric rating scales (NRS) anchored with "no [symptom/impact]" and "[symptom/impact] as bad as I can imagine", or "not difficult" and "extremely difficult". The PCOS-PRO has been developed on an e-diary with a 24 hour recall period for daily use. **CONCLUSIONS:** Establishing content validity involves ensuring that instrument items assess concepts that are relevant for the patient population, cover all important aspects of the targeted concepts, and are understood by patients. The results of this research support the content validity of the PCOS-PRO. Other measurement properties are pending evaluation.

PIH59

WHERE IS YOUR ABDOMEN? PATIENT-REPORTED ABDOMEN LOCATIONS AND IMPLICATIONS FOR PATIENT-REPORTED OUTCOME ASSESSMENTS

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OBJECTIVES: This research aims to provide clarity regarding the location of the abdomen from the patient perspective, and the implications that this has for establishing content valid PRO measures of symptoms experienced in the anatomical region. **METHODS:** The dataset included 419 adult participants with either chronic obstructive pulmonary disease, depression, osteoarthritis, or type II diabetes. Participants were asked to circle the abdomen on a diagram of a body. A grid of 13 regions, nine of which were used to define the abdomen, was used to analyze which region(s) was identified as the abdomen. **RESULTS:** The average age of the participants was 55.3 years and they were predominantly female (52.0%) and black (48.0%). Only 20.0% achieved a college or advanced degree. 411 participants (98.1%) circled at least one part of the abdomen; only 8 participants (1.9%) circled something exclusively