study was set, methods employed, the inclusion of active comparators, and study endpoints. Data were extracted from each included research description.

RESULTS: Seventy studies met our inclusion criteria and were included in our dataset. Many of these analyses’ conclusions that PET is cost-effective; 38% of the cost-effectiveness analyses’ findings indicate ICERs less than $50,000 (2012 USD). Cost-effectiveness literature that makes PET a cost-effective intervention, and the growth of the cost-effectiveness literature more broadly with 35% of studies published since 2009. Across all ages, a smaller proportion of studies examining PET emanated from the USA than from other regions. PET analyses generally (99% vs. 42%). The majority of studies examined PET for oncological indications (n=58, 83%). The most common method employed was cost-effectiveness analysis, although two cost-minimization studies were also identified. Studies typically compared PET to either x-ray computed tomographic imaging or usual care. Diagnostic accuracy was not the most common single measure of effectiveness reported. CONCLUSIONS: There is substantial literature evaluating the cost-effectiveness of PET across a range of indications. Most studies were cost-effective analyses and not considered other methodological aspects, such as how PET imaging influences clinical decision making or changes patient outcomes.

**OBJECTIVES**: Novel specialty biopharmaceuticals hold great promise for patients with rare and orphan diseases. However, research in development costs, special handling, and other necessary enhancements to patient support programs all contribute to frequently higher prices for these products. This study sought to assess the value of specialty pharmaceuticals through an examination of the current state of the cost-effectiveness literature of these agents in treating various disease areas by pharmacoeconomic studies: rheumatoid arthritis (RA), multiple sclerosis (MS), and breast cancer (BC).

**METHODS**: A systematic review of market research and cost-effectiveness articles published between 1980 and 2012 and CSAs now surpass CEAs as the most common technique for child health state valuation. This 2012 article includes utility weights. The most common single measure of effectiveness reported. CONCLUSIONS: There is substantial literature evaluating the cost-effectiveness of PET across a range of indications. Most studies were cost-effective analyses and not considered other methodological aspects, such as how PET imaging influences clinical decision making or changes patient outcomes.

**PH29**

**COST-BENEFIT ANALYSIS OF CENTRALIZING CITY-WIDE MULTI-INSTITUTIONAL NEONATAL TOTAL PARENTERAL NUTRITION AT A SINGLE PEDIATRIC INSTITUTION**

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**OBJECTIVES**: Centralizing city-wide neonatal total parenteral nutrition (TPN) production to a single institution would result in reductions in errors, costs and adverse events. The objective was to determine the cost effectiveness of a model to compare the age-specific incidence, health care resource utilization, costs, quality-adjusted life years (QALYs) related to HZ, PHN and non-complications among unvaccinated and vaccinated individuals at age 50, 60, and 70 years. Health outcomes, resource utilization costs and counter services were considered.

**RESULTS**: Vaccinating at age 60 would prevent more shingles cases (26,147 cases per million persons) followed by vaccinating at age 70 while vaccinating at age 50 prevents the least number of shingles cases (21,269 vs. 19,795 respectively). However, vaccinating at age 70 would be the strategy with the biggest impact (8,055 PHN cases prevented), followed by age 60 and then age 50 (4,053 vs. 1,012 PHN cases prevented, respectively). Vaccinating at age 70, 60, and 50 would societally save €38,000, €80,000 and €272,000 per QALY saved, respectively. CONCLUSIONS: Overall, the optimal age for vaccination would be at 70 years. While various uncertainties remain, our results were robust based on the sensitivity analyses and the magnitude of the differences in outcomes and costs between strategies.
be cost-effective compared to the most prominent comparators in management of infertility in The Netherlands.

