However, CLAS may be comparably cost-effective by decreasing number and length of group meetings. Current studies are looking at the efficacy of a streamlined CLAS structure with reduced and centralized group sessions.

PHS63

ECONOMIC EVALUATION OF A RANDOMIZED CONTROLLED TRIAL OF PHARMACIST-SUPERVIZED PATIENT SELF-TESTING OF WARFARIN THERAPY

Gallagher J

University College Cork, Cork, Ireland

OBJECTIVES: The increase in numbers of patients requiring oral anti-coagulation testing in outpatient clinics has focused attention on alternative flexible systems of anti-coagulation management. One option is pharmacist led patient self-testing (PST) of international normalised ratio (INR) levels. PST has demonstrated improvements in anti-coagulation control, but its cost-effectiveness is inconclusive. This study reports the first cost-effectiveness evaluation of a randomized controlled trial of an automated direct-to-patient expert system, enabling remote and effective management of patients on oral anti-coagulation therapy. **METHODS:** We conducted an economic evaluation alongside a randomised controlled trial investigating a pharmacist led PST method. The primary outcome was to determine the cost effectiveness of PST in comparison with usual care (management in a hospital based anti-coagulation clinic). Long term anti-coagulation patients were recruited to a 6 month cross over study between PST and routine care in an anti-coagulation clinic. Economic evaluation was from the healthcare payer perspective. **RESULTS:** On a per patient basis over a 6 month period, PST resulted in an incremental cost of €59·08 in comparison with routine care. Patients achieved a significantly higher time in therapeutic range (TTR) during the PST arm in comparison with routine care, (72 ± 19·7% vs. 59 ± 13·5%). Overall cost of managing a patient through pharmacist supervised PST for a 6 month period is €226·45. Additional analysis of strategies from a societal perspective indicated that PST was the dominant strategy. **CONCLUSIONS:** Pharmacist led patient self-testing is a viable method of management. It provides significant increases in anti-coagulation control for a minimal increase in cost.

PHS64

COST-EFFECTIVENESS OF BREAST CANCER SCREENING IN THE NATIONAL BREAST AND CERVICAL CANCER EARLY DETECTION PROGRAM IN THE UNITED STATES

Ekwueme D[1], Hoerger T[2], Miller J[3], Allaire B[2], Subramanian S[4], Sabatino S[3], Royalty J[3], Li C[3]

[1]*Centers for Disease Control and Prevention, Chamblee, GA, USA,* [2]*RTI International, Research Triangle Park, NC, USA,* [3]*US Centers for Disease Control and Prevention, Chamblee, GA, USA,* [4]*RTI International, Waltham, MA, USA*

OBJECTIVES: The National Breast and Cervical Cancer Early Detection Program (NBCCEDP) is the largest organized cancer screening program for low-income, uninsured or underinsured women in the United States. The program's cost-effectiveness in delivering breast cancer screening services to the eligible women has not been quantified. To estimate the incremental cost-effectiveness of breast cancer screening in the NBCCEDP. **METHODS:** Building on an existing breast cancer screening simulation model developed by the Cancer Intervention and Surveillance Modeling Network, we incorporated data from the NBCCEDP on patient cohorts, screening frequency, and screening and diagnostic costs. We simulated breast cancer outcomes, costs, and quality-adjusted life-years (QALYs) associated with three scenarios: breast cancer screening under the NBCCEDP, screening that would take place in the absence of the program, and a no screening scenario. We estimated incremental cost-effectiveness ratios (ICERs) and conducted sensitivity analyses. All costs were expressed in 2010 US dollars. Costs and QALYs were discounted at a 3% rate. **RESULTS:** The estimated ICER for the program was $44,925 per QALY gained relative to no program and $43,956 per QALY relative to no screening. In the sensitivity analysis, ICER was more sensitive to screening costs and screening frequency. A lower screening cost reduces the estimated ICER to under $40,000 per QALY. On the other hand, a higher screening cost increases ICER. In probabilistic analyses, the mean ICER for the program compared with no program was $49,145 per QALY gained [95% confidence interval (CI): $20,893, $116,519 per QALY]. Relative to No Screening, the mean program ICER was $44,354 per QALY gained [95% CI: $22,937, $84,475 per QALY]. **CONCLUSIONS:** Breast cancer screening services in the NBCCEDP are on average cost-effective compared with screening outside the program or no screening. This finding supports the utility of the NBCCEDP program in serving the underserved populations.

