OBJECTIVES: To estimate the direct cost of UP to the National Health Service (NHS) and the proportion of UP costs attributable to poor adherence in the United Kingdom (UK). The aim was to investigate the increased age effect on contraceptive usage (LARC) uptake were also explored. METHODS: An economic model evaluating costs and outcomes over an averaged one year period of contraceptive usage was constructed. Model inputs were derived from published literature and national survey data collected by the Office of National Statistics. Exploratory analyses were conducted to investigate the impact of women aged 20-29 years switching to LARC methods from existing contraceptive use. Cost-neutrality analysis was also performed whereby the minimum duration of LARC usage required to achieve a net cost impact of zero post-switch was assessed. RESULTS: Over 400,000 UPs occur annually in the UK at a rate of 34 per 1,000 women. Direct medical costs were estimated to be £382 million annually. Poor adherence accounted for 67% of all UPs, pertaining to costs of £256 million. In women aged 20-29 years, an estimated 213,794 UPs occurred at a cost of £184 million, 64% of which resulted from imperfect adherence. Missed medical appointments associated with LARC methods were estimated in women aged 20-29, when 10% switched from oral contraceptives (OCs) to LARC. The duration of LARC usage required to attain cost neutrality for patients switching from OCs was 1.65 years. CONCLUSIONS: The vast proportion of UPs and associated costs in the UK are attributable to contraceptive failure. Increased uptake of LARC methods in young women may generate significant savings to UK health care payers in under 2 years.

PIH13 THE COSTS OF UNINTENDED PREGNANCY IN RUSSIA
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The economic burden of early-onset neonatal sepsis (EONS) is currently uncertain in Russia. OBJECTIVES: To evaluate economic burden of EONS and mortality in the Russian Federation, including both direct and indirect costs. METHODS: Chosen methodology was based on the analysis of the sample of medical records from neonatal intensive care units (NICUs). Neonatal sepsis cases (2002-2009) were classified according to gestational age (GA). Direct costs were calculated based on the data about resource consumption in real practice. Indirect costs included underproduced contribution to GDP due to premature death and morbidity, resulting from disease, welfare and care payments, comprising disability support pensions. RESULTS: Mean cost of hospitalization to NICU (direct costs) per infant with EONS is estimated as €9,092. Mean direct costs for hospitalization per extremely-low-birth-weight (ELBW) infant are twice higher in comparison with mean direct costs per infant with GA ≥ 30 weeks of gestation (€21,056 per ELBW infant and €11,938 per infant with GA ≥ 30 weeks of gestation). Total underproduced contribution to GDP is estimated as €152,254 (87% of total costs) per infant with EONS, welfare and care payments, comprising disability support pensions - €14,721 (8%) per infant. Thus indirect costs account for 95% of expenditure. Total costs associated with EONS are estimated as €26,067 per GA ≥ 30 week. CONCLUSION: Development of treatment of EONS may play the crucial socio-economic role since it could significantly reduce the economic burden of the disease for the Russian Federation.

PIH14 COST OF ILLNESS IN WOMEN WITH ENDOMETRIOSIS
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OBJECTIVES: To evaluate the incidence of Herpes Zoster (HZ) and its complications in Israel, as well as related resource utilization, among the general population and among immunocompromised patients: METHODS: A retrospective analysis of the Maccabi Healthcare Services (MHS) database for all 2 million members of all ages for the years 2006-2010. Patients aged 18 years or older were identified using ICD-9-codes. RESULTS: These products are relatively expensive and warrant further pharmacoeconomic studies. The importance of studies which include diagnoses and clinical parameters cannot be overemphasised.

PIH16 EPIDEMIOLOGY OF HERPES ZOSTER AND ITS RELATED RESOURCE UTILIZATION: A LARGE POPULATION-BASED STUDY IN ISRAEL
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OBJECTIVES: To evaluate the incidence of Herpes Zoster (HZ) and its complications in Israel, as well as related resource utilization, among the general population and among immunocompromised patients: METHODS: A retrospective analysis of the Maccabi Healthcare Services (MHS) database for all 2 million members of all ages for the years 2006-2010. Patients aged 18 years or older were identified using ICD-9-codes. RESULTS: Annual incidence of HZ was 3.7 per 1,000. Incidence increased with age, to 51 000 SEK (5 600 Euro) per person per year. This is double the cost for the general population. Indirect costs for absenteeism and lower efficiency at work accounted to 40 000 SEK (4 500 Euro) per person per year, while informal care costs amounted to 2 000 SEK (200 Euro) per person per year. Women with endometriosis consult more frequently for free medical care and pharmaceuticals under the Swedish health care system than do the general population. CONCLUSIONS: Women with endometriosis consume more health care resources and medication than the general population and the reported productivity losses entail a significant cost for patients and society. Earlier diagnosis could contribute to lowering the resource consumption, as could improved treatment efforts and support from health care providers and society in large.
and gender, including physician visits, pain-clinic visits, and ED visits. In the 75–84 years age group, frequency of utilization was higher by 22%, 39%, 45% and 48% for these health care resources, respectively.

CONCLUSIONS: Epidemiology of HZ in Israel is similar to that reported for other countries. This illness presents a burden on the elderly population and is related with increased resource utilization.

PH17

COST BENEFIT ANALYSIS ON THE LONG TERM EFFECTS OF IN VITRO FERTILIZATION (IVF) IN GREECE: AN ANALYSIS BASED ON A LIFETIME MODEL

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OBJECTIVES: To quantify the economic effects of an in-vitro-fertilization (IVF) born persons in terms of productivity gains and net tax revenues for the state in Greece.

