OBJECTIVES: We aimed to (1) describe the real-world treatment of UTIs in a T2DM population, (2) investigate UTI related healthcare resource use, (3) assess treatment differences associated with biologic (B) and (4) identify factors associated with UTI-related treatment costs. METHODS: We analysed an anonymized dataset from a regional German healthcare fund (AOK PLUS) including all continuously insured T2DM patients from 01.07.2012-30.06.2013. Health care resource use was reported per UTI episode. A UTI episode was identified through coded outpatient/inpatient UTI diagnoses (ICD-10 N39.0) and, in case of recurrent diagnoses, prescribed antibiotics for UTI treatment. RESULTS: A total of 456,586 T2DM patients (mean age of 73.8 years, 56.3% female, mean observational period of 10.4 days) were included. We identified 48,337 UTI episodes. During an observed UTI episode, patients visited with a median/mean of 1.0/0.8 times a GP and 0.0/0.3 times an urologist (21% of the cohort was treated by an urologist). Direct medical costs were 315.90/102.28€ per UTI episode. Factors significantly increasing UTI-related direct bottom costs were age, female gender, worse CKD status (5/5), CCI, and at least one previous UTI infection in the reference period. In an additional top-down bootstrap analysis all-cause cost per patient year were 5,519 ± 4,122€ for T2DM patients compared to T2DM patients not having experienced an UTI. This translated into a UTI-related marginal cost-increasing effect of 3,916€ per patient year in a multivariable Gamma regression analysis. CONCLUSIONS: Given the worldwide increasing prevalence of T2DM, the incidence of UTI infection in T2DM represents substantial resource use/cost burden for healthcare systems.

PUC32 AUTOSOMAL POLYCYSTIC KIDNEY DISEASE (ADPKD): COSTS AND RESOURCE UTILISATION IN THE NORTHERN COUNTRIES

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OBJECTIVES: There is limited real-world information on resource utilisation, costs and productivity in patients with ADPKD. The objective of this study was to estimate the annual direct and indirect costs of patients with ADPKD by severity of the disease (chronic kidney disease (CKD) stages 1–3, 4–5, dialysis, and transplant recipients), and describe the resource utilisation during the 12-month period around dialysis initiation and transplantation. Method: A prospective national study of ADPKD patients was undertaken April–December 2014 in Denmark, Finland, Norway, and Sweden. Data on medical resource utilisation were extracted from medical charts and patients were asked to complete a self-administered survey, which included the Work Productivity and Activity Impairment Questionnaire. RESULTS: A total of 266 patients were contacted, 243 (91%) of whom provided consent to participate in the study. Average annual total costs amounted to €9,919 in CKD 1–3, €16,751 in CKD 4–5, €74,015 in dialysis patients and €31,496 in transplant recipients. Indirect costs were substantial in earlier stages of the disease, accounting for 72% and 73% of total costs in the CKD 1–3 and CKD 4–5 strata, respectively. Direct medical costs amounted to €11,773 in CKD 4–5 and €2,514 in dialysis patients. Among those who were employed, the overall work productivity loss ranged between 9% in CKD stage 1–3 to 42% in dialysis patients. An average of 16.5 hospital days and 10.4 outpatient visits were observed in the 10-month period around dialysis initiation. Around the transplant procedure, the average number of hospital days and outpatient visits were 29.9 and 16.9, respectively. CONCLUSIONS: ADPKD is a progressive disease associated with increasing costs as the patient progresses to CKD stage 4–5, dialysis and transplantation. Indirect costs could be made by delaying the progression of ADPKD to end stage renal failure.

