tion consisting of three dimensions, which explained 73.6% of the variance. Cronbach’s alpha was 0.92 for the 13 final items. CONCLUSIONS: The subscales: ease of use (α = 0.91), activity interference (α = 0.86), and social acceptability (α = 0.82) relating to expectations satisfied the criteria for scale reliability and validity. Subsequent use in measuring satisfaction prior to and after product experience is warranted.

HEMATOLOGIC/PITUITARY DISORDERS—Economic Outcomes

PPT1
COST-EFFECTIVENESS OF RECOMBINANT HUMAN ERYTHROPOIETIN FOR PREVENTING TRANSFUSIONS IN CRITICALLY ILL PATIENTS
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OBJECTIVES: Anemia occurs in approximately 75–95% of patients admitted to the ICU for at least 3 days and is associated with lengthened intensive care unit (ICU) stay and increased mortality. However, red blood cell (RBC) transfusion is also associated with deleterious effects and may increase mortality. The objective of this analysis was to examine the cost-effectiveness of using recombinant human erythropoietin (rHuEPO) to prevent or reduce the use of RBC transfusions in a mixed (medical/surgical/trauma) ICU. METHODS: The authors used decision analysis to examine the immediate and lifetime costs and effectiveness of using rHuEPO. The model included: feasibility (the deferral rate for allogeneic RBC transfusions), rHuEPO efficacy (the reduction in allogeneic RBC use), and adverse effects of rHuEPO and allogeneic RBC transfusions. Adverse effects of rHuEPO included deep venous thrombosis (DVT) and thrombocytopenia. Adverse effects of RBC transfusion included acute lung injury (ALI), hemolytic reaction (HR), and febrile reactions (FR) including hepatitis B (HB), hepatitis C (HC), human immunodeficiency virus (HIV), and human T-cell lymphotrophic virus (HTLV). Effectiveness was measured using discounted quality-adjusted life years (QALYs). Costs are expressed in 2002 U.S. dollars using 3% as the discount rate. Univariate sensitivity analysis was conducted to examine the impact of uncertainty in the parameter estimates on the results of the model. RESULTS: For the base case analysis, the cost-effectiveness of using rHuEPO to prevent anemia-related RBC transfusions was $17,806,000/QALY. Results of the sensitivity analyses revealed that the cost and total dose per patient of transfused of rHuEPO and RBC transfusion had the greatest impact on the expected cost of therapy. QALY decrements associated with adverse effects had minimal impact on the expected effectiveness of treatment. CONCLUSIONS: It is unlikely that the use of rHuEPO to prevent or reduce RBC transfusions in a mixed ICU population is cost-effective.