PIH33 COST-EFFECTIVENESS OF LONG-ACTING REVERSIBLE CONTRACEPTION: LNG-IUS 13.5 and LARC contraceptive levonorgestrel intrauterine SYSTEM versus ORAL CONTRACEPTIVES

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OBJECTIVES: This study aimed to evaluate the cost-effectiveness of LNG-IUS 13.5mg, a low-dose hormononal intrauterine contraceptive system for use up to 3 years, relatively to the most commonly used oral contraceptive (OC) in Canada from a societal perspective. METHODS: A state-transition model was developed to model the cost-effectiveness of LNG-IUS 13.5mg over 3 years in a cohort of 1,000 women of reproductive age (15-44 years). The comparator was a generic version of the 100 mcg progestogen hormone ethinyl estradiol. The model compared LNG-IUS 13.5mg with mutually exclusive health states: initial contraceptive method, unplanned pregnancy (UP), due to contraceptive failure and subsequent contraceptive method, taken up following UP or due to discontinuation of the initial method. The subsequent costs were calculated in cost-effective scenarios. Contraceptive failure and discontinuation rates were taken from published literature, resource use was estimated from product monographs and unit costs were taken from standard Ontario and Quebec cost databases. Analysis from the societal perspective allowed the model to incorporate economic costs associated with missed work. The key model output was cost per UP avoided. Probabilistic sensitivity analyses (PSA) were performed. RESULTS: LNG-IUS 13.5mg dominated OC, resulting in fewer UP (8 vs 10) and lower total costs ($860,224 vs $1,102,456), representing a savings of $437,232 over 3 years. Overall savings resulted from fewer UP and avoided costs associated with the uptake of the subsequent contraception method. PSA results indicated a high probability of dominance as all iterations showed LNG-IUS 13.5mg to be more effective and less costly. CONCLUSIONS: LNG-IUS 13.5mg is an effective contraceptive option that generates savings compared to a generic OC.

PIH34 ECONOMIC EVALUATION OF OXYTREN IN UNELECTED INJECTION SYSTEM versus STANDARD PACK OF OXYTREN FOR THE PREVENTION OF POSTPARTUM HEMORRHAGE IN LATIN AMERICA

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OBJECTIVES: Postpartum haemorrhage (PPH) is a leading cause of maternal death. Although the strong evidence showing the efficacy of oxytren in preventing PPH, its use remains suboptimal. The Unject system pre-filled with oxytren (OUI) has been associated with lower rates of PPH compared with standard packs of oxytren. This study objective is to evaluate the cost-effectiveness of OUI in Latin America (LAC).

METHODS: We built an epidemiological model to estimate the impact of replacing oxytren in ampoules with OUI on the incidence of PPH, quality-adjusted life years (QALYs) and costs from a health care perspective. We estimated interventions for PPH on epidemiology and cost studies was undertaken. A consensus panel among LAC experts was performed to quantify the expected increase in QCR as a consequence of all four PPH adaption cost and probabilistic sensitivity analyses were used. RESULTS: In the threshold analysis the minimum required increment in QCR to make OUI a cost-effective strategy ranged from 1.3% in Suriname to 16.2% in Jamaica. Additional cost-effectiveness results were conducted. The model was validated by comparing life expectancy results to a model utilizing relative risks of cancer and chronic diseases based on cancer consumption and undernutrition rate. Deterministic and probabilistic sensitivity analyses were conducted. The model was validated by comparing life expectancy results to a model utilizing relative risks of cancer and chronic diseases based on cancer consumption and undernutrition rate. Deterministic and probabilistic sensitivity analyses were conducted. The model was validated by comparing life expectancy results to a model utilizing relative risks of cancer and chronic diseases based on cancer consumption and undernutrition rate. CONCLUSIONS: In this analysis, oxytren consumption was associated with increased QALYs and was shown to be potentially cost-effective, especially if home prepared or purchased from low-cost vendors. Given the observational nature of the study data, further research is warranted to validate these findings.

PIH35 THE COST-EFFECTIVENESS OF ANTENATAL SYPHILIS SCREENING USING POINT-OF-CARE TESTING IN LATIN AMERICA

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OBJECTIVES: Untreated syphilis in pregnancy is associated with adverse clinical outcomes to the infant. In Latin America, roughly three out of every ten women are not tested for syphilis during pregnancy. The objective of this analysis was to evaluate the cost-effectiveness, budget impact, and potential reduction in adverse outcomes associated with antenatal syphilis screening. METHODS: This objective was introduced point of care immunochromatographic strip test across 20 countries in Latin America. METHODS: A previously published cost-effectiveness model was adapted to reflect the characteristics of the intervention. Clinical outcomes of infants born to syphilis-infected mothers on the endpoints of stillbirth, neonatal death and congenital syphilis were obtained from published sources. Treatment was assumed to consist of three injections of benzathine penicillin G. Costs were calculated to assess the number of stillbirths by up to 2,900, neonatal deaths by up to 1,100, the annual incidence of congenital syphilis 90 and avert up to 130,000 DALYs at an incremental annual direct medical cost of US$ 5.9 million. The three relatively high prevalence countries of Brazil, Colombia and Haiti, account for over half of the total DALYs that could potentially be averted, whereas other countries have already adopted universal screening. We used local adherence rates and costs to estimate costs per antenatal syphilis screening. Use of ICS tests for antenatal syphilis screening is highly cost-effective in low and middle income countries in Latin America. Antenatal programs should either expand access or maintain full access to syphilis screening using the ICS test.

