



Impact Of Postoperative Complications On The Cost Of Physician Modified Fenestrated Branched Endovascular Repair Of Complex Abdominal And Thoracoabdominal Aortic Aneurysms

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Background

- Physician Modified Fenestrated Branched Endovascular Aortic Repair (PM-FBEVAR) widely utilized for complex abdominal (cAAA) and thoracoabdominal aortic aneurysms (TAAA).
- Previous studies have highlighted that current reimbursement models are often inadequate, with **negative operating margin**.
- Major adverse events (MAE) may occur frequently after PM-FBEVAR. The financial burden of MAE after PM-FBEVAR is unclear.

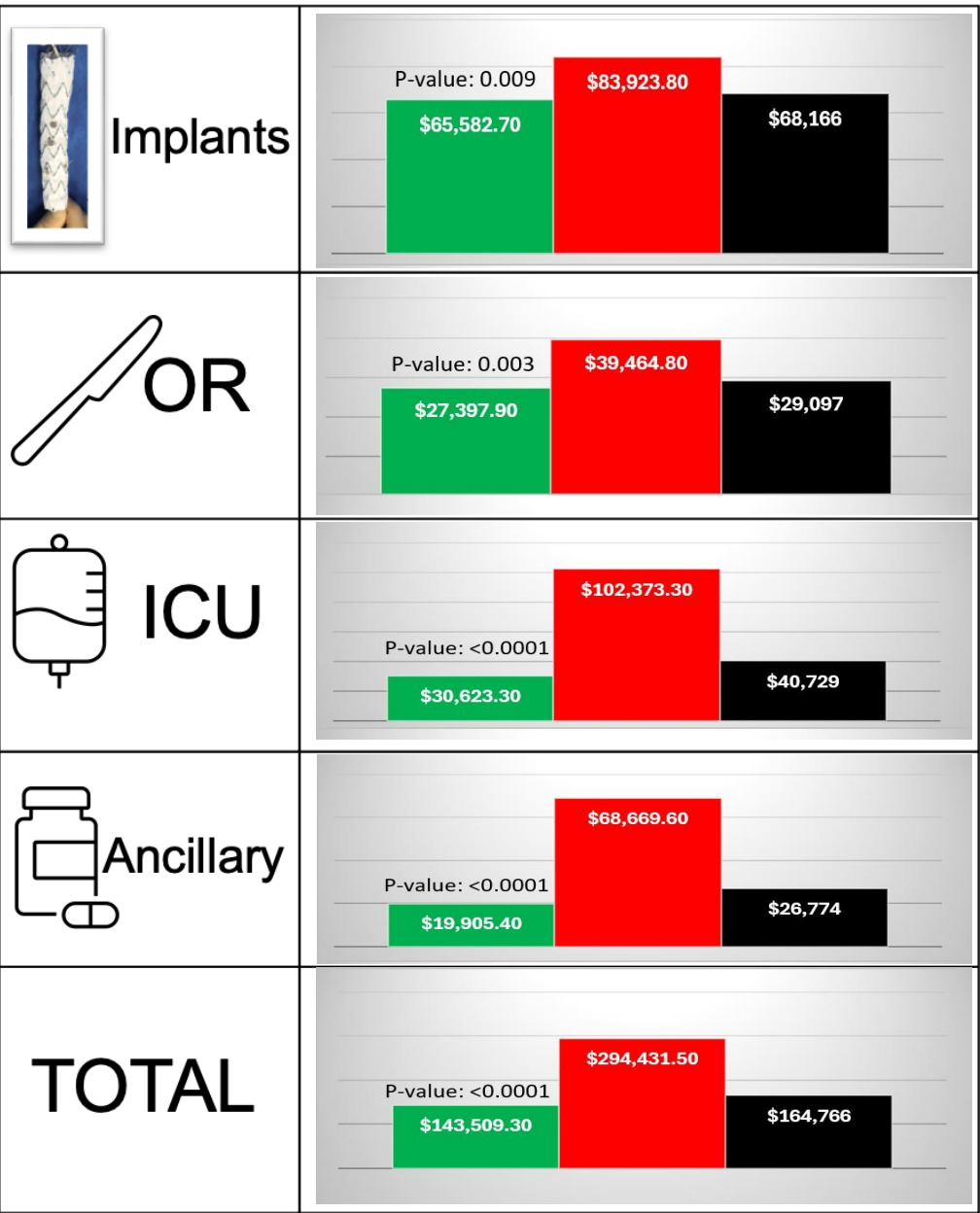
Objective

This study aimed to quantify the impact of MAE on the **costs associated with care of patients undergoing PM-FBEVAR**

Methods

- Retrospective** analysis of patients undergoing PM-FBEVAR at a **single institution** between 2019-2022
- Categorize index hospitalization costs among survivors by
 - Implants
 - Operating room (OR)
 - Intensive care unit (ICU)
 - Ancillary
- Compare total and categorized costs between patients with and without MAE**

No MAE MAE Overall



Results

- 228 patients were included in the study
- In-hospital mortality: 6.6% (15 patients)
 - Of the 213 survivors, 30 (14%) experienced 71 MAEs
 - Mean direct cost of in-hospital care was \$164,766 (range: \$39,745–\$806,230)
 - Patients with MAEs vs No MAEs
 - More than doubled in-hospital costs (\$294,431 vs. \$143,509, $P < .0001$)
 - Tripled ICU and ancillary expenses
 - Implant costs were the largest contributor for patients without MAEs, while ICU costs were the largest contributor for those with MAEs

Group	N=	Total Cost	Dominant Cost
No MAE	183	\$143,509	Implants
MAE	30	\$294,431	ICU
Overall	213	\$164,766	Implants

Conclusions

- MAE after PM-FBEVAR more than double hospitalization costs.
- Optimizing patient selection and physician expertise may impact financial sustainability of complex EVAR programs.