PUC33 HEALTHCARE RESOURCE CONSUMPTION AND COSTS BEFORE AND AFTER KIDNEY TRANSPLANTATION IN LOMBARDY, ITALY

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OBJECTIVES: Aim of the present study was to evaluate, through the analysis of administrative healthcare resource consumption and costs, the financial burden of kidney transplantation on the Italian public health system. We included all patients with end-stage renal disease who received kidney transplantation from 2010 to 2011 and calculated the average costs in charge to the Regional Health Service (RHS) for patients receiving kidney transplantation. METHODS: All data collected in the regional administrative databases regarding subjects resident in Lombardy (one of the Italian Regions, with about 7,000,000 inhabitants) who received kidney transplantation in 2011 were extracted. Direct healthcare costs in charge to the RHS for these subjects for the 12 months preceding and following transplantation were estimated (drugs, hospitalizations, diagnostic and therapeutic procedures). RESULTS: In 2011, 276 subjects received kidney transplantation, 268 of which survived for the following 12 months. Administrative data were available for 264 of these subjects (67.8% males, mean age 49.4). Among those who received kidney transplantation, the average yearly cost before transplantation amounted to 36,746€ (11.6% for drugs, 81.2% for diagnostic/therapeutic procedures and 7.2% for hospitalizations). Dialysis accounted for 91% of all costs for diagnostic/therapeutic procedures. In the year following transplantation, the per-patient mean cost increased to 43,800€ (51.5% for diagnostic/therapeutic procedures and 45.8% for hospitalizations). The average per-patient cost of transplantation intervention was 21,183€ (27.0% of total cost of hospitalizations). The average cost of the last year of life of those patients who died within 12 months after transplantation was 79,362€/patient (68.1% of which...
for hospitalizations). CONCLUSIONS: Kidney transplantation substantially changes the composition of costs associated to patients affected by end stage renal disease, dramatically reducing the costs of diagnostic/therapeutic procedures and increasing drug expenditure. When evaluating the increase in hospitalization costs, the incidence of transplantation expenditure should be considered. Speculatively, it should be expected that in the following years, the net annual cost difference would decrease thanks to savings following the reduction in dialysis costs.

Puko4 CROSS-SECTIONAL DESCRIPTIVE STUDY OF THE IMPACT OF ANAEMIA IN PATIENTS WITH CHRONIC KIDNEY DISEASE ON HEALTHCARE RESOURCE UTILISATION AND WORK PRODUCTIVITY ACROSS EUROPE Eriksson D1, Tetrián D2, Goldsmith D2, Jackson P1, van Noort FE2
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OBJECTIVES: To assess the magnitude of anaemia and its effects on dialysis and work productivity in patients with chronic kidney disease (CKD) stages 3 and 4, and patients on dialysis. METHODS: A descriptive, cross-sectional analysis was performed using data from the Adelphi CKD Disease Specific Programme in France, Spain, Italy, Spain, and UK between June and September 2012. Healthcare resource utilisation data was extracted from patient self-completion questionnaires and physician-completed patient record forms. Absenteeism and work-related activity impairment data were obtained from the Work Productivity and Activity Impairment questionnaire. RESULTS: A total of 1336 patient self-completed questionnaires were received from an evaluable population of 2898 CKD patients (stage 3, 4, and on dialysis). Across all patient sub-groups, anaemic patients accrued more nephrologist visits over 12 months, compared to non-anaemic patients (2.7 vs 1.3). Anaemic patients also experienced a higher number of visits to a general practitioner (3.5 vs 2.9). Stratification of the data, by haemoglobin (Hb) level and dialysis status, revealed that the number of all anaemias was consistent across all stages. Patients with Hb levels <10 g/dL, compared to those with Hb levels of ≥12 g/dL, irrespective of dialysis treatment (0.7 vs. 0.2 and 0.9 vs. 0.5 admissions for non-dialysis and dialysis patients, respectively), experienced a statistically significant (P < 0.05) increase in dialysis patients (65 years, had higher rates of work absenteeism compared with non-anaemic patients (3.6% vs. 2.4% stage 4 and 14.6% vs. 7.6% dialysis). Anaemia caused greater activity impairment (whilst working) among CKD stage 3 patients (23.6% anaemic vs. 17.4%) and stage 4 patients (26.4% anaemic vs. 20.0%), compared with dialysis patients (37.2% anaemic vs. 44.6%). CONCLUSIONS: Anaemia may have a substantial impact on healthcare resource utilisation and work productivity in patients with CKD. Further studies are warranted to evaluate the humanistic impact and direct economic burden of anaemia in CKD.

