

CLAHRC BITE Brokering Innovation Through Evidence

22 A bite-sized summary of a piece of research supported by NIHR CLAHRC West Midlands

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

Mortality risk of emergency admissions at the weekend

Background

- A key policy for the UK Government and the English NHS is a seven-day health service.
- Previous research has shown a '*weekend-effect*' – an increase in mortality associated with weekend admission.
- This has been widely attributed to low levels of specialist consultants, but without evidence of causation or the extent of the deficit.
- A survey was distributed to hospital trusts to collect data relating to the care of emergency admissions and specialist workload.
- For each trust, the *weekend to weekday admission risk of mortality* was compared with the *Sunday to Wednesday specialist intensity ratio* (these days are associated with the highest and lowest admission mortality risks).

Findings:

- Data was obtained from 115 hospital trusts and 15,537 clinicians.
- On Sunday, there were substantially fewer specialists providing care to emergency admissions (11%) than on Wednesday (42%).
- Those specialists present on Sunday spent 40% more time caring for emergency patients than those present on Wednesday (5.7 hours vs. 4.0 hours).
- However, on average, emergency admissions on a Sunday collectively receive less than half the input from specialists compared with those admitted on a Wednesday.
- Mortality risk among patients admitted at weekends was significantly higher than among those admitted on weekdays (odds ratio 1.10 (1.08-1.11), $p < 0.001^*$).
- There was no significant association between weekend staffing of hospital specialists (the Sunday to Wednesday specialist intensity ratios) and mortality risk for emergency admissions (the weekend to weekday mortality ratios) ($p = 0.654^*$).

* *There is a significant difference if the p-value is < 0.05 .*

Reference

Aldridge C, Bion J, Boyal A, et al. Weekend specialist intensity and admission mortality in acute hospital trusts in England: a cross-sectional study. *Lancet*. 2016. [ePub]. <http://goo.gl/jQzdSN>



Recommendations for Practice

Policy-makers must exercise caution before attributing the weekend effect to a single component, such as differences in specialist staffing, in a complex system. We cannot assume that more specialists will fix the problem of the weekend-effect.

What is NIHR CLAHRC West Midlands?

The Collaboration for Leadership in Applied Health Research and Care (CLAHRC) is a partnership between universities (Birmingham, Warwick and Keele) and a number of health and social care organisations in the West Midlands. We are funded by the National Institute for Health Research with a mission to undertake high-quality applied health research focused on the needs of patients to improve health services locally and beyond. For further information, visit:

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