

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