OBJECTIVES: To examine the cost-effectiveness of planned caesarean section versus planned vaginal delivery in breech-presentation pregnancies at term. METHODS: An incremental cost-effectiveness analysis was performed using a Markov model for a hypothetical cohort of 25-year-old pregnant women with a live singleton fetus in a frank or complete breech presentation at term. Caesarean section was compared with vaginal delivery from a societal perspective. The model operated over 25 years in 3-year cycles. The model integrated clinical and cost data from peer-reviewed studies and utilities to estimate cumulative quality-adjusted life years (QALYs) and costs for both the mother and infant. Effects and costs were discounted at 4%. Probabilistic sensitivity analyses were performed to determine key parameter uncertainty. RESULTS: If only maternal condition was considered, caesarean section was more costly but more effective (incremental cost-effectiveness ratio (ICER) €54,000 per QALY), thus vaginal delivery was the dominated strategy. If only neonatal morbidity and mortality was considered, caesarean section was less costly and more effective (ICER €2120 per QALY). However, if outcomes for both mother and child were considered, caesarean section was more costly but more effective (ICER €1275 per QALY). CONCLUSIONS: Caesarean section resulted to be cost-effective compared to vaginal delivery in breech presentation at term, if both maternal and neonatal outcomes were considered. If only maternal condition is considered, vaginal delivery appeared to be the best strategy.

OBJECTIVES: To compare the cost-effectiveness of different therapies for the treatment of dysfunctional uterine bleeding (DUB) in Spain. METHODS: A decision-analytic model was built to estimate the clinical and economic consequences of initiating treatment for DUB with either levonorgestrel intrauterine system (LNG-IUS), combined oral contraceptives (COC), progestogens (PROG) or tranexamic acid (TRAX) and switching to COC (after failure with LNG-IUS or PROG) or to LNG-IUS (after failure of COC) or to a combination of both (50% to LNG-IUS and 50% to COC after failure with TRAX), whilst surgery (hysterectomy and endometrial resection) was assumed to be used as third line therapy in the base case. Model probabilities were obtained from published systematic reviews and treatment pathways after initial failure and/or presence of adverse events (including pregnancy in women requiring contraception) where derived from expert opinion. Local data on health resources use and costs were used and validated by clinical experts. Effectiveness was measured as symptom-free months (SFM) and modelled up to 5 years. The analyses take the perspective of the National Health System, so excluding all costs not supported by the public system (i.e. COC acquisition costs).

RESULTS: Preliminary results show that the higher efficacy of LNG-IUS translates to a gain of 0.3–3.42 SFM at 5 years. Whilst LNG-IUS shows a short-term higher cost than the other options, posterior savings derived from a lower surgery rate, due to a better control of DUB, yields to cost savings respect to PROG, COC and TRAX of €158.6, €179.6 and €270.7, respectively. Furthermore, if surgery is assumed to be the only second line option after first line failures, cost savings with LNG-IUS could be more than €400 after 5 years. CONCLUSIONS: Preliminary results of this study indicate that LNG-IUS is a dominant option with respect to COC, PROG or TRAX, with lower costs and higher effectiveness than these therapies.

OBJECTIVES: To summarise the existing evidence on the cost of primary insomnia in persons aged 55 and above in Sweden and to generate an estimate of its total societal cost based on national statistics and other public sources. METHODS: We performed a top-down cost of illness analysis based on the Living Conditions Survey and national registry data from the Swedish Social Insurance Board (Forsakringskassan), the National Board of Health and Welfare (Socialstyrelsen) and the
national pharmacy (Apotelet AB). Costs were calculated from a societal perspective by multiplying quantities of resources used with unit costs (presented in Euros 2007). RESULTS: In Sweden, about 326,100 patients over 54 years survive from acute insomnia (DSM-IV 307.42), a prevalence of about 12% in this age group. The associated costs exceed €151 million per year. About 44% are direct costs (outpatient care €40.4 m, drugs €22.5 m, diagnostic examinations €0.48 m, specialist visits €0.47 m and inpatient care €0.22 m) and 56% indirect costs (presenteeism €78.5 m, absenteeism €6.6 m and occupational and domestic accidents related to daytime dysfunction caused by poor sleep and current treatment €0.91 m and €0.57 m, respectively). Other relevant cost items that were not incorporated in this estimate, due to the high degree of uncertainty, include: cognitive behavioural treatment, productivity losses due to early retirement, medical costs due to comorbidities aggravated by insomnia, side-effects of current treatment (incl. increased risk of traffic accidents, tolerance, dependence and withdrawal symptoms), and quality of life losses.

CONCLUSIONS: Our results confirm that insomnia presents a substantial clinical and economic burden. The annual cost per patient (€463) is consistent with estimates for e.g. Germany, France and the US. As a large share of the costs fall outside the health care system, a societal perspective is important when evaluating treatments of insomnia.

