Cost analysis of a fibrin sealant patch for parenchymal bleeding during elective hepatic surgery: A germany hospital perspective.

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Publication Date: 2014

Abstract:

Objectives: Hemostasis after liver resection may be difficult to achieve and there is thus an increased focus on reducing blood loss and resource use with hemostatic products. This study estimated the cost impact of a novel fibrin sealant patch (i.e., EVARREST) vs. standard of care (SoC) for bleeding control in hepatic resection. Methods: An economic analysis quantified 30-day cost impact of EVARREST vs. SoC from a German hospital perspective. This analysis used data from a randomized trial, which included aggregated resource use reported within 30 days. Resources included initial treatment and re-treatment, operating time, hospitalization, transfusions, and ventilator. SoC was composed of manual compression with a small percentage using hemostats. The primary analysis included resources clinically related to the significant hemostasis benefit of EVARREST vs. SoC (i.e., initial treatment and re-treatment with hemostasis methods, operating time, transfusions, and blood units). A secondary analysis included all resources evaluated in the primary analysis with the addition of hospital stay, proportion of patients using ventilator, and mean ventilator hours. A projected global price for EVARREST was used based on average USD to Euro exchange rate over the last 10 years. Published data on German costs were applied to resource use. Sensitivity analyses were conducted on several variables including EVARREST costs (472 to 735) for available sizes. Results: The primary analysis predicted that EVARREST acquisition cost is offset with cost impact reduced to 82 per patient vs. SoC (sensitivity range: - 86 to 225). Secondary analyses predicted further resource reduction with EVARREST leading to cost-savings (i.e., - 458 per patient). Operating time and hospital stay were important

analysis drivers. Conclusions: This analysis suggests that EVARREST may result in cost savings, in addition to meeting an important unmet need for controlling bleeding in hepatic surgery. Further study in more patients may be required to confirm findings.