

# Emergency admissions death toll significantly higher on public holidays

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Patients admitted to hospital as emergencies on public holidays are significantly more likely to die than those admitted on other days of the week - including weekends - indicates research published online in *Emergency Medicine Journal*.

International evidence suggests that the death rate among emergency admissions is around 10% higher at weekends than it is for other days of the week, which adds up to around 3000 extra deaths every year in England alone.

The authors wanted to find out if similar patterns were evident for patients admitted to hospital on public or bank holidays.

They therefore looked at seven and 30-day [death rates](#) among patients admitted as emergencies to one district general hospital in Scotland between January 2008 and December 2010.

The hospital in question, which is the only district general hospital in the region, serves a population of 150,000 people, and admits 6700 patients as medical emergencies every year.

During the study period, just over 20,000 people were admitted as emergencies to the medical unit. Three-quarters (77%) were admitted during the week, with the remainder admitted at weekends.

Some 5.6% of these admissions occurred on public holidays, which, with the exception of 1st and 2nd January 2008, were part of a three or four day holiday period.

Patients admitted at weekends were slightly older, less likely to have cancer, and more likely to have a respiratory problem. Those admitted on public holidays were also more likely to have a respiratory problem. But otherwise there were no distinctive differences in the caseload.

In all, 771 patients (3.8%) died within seven days

of admission, while 1780 (8.9%) died within 30 days. After taking account of factors likely to influence the results, death rates were only slightly higher at weekends.

But they were significantly higher for public holiday admissions - on weekdays and weekends - than for other days, the analysis showed.

Some 5.8% of patients died within seven days compared with 3.7% of those admitted on other days of the week, while 11.3% died within 30 days compared with 8.7% of those admitted at other times.

This means that patients admitted as [medical emergencies](#) on public holidays were 48% more likely to die within seven days and 27% more likely to do so within 30 days.

There were no differences in senior doctor staffing between normal weekends and weekdays at the hospital - a factor frequently cited to explain the differences in death rates between weekends and weekdays.

But public holidays are usually tagged on to a weekend, providing a three or four day holiday, resulting in what the authors refer to as a "cumulative effect."

"If we assume that patients with severe illnesses are no more likely to be admitted on any one day of the week than any other, then it becomes difficult to escape the view that a cumulative effect of lack of services and/or lack of doctors on public holidays must have a part to play in the higher public holiday mortality demonstrated in this study," they conclude.

**More information:** Emergency medical admissions, deaths at weekends and the public holiday effect. Cohort study, Online First, [doi:10.1136/emered-2012-2-1881](https://doi.org/10.1136/emered-2012-2-1881)

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