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Improving the Quality of Data in Surgical Registries

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In this issue, Hicks and colleagues¹ outline results achieved for abdominal aortic aneurysm repair in the National Surgical Quality Improvement Program registry in recent years. Patients undergoing endovascular repair in community hospitals were more likely to die perioperatively compared with patients at academic hospitals, and smaller hospitals had poorer results with open abdominal aortic aneurysm repair. Even more concerning was the fact that overall rates of mortality were nearly 5% for endovascular repair and nearly 15% for open abdominal aortic aneurysm repair.

Why would mortality be so high? It is difficult to know; the authors hypothesize that smaller hospitals may have difficulty rescuing patients more readily when complications occur. This hypothesis certainly may be correct. However, several reports have shown that the technical aspects of open and endovascular abdominal aortic aneurysm repair—clamping below the visceral arteries, avoiding intraoperative hemorrhage, and understanding aneurysm anatomy to limit surgical and endovascular misadventures—are more likely the key to achieving good results.²⁻⁵ Unfortunately, the data elements provided in this study—*Current Procedural Terminology* codes alone—are limited in providing the technical details necessary to bring mortality risk into sharp relief. The National Surgical Quality Improvement Program's development of procedure-specific modules and detailed national registries, such as the Society for Vascular Surgery's Vascular Quality Initiative, are definite steps in the right direction.

Whether the data are limited or extensive, one fact is clear: mortality rates exceeding 10% are too high for elective aortic aneurysm repair. Perhaps these patients were facing dramatic rupture risk from very large aneurysms, or their repairs were technically difficult because they involved the renal or intestinal arteries. These details, and many others, will be a key and requisite part in guiding how we assess vascular practice patterns and outcomes.

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