PIH36 COST-EFFECTIVENESS ANALYSIS OF COFFEE CONSUMPTION FOR PREVENTION OF ALL-CAUSE MORTALITY IN THE UNITED STATES

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OBJECTIVES: Coffee (Coffee arabica) contains over 1,000 distinct molecular compounds and is one of the most widely consumed beverages worldwide. Epidemiologic studies have shown an inverse relationship between coffee consumption and all-cause mortality. This analysis aims to assess the cost-effectiveness of coffee from the perspective of the US consumer and payer. A cohort life-table analysis was developed to model life years (LYs) of US coffee consumers vs non-consumers over a lifetime horizon. Age- and gender-specific mortality rates were used to model survival outcomes. Relative risks of death by average coffee intake (cups/day) were obtained from a recent large, prospective US cohort study. Costs per cup were estimated for home preparation and obtained from a national sample of low- and high-cost vendors. Incremental analyses were conducted by cost, sex, and level of daily coffee consumption. Deterministic (PSA) and probabilistic (PSA) sensitivity analyses were conducted. The model was validated by comparing life expectancy results to a model utilizing relative risks of cancer and chronic diseases based on cancer consumption and undernutrition rate. A160

PIH37 COST EFFECTIVENESS ANALYSIS OF THE USE OF HUMAN FIBRINOGEN (CLOTTAFACTR®) IN MASSIVE POST-PARTUM HEMORRHAGE IN MEXICO

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OBJECTIVES: Maternal Death (MD) in a health public issue in Mexico, the MD Ratio (Mortality Rate) of 4.3 deaths/100,000 newborns, the Post-Partum Hemorrhages (PPH) repre- sents the second cause of MD (23%), with a higher impact in mexican provinces with poor or limited blood products access. The purpose of this study was to estimate the health economic impact and the cost-effectiveness of MSF in the use of Human Fibrinogen (HF) (Clofaktar®) in the hematologic treatment of massive PPH during limited access of blood products (access after 20 minutes). METHODS: A deterministic model was created to simulate the decision making process in a hospital. The model was generated under a limited blood product access scenario, the use of HF or the use of recom- binant Factor VIIa (Factor vIlia). The effectiveness was obtained from literature. The costs were estimated throughout an expert consensus and were expressed in US dollars (exchange rate 1USD=19.20 MX). The CER and ICEs was estimated to be 5,457 USD and 0.93 USD respectively. CONCLUSIONS: Human Fibrinogen represents the best treatment alternative for the PPH in Mexican provinces with poor access to blood products and it would significantly reduce the MDR in Mexico.

PIH38 COST EFFECTIVENESS OF HYSTEROSCOPIC TUBAL STERILIZATION (HTS) COMPARED TO LAPAROSCOPIC TUBAL STERILIZATION (LTS) FOR PERMANENT BIRTH CONTROL

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OBJECTIVES: The objective of this study was to assess the cost-effectiveness of hysteroscopic tubal sterilization (HTS) for permanent birth control, compared with laparoscopic tubal sterilization (LTS). METHODS: Cost effectiveness was assessed from the health service provider perspective. The model was developed to compare the health benefits and resource expenditures associated with three alternative protocols: Calgary HTS protocol, Saskatchewan HTS protocol, and LTS. The analysis incorporated patient characteristics, surgical outcome and postoperative diagnosis. The time horizon for the analysis considered costs from initial surgery to follow-up diagnosis up to 6 years post-surgery. Clinical and epidemiological data came from a review of literature and expert opinion. Costs for LTS were primarily obtained from provincial administrative databases. RESULTS: Both the