Puko5 ECONOMIC EVALUATION OF HEALTH SPENDING AND HEALTH OUTCOMES IN THE MANAGEMENT OF HEMODIALYSIS FOR TWO INSURANCE COMPANIES IN COLOMBIA Acuña L1, Brynn A3
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OBJECTIVES: To determine the economic impact through an economic evaluation in relation to expenditure and quality of care for patients with chronic kidney disease (CKD) on health insurance and their network of providers between 2013 and 2014. METHODS: The information system containing data tracking high costs in the Colombian health system, an economic tool was generated with the methodology of economic evaluation recommended by the World Health Organization, stage 5: 229,262 patients (2013) and 234,787 (2014), which were selected on hemodialysis activities (1043/1602/96.51%) and 167/16334 (10.24%) respectively. The analysis included clinical conditions, economic impact and cost-effectiveness. RESULTS: The cost-effectiveness ratio (ICER) between 5 providers and 58 renal units. RESULTS: Comparing scenarios 2 insurance providers found that in RCE there is a difference range from US $ 3,727.28 to US $ 4,586.69 patient year (2013) and from US $ 10,93 to US $ 3,280.30 patient year (2014). The ICER was cost-saving scenarios in a difference of US $ 22,880.00 (2013) and US $ 69,733.80 (2014) and in non-cost effective difference per patient year it was US $ 158,145.07 (2013) and the actual cost difference per patient year was US $ 960.01 (2014). Additionally it was noted that the insurance 1 vs insurance 2 was saving the cost and RCE had a difference of US $ 1,086.54 per patient year (2013), then noted that insurance 1 vs. insurance 2 proved to be highly cost-effective, and RCE had a difference of US $ 2,340.04 per patient year (2014). CONCLUSIONS: 1) To support the evaluation of healthcare programs that hire insurance. 2) Complement health evaluation results through the economic evaluation of health care programs and 3) Identify what kind of joint venture agreement may be useful for the management of high-cost diseases.

RESEARCH POSTER PRESENTATIONS – SESSION III

HEALTH CARE USE & POLICY STUDIES

HEALTH CARE USE & POLICY STUDIES – Consumer Role in Health Care

PHP1 PATIENT INVOLVEMENT WITH PHARMACEUTICAL INDUSTRY DRUG DEVELOPMENT AND RESEARCH: A REVIEW OF THE LITERATURE Feoley K1, Holyk G2, Langer G2
1Fizer, Philadelphia, PA, USA, 2Langer Research Associates, New York, NY, USA

OBJECTIVES: To analyse the role of patients in pharmaceutical research and to describe the current state of knowledge of best practices. METHODS: A targeted review of the literature on patient involvement with pharmaceutical drug development and research. Approximately 150 articles were reviewed, including academic journal articles, corporate, foundation and government reports; and existing literature on patient involvement. RESULTS: Preliminary data demonstrate that patient involvement is within the industry of the value of understanding patient experiences and perspectives. Patient involvement in research varies tremendously, from superficial and tokenistic to highly substantial (e.g., patient involvement in every stage of the research process). To achieve training results, the following year the research perspective would increase by 25%. This demonstrates that patient involvement can lead to benefits for all stakeholders, including increased legitimacy and transparency, better alignment of research agendas with outcomes that patients value, higher data quality and better communication of results to lay audiences. Other sources, however, highlight barriers to incorporating patient-centered research, such as resistance to diverting research resources, defensiveness relating to researchers’ expertise and traditional practices and the time and effort necessary to include patient perspectives. CONCLUSIONS: While there is a growing literature on patient involvement in industry research, the current lack of robust evidence on the outcomes of patient involvement hinders effective inclusion of patients. Further development of a science of patient involve- ment is a necessary step for broadening and strengthening industry inclusion of patients in the drug development process.

PHP2 ARE THE ELDERLY CITIZENS READY FOR ASSISTED LIVING TECHNOLOGIES? AN ITALIAN CASE STUDY Cavello F1, Triste L2, Esposito R3, Aquilano M4, Doria P1, Turchetti C3
1Scuola Superiore Sant’Anna, Pontedera (Pisa), Italy, 2Scuola Superiore Sant’Anna, Pisa, Italy

