

Briefing Sheet

“Weekend specialist intensity and admission mortality in acute hospital Trusts in England: a cross-sectional study”

Aldridge, Bion et al; HiSLAC Collaboration

The Lancet: [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(16\)30442-1/abstract](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(16)30442-1/abstract)

Synopsis:

The UK Department of Health has attributed the increased mortality associated with weekend hospital admission to insufficient senior doctors working weekends. We show that although consultant involvement in emergency admissions at weekends is lower than on weekdays, we do not detect an association between hospital specialist weekend staffing and weekend emergency admission mortality risk. Policy makers implementing seven-day services should be cautious about attributing the ‘weekend effect’ solely to a lack of consultant staff.

Background

Existing research has shown that mortality rates are higher for patients admitted to hospitals at weekends compared with weekdays. The cause of this ‘weekend effect’ has been attributed to reduced medical specialist (consultant) staffing of hospitals at weekends, but the evidence to support this is elusive. The High-intensity Specialist-Led Acute Care (HiSLAC) project addresses this evidence gap.

Key Findings

The Lancet paper represents a cross-sectional analysis of the difference in weekend/weekday admission mortality rates with the difference in weekend/weekday senior doctor staffing. It is the first report from the initial phase of HiSLAC, an independent five-year study, and, we believe, the first report of weekend-weekday specialist staffing differences in a healthcare system.

We found that:

- Patients admitted as emergencies to English hospitals on a Sunday collectively receive, on average, less than half the input from specialists of patients admitted on a Wednesday. In terms of numbers of specialists present and attending to these emergency patients, substantially fewer specialists (27.3%) were present providing care on Sunday compared to Wednesday.
- Weekend admission mortality risk was higher than weekday (10% relative risk increase).
- However, we did not detect an association between hospital specialist weekend staffing and weekend emergency admission mortality risk:

The absence of an association in this preliminary study is not conclusive. A longer term study (such as the full, five year life span of HiSLAC) may yet confirm that the weekend effect can be linked to an insufficient presence of specialists. However, these findings suggest the need for caution in attributing the weekend effect primarily to lack of consultants at weekends.

Methods in Brief

HiSLAC asked consultants and specialists to complete a short anonymised survey to contribute to a nationwide 'snapshot' of care provided for emergency hospital admissions. More than 15,500 consultants and associate specialists from 115 eligible NHS Trusts told us whether they delivered direct care to patients admitted as an emergency on two given days: Sunday 15th and Wednesday 18th June 2014. We defined consultant/specialist as a doctor who has obtained a certificate of completion of specialist training (CCT). The survey was distributed by each Trust to all consultants, including physicians, surgeons, anaesthetists, intensive care specialists, radiologists, microbiologists, pharmacologists and pathologists amongst others.

These findings have been analysed together with hospital episode statistics (HES) data for 2013-14 to calculate admission mortality risk, taking into account patient characteristics like age, diagnosis and chronic disease. We focused on comparing weekends with weekdays within each hospital rather than absolute levels of weekend mortality and specialist intensity to minimise the effects of differences in patient populations and types of services being offered.

What is HiSLAC?

These findings are from the first phase of a five-year study. HiSLAC ('High-intensity Specialist Led Acute Care') is an independent research collaboration funded by the National Institute of Health Research Health Service and Delivery Research Programme (NIHR HS&DR) and based at the University of Birmingham. HiSLAC is supported or endorsed by NHS England, NHS Confederation, Academy of Medical Royal Colleges, College of Emergency Medicine, Society of Acute Medicine, Royal College of Physicians, Faculty of Intensive Care Medicine, Royal College of Anaesthetists, University Hospitals Birmingham NHS Foundation Trust, the Universities of Birmingham, Leicester and Warwick and by the leadership of 127 NHS Trusts in England.

Additional Information

- For the full findings and methodology, please read the paper in full by following the link at the head of this document.
- For more information and updates on HiSLAC visit the website www.hislac.org or follow us on Twitter @HiSLACProject
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