PHS65

COST EFFECTIVENESS OF GROUP-BASED PARENTING PROGRAMS AND BIBLIOTHERAPY FOR PARENTS OF CHILDREN AT RISK OF DEVELOPING CONDUCT DISORDER: A MULTICENTER RANDOMIZED CONTROLLED TRIAL

Sampaio F[1], Enebrink P[2], Mihalopoulos C[3], Feldman I[1]

[1]*Uppsala University, Uppsala, Sweden,* [2]*Karolinska Institute, Stockholm, Sweden,* [3]*Deakin University, Melbourne, Australia*

OBJECTIVES: Parenting programs are effective in reducing child conduct problems (CP) but there are no cost-effectiveness analyses (CEA) comparing different programs within the same RCT. This study aimed at conducting a CEA of an RCT where the group-based parenting programs: Comet, Incredible Years (IY), Cope and Connect, and bibliotherapy were compared to a waitlist control with a time horizon of 4 months from a government payer perspective targeting CP in children aged 3-12 years. **METHODS:** The study samples consisted of 961 parents of 3-12 year-old children with CP, including 862 who started a program or reading a book, and 159 in the waitlist. CP were measured by the Eyberg Child Behavior Inventory (ECBI). Effectiveness was expressed as the proportion of "recovered" cases of CP based on the Reliable Clinical Change Index. Intervention costs and parents' time costs are reported. A CEA was performed comparing costs and effects between interventions that showed differences in outcomes and a cost-minimisation where outcomes were similar. **RESULTS:** All programs apart from Connect were effective in improving CP. Comet showed significantly higher proportion of recovered cases than the bibliotherapy (29.7% vs 17.4%) and higher costs. The CEA delivered an incremental cost-effectiveness ratio for Comet versus bibliotherapy of US$8594 per one recovered case of CP. The cost-minimisation delivered an average cost per recovered case of US$585 for the bibliotherapy, US$2445 for Cope and US$6624 for IY. **CONCLUSIONS:** In the absence of a willingness-to-pay threshold, bibliotherapy is the cheapest option to achieve minimal significant effects and could be a low-cost and easily delivered alternative within a limited budget. If decision-makers are willing to make larger investments Comet is the best alternative. Further studies are needed with longer follow-ups to ascertain on the sustainability of effects and a full economic evaluation to help decision-makers set priorities across different interventions.

PHS66

COST-UTILITY ASSESSMENT OF HEMODIALYSIS VERSUS DIALYSIS PERITONEAL, AS TREATMENT INITIAL MODALITY IN BRAZIL: A POPULATION BASE STUDY

Cherchiglia ML[1], Alvares J[2], Almeida AM[1], Andrade EI[1], Acurcio Fa[2], Andrade MV[1], Szuster DA[1], Guerra Jr AA[1], Queiroz OV[1], Gomes IC[1], Puig-Junoy J[3]

[1]*Federal University of Minas Gerais, Belo Horizonte, Brazil,* [2]*College of Pharmacy, Federal University of Minas Gerais, Belo Horizonte, Brazil,* [3]*Pompeu Fabra University, Barcelona, Spain*