OBJECTIVES: The aim of the paper is to analyze the needs and attitude of elderly people towards technology, as a prerequisite for designing and testing new healthcare technologies. METHODS: The study investigated the impact of assisted living and participatory research. A total of 1336 patient self-completed questionnaires were received from an evaluable population of 2898 CKD patients (stage 3, 4, and on dialysis). Across all patient sub-groups, anaemic patients accrued more nephrologist visits over 12 months, compared to non-anaemic patients (2.7 vs 1.3). Anaemic patients also experienced a higher number of visits to a general practitioner (3.5 vs 2.9). Stratification of the data, by haemoglobin (Hb) level and dialysis status, revealed that the number of all anaemias was consistent across all stages. Patients with Hb levels <10 g/dL, compared to those with Hb levels of ≥12 g/dL, irrespective of dialysis treatment (0.7 vs. 0.2 and 0.9 vs. 0.5 admissions for non-dialysis and dialysis patients, respectively), experienced a statistically significant (P < 0.05) increase in dialysis patients (65 years, had higher rates of work absenteeism compared with non-anaemic patients (3.6% vs. 2.4% stage 4 and 14.6% vs. 7.6% dialysis). Anaemia caused greater activity impairment (whilst working) among CKD stage 3 patients (23.6% anaemic vs. 17.4%) and stage 4 patients (26.4% anaemic vs. 20.0%), compared with dialysis patients (37.2% anaemic vs. 44.6%). CONCLUSIONS: Anaemia may have a substantial impact on healthcare resource utilisation and work productivity in patients with CKD. Further studies are warranted to evaluate the humanistic impact and direct economic burden of anaemia in CKD.

PHP3 BUILDING INTENTIONS WITH THE THEORY OF PLANNED BEHAVIOUR: A QUALITATIVE ASSESSMENT OF SALIENT BELIEFS ABOUT PHARMACY VALUE ADDED SERVICES IN MALAYSIA Hooy TL1, Hassali MA2, Salleh FM3, Gan V3
1University of Malaya, Penang, Malaysia, 2Universiti Sains Malaysia (USM), Pulau Pinang, Malaysia, 3Universiti Putra Malaysia, Serdang, Malaysia

OBJECTIVES: In order to improve pharmaceutical care delivery in Malaysia, Ministry of Health implemented the comprehensive service. (CSE) for improving the quality of pharmacy care. Despite the reported convenience and advantages of CSE, it is noticed that utilization rate of CSE is low in the country. The study aims to explore patients’ understanding, salient beliefs and expectations towards CSE in Malaysia using the Theory of Planned Behaviour (TPB) as a theoretical model. METHODS: A qualitative methodology was used whereby face-to-face interviews were conducted with 12 patients who collected partial medicine supplies from government pharmacies. Participants were recruited using purposive and snowball sampling method in the State of Negeri Sembilan, Malaysia. Interviews were audio-recorded. Verbatim transcription and thematic content analysis were performed on the data. RESULTS: Thematic content analysis yielded five major themes. (1) Attitudes towards using CSE, (2) subjective norms, (3) perceived behavioural control, (4) lack of knowledge and understanding of CSE and (5) expectations toward CSE. CONCLUSIONS: The interviews explored and informed new information about salient beliefs towards pharmacy CSE in Negeri Sembilan, Malaysia. The findings suggest that CSE is still in its infancy and a more robust and effective advertising and marketing campaign is needed to boost the adoption rate. Behavioural attitudes, subjective norms and perceived control elements were discussed and serve as important variables of interest in future study. Expectations toward CSE serve as an important guideline to further improve patient-oriented services.

PHP4 ANALYSIS OF HEALTH SERVICES UTILIZATION AMONG ELDERLY IN SLOVENIA Henr R1, Prevolnik Rupel V3, Sarnat A2
1University of Ljubljana, Ljubljana, Slovenia, 2Institute for Economic Research, Ljubljana, Slovenia

OBJECTIVES: To analyse health services utilization among elderly in Slovenia. METHODS: Health services utilization among elderly depends on many factors. However, it is important to realize that older people in their consumption of health care services are not a homogeneous group as they may be particularly exposed to environmental influences and individual lifestyles. The factors that influence the use of health care resources among the elderly in Slovenia, we used a database of Wave 4 of the Survey of Health, Ageing and Retirement in Europe (SHARE). The SHARE data is self-reported and included indicators of health services utilization, such as the number of contacts with general practition-