

INVITED COMMENTARY

Accurate Clinical Data is Vital in the Age of Surgeon Level Outcome Reporting

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Data are only as good as the system that collects them. It is crucial to have good healthcare data to draw robust and accurate conclusions, not only for individual clinician feedback but also to better inform patients. Venermo and Lees have shown the Swedish data collection for the SWEDVASC Registry to be on the whole highly accurate.¹ It seems that most of the discrepancies found in external validation were a result of administrative errors, and the main issue in internal validation was one hospital not recording pre-operative risk factors of diabetes and smoking, which was attributed to a poor administrative culture. This is a robust database and the Swedish vascular surgeons and patients alike can be confident in its accuracy.

The accuracy of clinical data recording has become of increasing importance in the UK. Since the NHS Commissioning Board's publication "Everyone Counts: Planning for Patients 2013/14," the UK government have been pushing for individual surgeon outcomes to be published, to better inform the public.² This is following the lead of cardiac surgery, in which there are well-established index procedures and a culture of recording outcomes, to allow comparisons between colleagues and improve skills.

In June 2013, the National Vascular Registry published consultant-level statistics on stroke and peri-operative mortality for carotid endarterectomy, and peri-operative mortality in elective infra-renal abdominal aortic aneurysm (AAA) repair.³ However, a surgeon is much more than just an individual, and here the argument lies. Should surgical outcomes be expressed at surgeon or at unit level? The latter would take into account the whole surgical episode, including multidisciplinary team decision-making, the anaesthetic team, high dependency and ward-based care.

Concerns that the reporting of surgeon-level outcomes may lead to risk-averse behaviour, with surgeons becoming reluctant to offer intervention in high-risk cases, may have been borne out in the UK outcome data reported in 2014.⁴ These data demonstrated a fall of 4.5% in the number of elective AAA repairs performed in the UK, between 2012 and 2013, the first year of surgeon-level outcome reporting.⁴

Another aspect to consider following the publication of surgeon-specific outcomes is the impact on training. The Association of Surgeons in Training (ASiT) in the UK has expressed concerns about this,

identifying that eight of the nine surgical audit databases from which outcome data already have been published were not designed for this purpose, and emphasised that data used should be properly risk adjusted.⁵ In vascular surgery, a number of risk models have been developed, particularly for AAA repair. The most accurate of these is the contemporary AAA SCORE⁶ developed from the UK National Vascular Database, which can be used for both risk adjustment of published outcome data and pre-operative counselling. However, this does not allay the apprehension that when outcomes are attributed to a specific surgeon, they may be less likely to allow a trainee to perform the procedure. This is supported by research in cardiothoracic surgery, which showed a significant reduction in both proportion and variety of cases performed by trainees after the 2002 introduction of surgeon-specific data collection.⁷ It is important that training opportunities in vascular surgery are not adversely impacted by surgeon-level outcome reports.

In conclusion, reliable data are important, and it is encouraging that the data recorded in the SWEDVASC registry are accurate. However, it must be ensured that data are used for the right reasons, that is, to improve patient care. A risk-averse culture is not desirable, and it is important that surgeons retain, and indeed learn, the skills required to operate on the complex, more life-threatening cases, when they are in the best interests of the patient. It is not in anyone's interest if a surgeon's primary concern is his or her own figures, if an adverse outcome were to occur.

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