

Briefing Sheet

The magnitude and modifiers of the weekend effect in hospital admissions: a systematic review and meta-analysis

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Background

Hundreds of studies examining the weekend effect in different clinical areas from around the world have now been published but few had gone beyond describing the quantitative estimates to explore the underlying causes and influencing factors. However, understanding underlying causes is crucial for health care providers, policy makers and patients in order to take actions to explore solutions for this “apparently ubiquitous effect”.

We selected 68 research studies - covering 640 million patient admissions - to examine the magnitude of the weekend effect and the factors that influenced it. For this paper, the weekend effect was defined as differences in patient outcomes between weekend and weekday hospital admissions. The paper gives a better insight into a ‘weekend effect’ by not just focusing on mortality but also taking into account adverse events, length of stay and patient satisfaction.

Key findings:

- In the studies we examined, weekend admission is associated with a 16% increase in the risk of death compared to weekday
- However, the magnitude of the effect varies by different types of admissions, case mix and illness severity, geographic location, and contextual and methodological factors
- This inconsistency would suggest that ‘the weekend effect’ is not a good measure of care of quality in hospitals at weekends.
- Future research must attempt to examine the broader issues related to the whole care pathway both within and outside the hospital and consider the experience of patients, carers and care providers.

Methods in Brief

The team searched academic article databases from January 2000 to November 2017. To be eligible for our review, the studies had to meet certain criteria including being primary research studies published in peer-reviewed journals and not focussing on specific conditions.

What is HiSLAC?

These findings are from the final 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 detailed findings please read the paper in full by following the link at the head of this document.
- For a more information on the methodology, please see the protocol published here: <https://systematicreviewsjournal.biomedcentral.com/articles/10.1186/s13643-016-0260-2>
- For more information and updates on HiSLAC visit the website www.hislac.org or follow us on Twitter @HiSLACProject.