2002 and 335 million in UK during 2001. CONCLUSIONS: Ullrostril appears as effective as levornesoxel in preventing unintended pregnancies with similar safety profile. Substantial cost-savings can be expected with appropriate awareness programs about emergency contraceptives among women.

**PH2**

**PIVOTAL INTENSIVE CARE UNIT (PICU) ADMISSIONS FOR RESPIRATORY SYNCYTIAL VIRUS (RSV) INFECTION IN THE ERA OF PALIVIZUMAB PROPHYLAXIS**

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**OBJECTIVES:** To examine the characteristics of patients admitted to PICU with RSV infection following provincial approval of RSV prophylaxis in June 2002. Secondly, to determine if patients had received palivizumab and document incurred medical costs.

**METHODS:** A retrospective, hospital medical records review of all PICU admissions for RSV infection from January 1, 2003 to December 31, 2009. RSV infection was identified by ICD codes and cases were confirmed by RSV IFA test, culture, or PCR.

**RESULTS:** A total of 181 patients were admitted with RSV infection over 7 years. Group 1 (n = 132) and Group 2 (n = 49) had a mean admission age in months (SD); 3.7 (5.7) versus 59.9 (37.7). Majority (79.6%) Group 1 versus only 20.7% Group 2 (< 18 years). Only 3.3% children had received prophylaxis. 1 death was attributed to RSV infection.

**CONCLUSIONS:** Compared with the observed data the model estimates are conservative. The more favorable observational results are explained by the indirect vaccine effect on non-vaccinated age groups which is not captured by the static model. The relatively better model fit in the < 2 y old with increasing time is explained by the accumulated vaccine impact over time: from 26% (1st year) to 68% (3rd year). Rotarix is a trademark of the GlaxoSmithKline group of companies.

**PH3**

**PARENTERAL ALANYL-GLUTAMINE IN CRITICALLY ILL PATIENTS: A BAYESIAN META-ANALYSIS OF PUBLISHED TRIALS**

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**OBJECTIVES:** Glutamine, although abundant in human tissue, can become conditionally essential in clinical situations with hypercatabolism and glutathione depletion (burns, pancreatic necrosis, surgical complications), but has not been added to parenteral nutrition solutions for a long time, for its alleged non-essentiality and the low solubility of this dipeptide in aqueous solutions, which have been solved by conjugation with alanine. In 2002 a meta-analysis of available trials conducted with alanylglutamine revealed significant reductions of mortality, infections and ICU length of stay. Since then, data from other trials have become available. Aim of the present study to update treatment effect estimates by means of a series of Bayesian random effects models. **METHODS:** We searched EMBASE and Medline for clinical trials of standard total parenteral nutrition (TPN) vs. TPN + parenteral alanylglutamine in critically ill patients reporting hospital mortality, relative ICU incident infection rate, and relative hospital length of stay. For each outcome, a series of Bayesian random effects models was specified, in which the treatment effect observed in the individual trials is assumed to be drawn from a common distribution and expressed as a relative risk or duration.

**RESULTS:** Outcomes from 15 trials and 781 patients were retrieved. The main models, i.e. simple hierarchical random effects models with neutral priors, estimate a relative mortality of 0.70 (95% CI 0.46–0.97), a relative infection rate of 0.71 (95% CI 0.49–0.97), and a relative length of stay of 0.91 (95% CI 0.76–1.00). Secondary analyses indicated some heterogeneity in the magnitude and reliability of the benefits in sub-groups of the wider critically ill patient population. Their posterior distribution knowledge layer is currently too narrow to allow more precise estimation. Glenister et al. permits to obtain comfortable reliability even on subgroup-specific treatment effects estimates. **CONCLUSIONS:** In conclusion, the available evidence supports a highly credible beneficial effect of alanylglutamine on mortality, infections and hospital length of stay in ICU admitted critically ill patients.

**PH4**

**COMPARING THE MODEL PREDICTED VACCINE IMPACT AGAINST ROTAVIRUS HOSPITALIZATION WITH OBSERVED DATA IN BELGIUM**

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**OBJECTIVES:** In reimbursement files models estimate the events avoided over time with new interventions. Simulations are performed in the absence of long-term observational data. In this study observed hospitalization data prior- and post-rotavirus vaccination in Belgium were compared to predicted (i.e. modeled) results after 1, 2 and 3 years. **METHODS:** A Markov cohort model estimated over time the number of hospitalizations potentially avoided with rotavirus vaccination in Belgium. We adjusted the model to the observed vaccine coverage and to Rotarix™ vaccine efficacy from clinical trials. The obtained modeling results were compared with observed data collected from 9 Belgian hospitals (2 years pre- and 3 consecutive years post-vaccination). Two outcomes of both studies are expressed as a percentage of hospitalizations for 2 age-groups (< 2 and <5 years old), after each year post-vaccination.

**RESULTS:** The differences are presented in absolute and relative (%) differences for each subsequent year post-vaccine launch. **RESULTS:** The observed data provided slightly better outcomes than the modeled results. After 1 year the absolute difference in decrease of hospitalizations between observed and modeled data was 3% (11%) for both age-groups. After 2 years the absolute differences were 3.5% (6%) and 6% (12%) for the <2 y and 5 y age-group respectively. In the last observation year the absolute differences were respectively 2.8% (4%) and 9.3% (13%). **CONCLUSIONS:** Compared with the observed data the model estimates are conservative. The more favorable observational results are explained by the indirect vaccine effect on non-vaccinated age groups which is not captured by the static model. The relatively better model fit in the <2 y old with increasing time is explained by the accumulated vaccine impact over time: from 26% (1st year) to 68% (3rd year). Rotarix is a trademark of the GlaxoSmithKline group of companies.