INPATIENT LENGTH OF STAY AND TOTAL COSTS OF ILLNESSES OF PRESSING CONCERN FOR ASIAN-AMERICAN AND PACIFIC ISLANDER WOMEN IN THE UNITED STATES

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OBJECTIVES: To generate national estimates of the inpatient economic burden of key medical conditions among Asian-American and Pacific Islander (AAPI) females hospitalized in the United States in 2005. Conditions analyzed were based upon research conducted by the US Department of Health and Human Services, Office of Women’s Health, which identified conditions as strategies to address these illnesses among this minority population are developed.

RESULTS: Among hospitalizations for AAPI women in 2005, we found 485 hospitalizations for TB (with relevant ICD-9-CM diagnosis codes, was for tuberculosis (TB)), identified stays in which the primary or second diagnosis, using (unweighted of particular concern for this underserved population.

METHODS: Data from the 2005 HCUP Nationwide Inpatient Sample (NIS) database were analyzed for 438,577 hospital stays (unweighted = 91,092) for AAPI females. Among these, we identified stays in which the primary or secondary diagnosis, using relevant ICD-9-CM diagnosis codes, was for tuberculosis (TB), Hepatitis B (HBV), osteoporosis, cervical cancer (CC), and breast cancer (BC). Using sampling weights provided with the NIS dataset, national estimates of mean per-discharge length of stay (LOS) and total costs, and aggregate (i.e., summed across all discharges) total days and costs were estimated for each condition.

RESULTS: Among hospitalizations for AAPI women in 2005, we found 485 hospitalizations for TB (with relevant primary or secondary diagnosis only), 1237 for HBV, 672 for osteoporosis, 490 for CC, and 1594 for BC. For each condition, the mean per-discharge LOS and aggregate total days were 12.3 and 5611; 4.7 and 5804; 3.5 and 2325; 4.7 and 2316; and 2.7 and 4379 days, respectively. Finally, for each condition, the mean per-discharge and aggregate total costs were $20,563 and $9,099,718, $10,230 and $10,230, $8,284 and $8,284 and $5,269,951, $10,174 and $4,472,145, and $8,040 and $11,655,081, respectively.

CONCLUSIONS: In this study we examined the inpatient economic burden of illnesses that are of concern for AAPI women in the US. The total cost incurred for just these 5 conditions (4,478 discharges) was in excess of $40,000,000. Policy and other decision makers should be aware of the burden of these conditions as strategies to address these illnesses among this minority population are developed.

ASSESSING THE INCREASED MATERNAL AND NEONATAL HEALTH CARE COSTS ASSOCIATED WITH PREECLAMPSIA

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OBJECTIVES: To assess health care costs associated with a diagnosis of preeclampsia or hypertension during pregnancy by describing 5-month antepartum and delivery, and 3-month post-partum health care costs. METHODS: Pregnancy episodes (1999–2005) for female claimants ages 15–55 who met continuous enrollment criteria were constructed using a U.S. employer-based insurance claims database. Episodes were stratified based on a diagnosis of preeclampsia (ICD-9 642.4–642.7; N = 2,435), hypertension during pregnancy (ICD-9 642.0, 642.1, 642.3, 642.9; N = 2,419), or absence of either of these diagnoses (N = 39,597). Pregnancy-related maternal (5-month antepartum and delivery, and 3-month postpartum) and neonatal (3-month postpartum) health care costs were compared using nonparametric Wilcoxon rank-sum tests, with mean values reported here.

RESULTS: Antepartum and delivery costs were highest for the preeclampsia group ($13,491), followed by the hypertension ($8,899) and comparison ($8,075) groups (between-group differences p < 0.001). Inpatient costs in the preeclampsia group were $58% ($11,031 vs. $6,961; p < 0.001) and 63% ($11,031 vs. $6,781; p < 0.001) greater than in the hypertension and comparison groups, respectively. Maternal postpartum medical costs in the preeclampsia, hypertension, and comparison groups were $1623, $1028, and $741, respectively (between-group differences p < 0.001). Neonatal costs in the preeclampsia group were much higher than those in the hypertension and comparison groups ($7035 vs. $2784; p < 0.001 and $7035 vs. $2484; p < 0.001). More than 60% of all neonatal costs in the preeclampsia group were associated with neonatal or pediatric intensive care unit (NICU/PICU) services, compared to less than 40% in both the hypertension and comparison groups. Total maternal and neonatal postpartum costs were $8658, $3812, and $3266, respectively (between-group differences p < 0.001). CONCLUSIONS: Pregnancies with a preeclampsia diagnosis are associated with significantly higher maternal antepartum and delivery costs, and all postpartum costs. Neonatal costs are also significantly higher, largely due to NICU/PICU care of babies born to mothers with a diagnosis of preeclampsia.

COSTS AND OUTCOMES ASSOCIATED WITH IN VITRO FERTILISATION (IVF) OR INTRACYTOPLASMIC SPERM INJECTION (ICSI) USING RECOMBINANT FOLLICLE STIMULATING HORMONE (rFSH)

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OBJECTIVES: To evaluate, in a real-life clinical setting, the utilisation, cost and outcomes of assisted reproduction treatment (ART) with rFSH and assess whether the economic burden is consistent with that established by the UK National Institute for Health and Clinical Excellence (NICE). METHODS: Study...