Study finds public reporting of death rates is unlikely to identify poorly performing surgeons

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New research published in *The Lancet* suggests that the publication of death rates for individual surgeons in England, launched for the first of a new group of 10 specialties last week, is unlikely to correctly identify poorly performing surgeons in some specialties, because low numbers of key operations lead to unreliable results.

"Our study reveals that although mortality rates may reflect the performance of individual surgeons for some procedures like cardiac surgeries which are performed more frequently, they may be far less effective for other procedures such as bowel cancer resection which is done less commonly", explains Dr Jenny Neuburger, one of the researchers from the London School of Hygiene & Tropical Medicine who carried out the research.

"The danger is that low numbers will mean that chance factors overwhelm the influence of surgeon performance on the number of deaths. This could mask poor performance and lead to false complacency."

Using national mortality data for adult cardiac surgery and key operations in three other specialties (bowel cancer resection, oesophagectomy or gastrectomy, and hip fracture surgery), the research team calculated how many procedures would be necessary for reliable detection of poor performance and how many surgeons in English NHS

hospitals actually do that number of operations. They found that the numbers of operations needed for the statistical power necessary to detect truly poor performance exceed the annual number of procedures typically done by surgeons.

For example, they estimated that for bowel cancer surgeries, to achieve even 60% statistical power (meaning that of ten surgeons that were truly performing poorly, on average six would be identified) the annual median number of surgeries would need to be ten times higher than it currently is.

When looking at 3 years of data, about three-quarters of surgeons do sufficient numbers of hip fracture and cardiac operations every year to identify cases of poor performance. For bowel cancer resection and oesophagectomy or gastrectomy procedures the percentages were just 17% and 9% respectively, and rose to about a third of surgeons based on five years of data.

It was hoped that public disclosure of surgeon performance would provide transparency, help patients choose the best surgeons, and provide an incentive to improve the quality of care. But such reporting is only useful if it contains accurate information. According to Dr Neuburger, "The reporting of results for individual surgeons should be based on outcomes that are fairly frequent, and fortunately, from the point of view of patients, mortality is not one of them. For specialties in which most surgeons do not perform sufficient numbers of operations to reliably assess their outcomes, reporting should be at the level of the surgical team or hospital, and not the surgeon."

More information: www.thelancet.com/journals/lan … (13)61491-9/abstract