

were extracted and summarized. **RESULTS:** The study identified 16 adverse events associated with blood transfusions in which incidence rates were reported in the literature for the time period of 2000 to 2007. Of those, the adverse events with the highest associated mortality rate were: 1) acute haemolytic transfusion reactions due to non-ABO compatibility (between 2.11%–7.06%); 2) transfusion-related acute lung injuries (TRALI) (10% approx); and 3) bacterial sepsis (between 17%–22%). Reported as incidence rates, the most frequently reported adverse event was febrile reaction (0.9/1000 by transfusion units) and mild allergic reaction (1/50–1/100 by transfusion units). **CONCLUSION:** In spite of today's safety and quality controls measures for blood transfusions, a considerable risk of adverse events is still associated with them. Therefore, alternatives to blood transfusions should be considered when possible.

HEMATOLOGICAL DISORDERS—Cost Studies

PHM2

BUDGET IMPACT (BI) OF PARENTERAL IRON TREATMENT OF IRON DEFICIENCY ANAEMIA (IDA) IN SWITZERLAND

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OBJECTIVES: IDA, the most common form of anaemia, has a relatively high prevalence across Europe. IDA is common in pregnancy, postpartum and inflammatory bowel disease (IBD) with IDA prevalences of 18, 17 and 33% respectively. At present, treatment with parenteral iron substitution is limited by the amount of iron which can be administered intravenously in any one application. This study estimates the BI associated with partially substituting the standard i.v. treatment, iron sucrose, with a new treatment, ferric carboxymaltose, allowing for the application of higher dosages in a shorter time. The study adopted the perspective of the Swiss mandatory health insurance over 3 years covering the indications pregnancy, postpartum and IBD. **METHODS:** Resource use was based on primary data and guidelines. Costs were estimated using a fee-for-service reimbursement system (Tarmed), including drug, personnel and other costs. The price of ferric carboxymaltose was assumed to be that of iron sucrose +40%. The BI was estimated for the first 3 years post-launch, using a substitution rate of 20% in year 1 and 50% in year 2 and 3. **RESULTS:** Ferric carboxymaltose reduces the costs per treatment cycle and patient in IBD by 35% compared to iron sucrose (CHF 475 vs. CHF 732), due to reduced personnel costs: 1000 mg iron requires one application with ferric carboxymaltose and 5 for iron sucrose (200 mg each). Total savings to the Swiss mandatory health insurance amount to approx. CHF 1 Mio (approx. € 611'600) in year 1 and approx. CHF 2.5 Mio in year 2 and 3 each. Costs were also reduced by 33% in the gynaecological indication using smaller, empirical dosages of 500 mg. **CONCLUSION:** Treating IDA involves substantial costs to the Swiss mandatory health insurance. Substitution of iron sucrose by ferric carboxymaltose may help to reduce these due to saved personnel costs, despite higher product costs.

PHM3

CLINICO-ECONOMICAL ANALYSIS OF BORTEZOMIB VS DEXAMETHASONE IN RECURRENT OR TREATMENT-RESISTANT MULTIPLE MYELOMA IN RUSSIA

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OBJECTIVES: To analyze cost-effectiveness of bortezomib versus dexamethasone for recurrent or treatment-resistant multiple myeloma in Russian health care system. **METHODS:** The study was performed from the Russian reimbursement system point of view. An economic model prepared for the submission to National Institute of Health and Clinical Excellence was used as a framework. Effect of studied drugs was measured in life-years gained. The effectiveness was estimated on the basis of APEX study results and complemented with prognosis of long-term outcomes. Direct medical costs for medication were included into the model, registered prices were taken from the Russian reimbursement list while dose regimen and number of treatment courses were considered to be equal to those used in APEX study. The incremental cost-effectiveness ratio (CER) was calculated. **RESULTS:** The incremental effectiveness of bortezomib versus dexamethasone was estimated as 2,371–2,739 life-years gained (the interval includes minimal and maximal values identified by different approaches to long-term outcomes projection). The incremental cost was 1 822 774,00 rubles (about 70 thousands USD). The incremental CER was 67,510,148 — 792,510,43 rubles (25–29 thousands USD) per life-year gained. **CONCLUSION:** The incremental CER for bortezomib is comparable with other expensive drugs included into the reimbursement system. Further studies are needed to assess cost-effectiveness of bortezomib vs other therapeutic strategies used for resistant and recurrent multiple myeloma and to evaluate effectiveness in medical practice.

PHM4

CLINICO-ECONOMICAL ANALYSIS OF FERRUM LEK VS FENULS IN IRON-DEFICIENT ANEMIA IN ELDERLY PATIENTS

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OBJECTIVES: To analyze cost-effectiveness of Ferrum Lek (Ferrum III) versus Fenuls (Ferrum II) for iron-deficient anemia in elderly patients with gastrointestinal comorbidity in Russian health care system. **METHODS:** Randomized multi-center study of 132 ambulatory patients (60–86 years old, mean age 69.11 ± 6.39; 102 (77.27%) were females). Criteria for anemia was decreasing of hemoglobin (Hb) level below 110 g/L. Sixty-six patients received either Ferrum Lek (200 mg daily) or Fenuls (200 mg daily). Duration of treatment was 6 weeks. Criteria of effectiveness were: normalization of Hb level; increasing levels of Hb and Fe in plasma; adverse effects at day 42 after start of treatment. The cost-effectiveness ratio (CER) was calculated (cost of 1 g/L Hb increasing). **RESULTS:** At follow-up Hb level increases in Ferrum Lek group was 30.1 g/L (12.3–88.4) and 19.8 g/L (4–39) in Fenuls group. Normalization of Hb level (110 g/L) was achieved in 62 (93.94%) patients in Ferrum Lek group and in 53 (80.3%) patients in Fenuls group. Targeted Hb level (120 g/L) was achieved in 54 (81.82%) patients in Ferrum Lek group and in 36 (54.55%) patients in Fenuls group. Drop-outs due to adverse effects were: 1 patient in Ferrum Lek group and 9 patients in group. Gastrointestinal adverse effects occurred significantly more often in Fenuls group than in Ferrum Lek group (constipation in 21.2% and 1.5% patients, gastric complaints in 28.8% and 6% respectively). The cost per achieving