

EDITORIALS



Weekend Worriers

Donald A. Redelmeier, M.D., and Chaim M. Bell, M.D., Ph.D.

Clinicians strive to provide care to patients every day of the week. Doing so entails effort, and people who work in hospitals (unlike those in many other lines of work) are not always compensated for taking the weekend shift. Casual observations of hospital parking lots suggest that staffing shortfalls may prevail, indicating that the intensity of medical care on weekends does not match that provided on other days of the week.

The shortfall of weekend medical care is important because the consequences of adverse events cannot always be offset by working harder on subsequent days. For example, treatment of myocardial infarction with accelerated tissue plasminogen activator reduces the percentage of patients left with regional wall-motion defects (71% vs. 81%, $P < 0.001$).¹ If the patient dies on the weekend, no heroics on Monday will suffice.

Research using large databases has shown surges in adverse events on weekends. In one study, the mortality rate for 23 of the 100 leading causes of death was significantly increased with weekend admission.² No disease showed the opposite pattern. The increases were somewhat higher for patients with cancer than for those with heart disease. In most instances, the relative increase in mortality was not large.

Studies of weekday versus weekend care conducted in specific hospital settings have shown varied results. Some studies in adult intensive care units,³ but not all,⁴ have shown an increase in weekend deaths. Most studies in neonatal intensive care units have shown no increase.^{5,6} Studies of single diagnoses suggest worse outcomes from weekend care for some patients with stroke, hip fracture, or myocardial infarction.⁷⁻⁹

In this issue of the *Journal*, Kostis et al.¹⁰ report that patients with myocardial infarction ar-

iving at the hospital on weekends are one third less likely to receive percutaneous coronary intervention (PCI) on admission than patients who arrive on weekdays. If PCI yields a 15% increase in survival, then the reduced use of PCI on weekends might explain the observed 5% increase in mortality associated with weekend admission. Of course, the effectiveness of PCI can vary, and other factors also contribute to outcomes.

In randomized trials, PCI has been found to yield an increase of about 30% in survival as compared with thrombolysis.¹¹ Such large effects are often observed in trials because of special funding — well-funded trials reveal how treatments work under optimal rather than customary conditions.¹² Such trials, for example, are typically staffed by teams working hard to provide care on weekends and holidays.

The reason for conducting research on weekend care is to determine whether the quality of hospital care can be improved by policies that increase staffing on weekends for select critical services. One strategy would be to add premiums to Medicare reimbursement for weekend treatment of heart attacks. Such premiums have been standard for decades in Canada and are not overly cumbersome or extravagant.

The premiums do need to be sufficiently attractive, of course. In Ontario, for example, one of the weekend special-visit premiums has increased by about 63% over the 6 years since we published our original article² on weekend hospital care (\$33.40 to \$54.55 [Canadian dollars]). These fees indicate that health care payers could still take the shortfall in weekend care more seriously.

Nursing and other allied professionals often form unions, yet collective bargaining does not necessarily lead to large weekend premiums. The

Ontario Nurses' Association agreement, for example, lists a weekend premium of \$1.70 per hour,¹³ equal to a relative increase of less than 10%. This fixed premium may seem especially modest to senior nurses earning \$36.52 per hour.

Serious incentives for hospitals will not solve the entire problem because some gaps reflect issues elsewhere. For example, long-term care institutions often do not admit patients on weekends, thereby delaying hospital discharges and tying up clinicians along with other overlapping hospital resources. Completely eliminating shortfalls in weekend care outside of emergencies, therefore, might require widespread societal changes.

Companies in nonmedical industries with large fixed overheads (e.g., oil refineries) can often be run efficiently 7 days a week even if employees are paid double-time on weekends, are given some weekday time off, and are allowed to develop creative schedules. In comparison, the alternative of increasing production by purchasing more equipment is far less economically attractive. Whether health care is like gasoline production, however, remains a topic for future economic research.¹⁴

An awareness of shortfalls in weekend hospital care has implications for patients regardless of economic policy. First, patients who feel unwell during the week should not wait to see whether they feel better during the weekend. Second, if they are unsure of how sick they may be, they should contact their doctor by Friday, when staff are more available. Third, if patients are hit by an emergency on the weekend, they should go to the hospital; patients who sustain a heart attack, for example, are far safer receiving weekend hospital care than staying at home.

The article by Kostis et al. shows that there is a specific way to improve cardiac care in hospitals: provide better treatment for acute myocardial infarction on weekends. This is a practical insight that should motivate change. Other patients might benefit if colonoscopy, ultrasonography, and other elaborate services were more available on weekends.¹⁵ The goal is to improve patient care yet avoid excessive demands on clinicians and unaffordable premiums for payers.

Both authors are practicing clinicians in Ontario, Canada, and have benefited financially from weekend premiums in fee-for-service care.

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From the Departments of Medicine and Health Policy Management and Evaluation, University of Toronto; the Clinical Epidemiology and Health Care Research Program and the Patient Safety Service, Sunnybrook Health Sciences Centre; the Institute for Clinical Evaluative Sciences; and the Division of General Internal Medicine, St. Michael's Hospital — all in Toronto.

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