

# In and out in four hours: The effects of the four-hour emergency department target on patients, hospitals and junior doctors

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### Introduction

In the eyes of the general public, a hospital's Emergency Department (ED) is synonymous with overcrowding and tedious waiting. Keen to change this, last year, at the meeting of the Council of Australian Governments, the states ratified a National Partnership Agreement on health reform. One controversial outcome of this agreement was the four-hour National Access Target (NAT), which requires that all patients that present to EDs will need to be admitted, discharged or referred within four hours, if clinically appropriate. [1-3]

The new targets are currently being phased in, beginning with life-threatening triage 1 cases, but the true impact of the plan is unlikely to be felt until 2015, when non-urgent triage 5 cases will also be required to meet the target. Under the terms of the agreement, if 95% of patients within a particular Australian state are seen within the four hour target, that state will be awarded extra funding out of a national pool of \$250 million over the next four years. [2]

The introduction of the NAT has been met with several questions. Does putting a time limit on patients in the ED jeopardise their safety due to rushed management decisions? Is it realistic that this target can be met when there are so many factors impeding efficient patient assessment? How will you be affected when you work against the clock in the coming years?

### Problems with the NAT

Although the changes recognise the relationship between prompt treatment and better patient outcomes, the plan risks setting quantitative goals without respect to qualitative goals by forcing under-staffed emergency departments to work at an even faster pace, potentially jeopardising patient outcomes. Of concern, the four-hour plan underwent drastic modification in the United Kingdom (UK), due to concerns over patient safety. There, standards have been expanded to include eight indicators. Of the eight, only three are time-based measures, including total time in the ED. [4]

Jones & Schimansky [5] conducted a systematic review of the effects of the four-hour target in UK hospitals, and found that National Health Service spending on ED increased £820 million (1998–2007) and emergency admissions rose overall by 35% (2002–2006). Two of their most significant findings were that both time to see a treating clinician and hospital mortality remained unchanged. They also concluded that “the impact of the introduction of an ED time target and the associated massive financial investment has not resulted in a consistent improvement in care with markedly varying effects being reported between hospitals.” [5]

### Positives of the NAT

To the general public, the major benefit of the plan is patient satisfaction derived from shorter waiting times; however this is not as clear-cut as it seems. If a shorter waiting time is accompanied by a shorter, more abrupt consultation, will patients be more satisfied?

One major benefit of the four-hour plan is it will ultimately require



streamlining of the entire hospital system so it runs more efficiently. For example, delays in admission, imaging, pathology and consults will all need to be minimised, meaning that the NAT could be a catalyst of change for the entire hospital, not just the ED.

After conducting interviews with UK emergency physicians, Hughes [6] argued that some physicians felt that the “target gave a focus and was beneficial to EDs. It gave an incentive to improve as there was no system driver for change before its introduction.” To dismiss the four-hour target entirely would be to neglect an area of medical care needing improvement - known as access block - patients who are not seen within eight hours.

The primary reason for access block is bed shortage. [7] Patients who need to be admitted often have to wait in the ED until a bed becomes available ‘upstairs.’ This patient occupies a bed in the ED, which thereby prevents another patient in the waiting room from being assessed. It is therefore hoped that a four-hour target will drive administrators and politicians to address the chronic bed shortage that afflicts many hospitals.

The expert panel review of emergency access targets reviewed the proposal in June 2011 and recommended that “targets must drive clinical redesign with a whole-of-hospital approach. Rather than an end in themselves, the emergency department and elective surgery targets are a tool to drive process and systemic change and a measure against which to monitor progress.” [8]

### Barriers to the NAT

Currently, not all patients are seen within the existing target of eight hours. For example, one major Sydney hospital, the primary teaching site for one author of this article, sees only about 70-85% of patients within the 8-hour period. If this is the case, how will it be possible to have seen and assessed 95% of patients in half that time? The rapidity of patient assessment and subsequent management is a function of the numbers of patients, staff and available beds, both in the ED and in inpatient wards. In fact, bed shortage was seen as the primary reason for failure to meet four-hour targets in the UK. [9] Unless the number of staff and beds both increase, it seems unlikely that a four-hour

target can be safely met without making sacrifices to patient care.