OBJECTIVES: The aim of this study was to compare the cost-utility of hemodialysis (HD) and peritoneal dialysis (PD) as the initial modality of renal replacement therapy in Brazil. **METHODS:** We performed a retrospective cohort study using national administrative registries of all patients who began dialysis in 2000 through 2003 in Brazil. Propensity scores were calculated for the first treatment assignment from a large number of baseline covariates. The monthly expenditure per patient was estimated by summing all paid values extracted from the cohort. A utility measure was obtained from a nationwide observational cross-sectional study conducted in 2007. The Markov model was utilized to estimate the life-years gained (LYG), quality adjusted life-years (QALY) and the projected costs for 10 years. The Brazilian Public Health System perspective was considered. **RESULTS:** Our cost-utility study demonstrated superior performance of hemodialysis compared to peritoneal dialysis. As the initial modality, HD presented an incremental cost-effectiveness ratio (ICER) of US$ 14,833.05 per LYG; the incremental cost of PD was US$ 2,473.83. However, after 10 years, 92.5% of patients who started on HD and 95.8% who started on PD had died. **CONCLUSIONS:** Based on population data for the two methods currently used for the primary treatment of chronic kidney failure in Brazil, our analysis demonstrated that HD is superior to PD in terms of costs and QALY

PHS67

OUT-OF-POCKET MEDICAL COSTS FOR PARENTS WITH CHILDREN WITH DOWN SYNDROME IN THE UNITED STATES

Kageleiry A[1], Samuelson D[1], Duh MS[2], Lefebvre P[3], DerSarkissian M[4], Campbell JY[5], Skotko BG[6]

[1]*Analysis Group, Boston, MA, USA,* [2]*Analysis Group, Inc., Boston, MA, USA,* [3]*Groupe d'analyse, ltée, Montreal, QC, Canada,* [4]*Analysis Group, Los Angeles, CA, USA,* [5]*Harvard University, Cambridge, MA, USA,* [6]*Massachusetts General Hospital and Harvard Medical School, Boston, MA, USA*

OBJECTIVES: Financial considerations may impact the pregnancy decisions of expectant parents who receive a positive prenatal screening test result for Down syndrome (DS). This study estimates the out-of-pocket health care costs for parents associated with raising a child with DS between birth and 18 years of age, using private U.S. health insurance data. **METHODS:** Patients with a diagnosis of DS (ICD-9-CM 758.0x) who were enrolled in their family insurance plan as a child and had an identifiable parent were identified from the OptumHealth Reporting and Insights administrative claims database. A patient's observation time was divided into clinically relevant age categories for DS. Patients with DS in each age category were matched to controls without diagnoses for chromosomal conditions. Mean annual health care utilization costs were compared between the patient-age cohorts with DS and matched controls using Wilcoxon signed-rank tests. **RESULTS:** After matching, patient-age cohorts were statistically similar with respect to most demographic and family characteristics. However, patients with DS had significantly higher mean annual out-of-pocket costs than their matched controls within each age and cost category. Total annual incremental costs were highest among patients with DS from birth to age 1 ($1,907, $p<0.001$), when the need for surgery is greatest. The greatest incremental costs were inpatient costs in the first year of life ($925, $p <0.001$) and outpatient costs in later years (ranging from $623-$183, all $p<0.001$). Overall, patients with DS incurred incremental out-of-pocket medical costs of $18,248 between birth and age 18 years. **CONCLUSIONS:** Across all age categories, mean total out-of-pocket annual costs for parents were greater among individuals with DS compared to their matched controls. On average, parents of children with DS pay an additional $84 per month for out-of-pocket medical expenses when costs are amortized over 18 years.

PHS68

EXPECTED COSTS AND HEALTH OUTCOMES FOR A COHORT OF ALBERTANS DIAGNOSED WITH HEPATITIS C

Thanh NX[1], Jacobs P[1], Waye A[1], Tyrrell DL[2], Misurski D[3]

[1]*Institute of Health Economics, Edmonton, AB, Canada,* [2]*University of Alberta, Edmonton, AB, Canada,* [3]*Abbvie, Chicago, IL, USA*

OBJECTIVES: Individuals infected with hepatitis C (HCV) will transition through a series of disease stages over many years. This study estimates the incremental cost of direct medical care and health outcomes for a cohort of Albertans with HCV. **METHODS:** The study population was a closed cohort of 1190 persons (mean 50 years) diagnosed with HCV in Alberta in 2012. We used a Markov model with one year cycles and an annual discount rate of 3% to estimate HCV-related costs and health outcomes over 10, 20, and 30 year time horizons. We used a health system perspective with screening and treatment costs included. Alberta data sources were used when available. Otherwise we used information from the literature. One-way