

LETTERS

MORTALITY AND HOSPITAL RANKING

Can hospital mortality comparisons ever be fit for purpose?

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Nicholl and colleagues describe the well known limitations of comparisons of hospital mortality.¹⁻³ They also mention another—the choice of whether to include post-discharge mortality and, if so, over what period.¹ They conclude that “It might therefore be better to have two indicators of performance—an in-hospital measure and a two week post-discharge one. This would enable hospitals and commissioners to identify any problems with discharge decisions and post-discharge care.”

However, although this would be better than the existing measure, the variations in discharge practice that they describe, which may come down to something as simple as the timing of ward rounds, make it necessary to take account of the time at risk in each period. Thus, a hospital that discharges patients quickly could deflect attention, incorrectly, to post-discharge care. However, differences may also arise at the beginning of the hospital stay, with differences in the time to a major procedure that markedly increase the risk of mortality. This gives rise to the phenomenon of time dependent bias, which—as Wolkewitz and colleagues noted in a recent paper that draws on examples as diverse as mortality of Oscar winners to nosocomial infections—can have important consequences for comparisons of outcomes.⁴

Yet another complication arises when patients are not discharged but are transferred to another hospital. The question that arises is when, in such cases, does the clock start ticking? A further challenge arises from the differing natural course of illnesses and recovery from procedures, with corresponding differences in the risk of mortality over time.

Given all of these problems, we must surely wonder whether, beyond carefully specified research studies, hospital mortality comparisons can ever be fit for purpose.

Competing interests: None declared.

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- 4 Wolkewitz M, Allignol A, Harbarth S, de Angelis G, Schumacher M, Beyersmann J. Time-dependent study entries and exposures in cohort studies can easily be sources of different and avoidable types of bias. *Clin Epidemiol* 2012;65:1171-80.

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