METHODS: A mathematical model was developed to assess the lifetime productivity and transactions between an individual and the governmental agencies. The model included a 25-year period where each lifetime was divided into three life periods: 1) employment: when the government primarily contributes resources through child tax credits, health care, and educational expenses; 2) employment, when individuals begin returning resources through taxes; and 3) retirement, when the government expands additional resources on Social Security and old-age programs. Cost of life birth with IVF was based on a modification of a previous published model developed by the authors. All outcomes were discounted at a 3% discounting rate. The data inputs, namely the economic or demographic variables, were derived from National Statistics. Cost of standard Total Parental Nutrition (TPN) and the cost of infections, ICU, and overall lengths of stay (LOSs) for both Intensive Care Unit (ICU) and elective surgery patients. Aim of this study is the CE analysis of its use in these patient populations, as compared to standard lipid emulsions.

RESULTS: Within a Discrete Event Simulation (DES) scheme, a patient-level simulation model was developed, with the inclusion of baseline outcomes rates from the Italian ICU patient population and from published literature, comparative efficacy data for standard and Omega-3 fatty acids-based regimens from the meta-analysis of published randomized clinical trials (conducted on 23 studies with a total of 1502 patients). Clinically significant and cost-effectiveness outcomes included in the model are: weight gains, nosocomial infection rates, and ICU/laboratory LOSs. Costs are referred to Italian, French, German and UK health care systems. Probabilistic and deterministic sensitivity analyses are undertaken to test results’ reliability. Results showed that Omega-3 emulsions emerged as more effective on average than standard TPN both in ICU and in non-ICU patients: in all the four national contexts here considered, reduced mortality rates, infection rates, and overall LOSs yield a lower total cost per patient. Treatment costs are completely offset by the reduction in hospital costs and antibiotic costs. Sensitivity analyses confirmed the robustness of these findings.

CONCLUSIONS: These results indicate that the addition of Omega-3 to standard TPN is expected to improve clinical outcomes and concurrently save money for Italian, French, German and UK hospitals.

PH18

CLINICAL EFFICACY AND COST-EFFECTIVENESS OF ADDITIONAL IMMUNOTHERAPY IN EARLY-ONSET NEONATAL INFECTIONS

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The economic and demographic variables, were derived from National Statistics. Cost of life birth with IVF was based on a modification of a previous published model developed by the authors. All outcomes were discounted at a 3% discounting rate. The data inputs, namely the economic or demographic variables, were derived from National Statistics. Cost of standard Total Parental Nutrition (TPN) and the cost of infections, ICU, and overall lengths of stay (LOSs) for both Intensive Care Unit (ICU) and elective surgery patients. Aim of this study is the CE analysis of its use in these patient populations, as compared to standard lipid emulsions. This study was conducted to estimate the relative cost-effectiveness of LNG-IUS 12 versus short-acting reversible contraception (SARC) in the United States from a third-party payer’s perspective. METHODS: A Markov model was constructed to compare the effectiveness and costs of LNG-IUS 12 and SARC over a 5-year period in a cohort of 1000 women aged 20 to 29 years, the age group in which most unplanned pregnancies occur. SARC methods comprise contraceptives commonly used by this age cohort, including oral contraceptives, the ring, the patch and injections. Primary health states included initial/continued use of contraceptive method and method failure (unplanned pregnancies). The impact of switching methods was also incorporated into the model and tested through sensitivity analysis. CONCLUSIONS: These results indicate that the addition of Omega-3 to standard TPN is expected to improve clinical outcomes and concurrently save money for Italian, French, German and UK hospitals.

PH19

COST EFFECTIVENESS OF PREMALEX (ESCITALOPRAM) COMPARED TO SERTRALINE FOR TREATMENT OF PMDD (PREMENSTRUAL DYSPHORIC DISORDER), BASED UPON THE CGI-S

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OBJECTIVES: To investigate the cost effectiveness of intermittent treatment of PMDD (premenstrual dysphoric disorder) with Premalex (escitalopram) 20 mg compared to sertraline 50 mg based upon the Clinical Global Impressions - Severity (CGI-S), from a societal perspective. METHODS: We identified one randomized placebo controlled trial with sertraline and one with Premalex, reporting the CGI-S as an outcome. Using placebo, the CGI-S was used to make an indirect effect comparison between Premalex and sertraline. The CGI-S was translated into QALY weights, through the proportion of time spent with a high degree of the anxiety/depression in the EQ-5D. Costs of health care visits were estimated using a local treatment pattern survey among GPs and gynaecologists. Official drug prices were used. A Premalex dose of 15 mg, the average of 10 and 20 mg, was assumed as it is stated in the SPC text that the majority of the patients will benefit from 10 mg. 37-75% lower drug costs were used in years 2-3 due to expected generic competition. Indirect costs were estimated using a published international study of the effect of PMDD on sick leave and productivity. A societal perspective was taken over a 3-year time horizon. RESULTS: During the first year, Premalex treatment increased drug costs (€1599), partly offset by indirect costs saving (€1431), resulting in a total cost of €186, compared to sertraline. An estimated gain of 0.004 QALYs with Premalex compared to sertraline gave an incremental cost per QALY gained of €4220 (€1700) per patient over 2 years, drugs costs were more than offset by indirect cost saving, leading to an overall gain of 0.013 QALYs and a savings of €600 per 3 years with Premalex compared to sertraline. CONCLUSIONS: Treatment of PMDD with Premalex is cost effective compared to sertraline, from a societal perspective.