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.

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.

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Reference


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