

O51 BIOSYNTHETIC MESH VERSUS NON-ABSORBABLE SYNTHETIC MESH IN COMPLEX ABDOMINAL WALL REPAIR (CAWR): A UK NHS COST-CONSEQUENCE ANALYSIS OF MANAGEMENT STRATEGIES

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Aim: CAWR is marked by high complication and hernia recurrence rates. Different management strategies of CAWR may result in a

significant reduction in quality of life and increased financial burden. The use of certain non-absorbable synthetic meshes in CAWR may be associated with an increased risk of adverse events for certain patients. Recent evidence suggests that biosynthetic meshes may contribute to lower complications and may be more cost-effective.

Material and Methods: To compare the cost between a synthetic mesh, and a bio-synthetic mesh in the management of patients undergoing CAWR. A cost-consequence model was developed to simulate clinical pathways for patients undergoing CAWR with different management strategies. Clinical parameters were informed by literature review and expert opinion. Adverse events associated with the use of a mesh, resource utilisation and re-admissions were compared between patient management strategies over a period of two years. Costing information were gathered from national tariffs using NICE methodology.

Results: Use of a biosynthetic mesh was associated with a significant reduction in total costs (£15,489 / €17,953) compared to a synthetic mesh at two years. Cost-savings were driven by a lower rate adverse events (hernia recurrence [2% vs.8%] and sepsis [5% vs. 12%] respectively), and resource utilisation after the initial procedure in the management of complications. There was no difference in the intra-procedural time and complications.

Conclusions: The use of a certain biosynthetic mesh is likely to be highly cost saving compared to a certain synthetic mesh in high-risk patients undergoing CAWR. Well conducted comparative clinical studies are needed to inform robust economic modelling.