Correspondence

Letter by Blakey et al Regarding Article, “Mortality Among High-Risk Patients With Acute Myocardial Infarction Admitted to US Teaching-Intensive Hospitals in July: A Retrospective Observational Study”

To the Editor:

We read with interest the article by Jena and colleagues1 investigating the mortality of patients with acute myocardial infarction around the yearly junior doctor changeover. This carefully undertaken study shows the strength of such epidemiological analyses in robustly assessing effect size using large samples. It also highlights the major deficiency of these studies as it provides little insight into why the increase in mortality occurred and what educators, supervisors, or institutions might do to mitigate this risk.

Given that there is clear evidence that mortality is higher after changeover and during the weekend when junior staff are less well supported, we propose that it is now time to concentrate research efforts on studies that have a greater potential to reveal specific behaviors or errors that could be addressed. Examining subtask behavior has been a successful approach in other areas to understand response to change with safety implications.2 We are also used to seeing the performance of individuals in sports teams reviewed in great detail, and such approaches are common in manufacturing. We therefore believe it is most appropriate to investigate the issues around junior doctor changeover by considering individual-level data on actual staff behavior.

The use of interconnected smart devices and electronic records is on the increase in hospitals. Such development supports the increasing need for greater efficiency, transparency, and documentation of clinical activity. The data these systems generate are a rich resource for studies of individual behavior (eg, the study by Blakey et al3) and intermediate phenotypes and can serve as a platform for additional research tools such as high-fidelity indoor positioning.4,5 Many centers are therefore in a position to undertake studies of clinical activity using augmented routine data.

Research into workflow and staffing in secondary care has the potential to lead to significant improvement in clinical outcomes, training, and costs. It is therefore appropriate that this area benefits from the application of a wide range of research tools to better understand the nature of the challenges that exist. We hope that the medical community will seize the opportunity to leverage subtask-level clinical data to build on existing results from large-scale studies with broad end points.

Disclosures

None.

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References


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