Furthermore, it is not just ED staff who are responsible for meeting this time limit. Inpatient teams often need to assess the patient prior to their admission, and despite being seen rapidly by ED staff, the patient may still await the services of a medical or surgical team.

### Junior Doctors

The biggest concern is that linking quantitative targets to hospital funding potentially encourages staff to discharge patients inappropriately. There is a grey area between patients who require medical monitoring and those who can be followed up by their GP. Whilst it is unlikely that grossly negligent decisions to discharge will arise from the four-hour target, it is likely that the more subtle judgements will fall in favour of discharge. When the UK's National Health Service (NHS) conducted a survey of staff opinion on the four-hour target, 57% (193 out of 336 respondents) reported that patients were being discharged from ED before they had been adequately assessed to inappropriate areas or wards. [10]

The four-hour target has major ramifications on future interns and residents, who may lack the seniority to insist on the admission of a patient, and may be particularly pressured to prematurely discharge a patient. In many city hospitals, it is an expectation that junior doctors are required to see one patient per hour. This in itself is a reasonable challenge, as it includes the time taken to conduct a history and examination, as well as reading the medical records, contacting the GP for medical records and other menial but necessary tasks. Junior doctors are in the process of developing the skills of clinical judgement to organise the next step of a patient's care and navigate a complex hospital system, which is difficult enough, let alone in the face of timed targets. Time constraints will also reduce the time available for teaching from senior staff. Ideally, junior doctors should learn how to use the hospital system to meet their clinical judgement, rather than amend their clinical judgement because of a requirement of the hospital system.

### Rural and Remote Australia

Rural and regional hospitals carry several additional burdens which may make it harder to reach such targets. Rural patients may have travelled several hours to reach a hospital and, when it comes time to discharge, although their clinical picture may be sound, it may not be safe for them to travel home. Hence, such patients may remain overnight in EDs out of respect to their safety, rather than the need for on-going medical care. Moreover, rural and remote patients may wait several hours for air or road transfer to a tertiary hospital, and therefore occupy an emergency room consultation room or bed. These are legitimate needs but fall outside of the four-hour target. An appropriate strategy would be to supply space and staff for patients who are in transit or who are waiting until daylight to travel home.

### Data manipulation

Data manipulation of the four-hour target is also an issue. The British Medical Association survey reported that 31%, or 147 out of

### References

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471 respondents, reported that data manipulation was used as an additional measure to meet emergency access targets. [10]

When a patient presents to an ED, there are three options: discharge, admit, or refer. Referral ideally means consultation with, treatment from, and admission under a specialist medical team for definitive management. Whilst not strictly manipulating the target, referral to a surgical or medical assessment unit (MAU) will count as successfully meeting the four-hour target despite the patient not necessarily having been seen by the appropriate inpatient clinician. Furthermore, transfer of a patient to an assessment unit would actually contradict the principle of the NAT, which is to transfer patients when it is clinically appropriate to do so.

### Solutions

Given the rapidly increasing number of medical graduates, some of us may miss out on prompt admission to the specialty of our choice. One possibility would be to encourage a decent portion of us to consider a path in emergency medicine. Part of this would be to create an academically and professionally supportive environment during internship and residency, and the consideration of additional financial incentives to work in this field.

EDs form one component of a plethora of acute-care services. While emergency physicians handle triage 1 scenarios such as myocardial infarcts and trauma, they also shoulder some of the burden of community medicine after hours. It is these cases which will test the four-hour limit the most. Two promising solutions are sporadically available across Australia: late night GP clinics, and "fast track" clinics within emergency departments. These clinics, often staffed by GPs, seek to divert less urgent cases away from emergency physicians proper, free up resources for more precarious cases and provide prompt service for patients that would normally wait hours to see a doctor.

However, as Richardson and Mountain point out, [11] the principle cause for overcrowding in EDs is actually access block - the delay in transferring a patient to appropriate definitive care. As such, ED waiting times reflect the interrelationship between emergency and specialist departments. Management of patient flow as a whole is what is truly likely to influence emergency waiting times.

The aim of a four-hour target is laudable and well-intentioned, but it should not be seen purely as a measure of the efficiency of the health service. It must be viewed as a driver of change, as a means rather than an end. We should not define success by the clock, rather we should be analysing patient outcomes, and the functioning of the entire hospital, not just the ground floor.

Implementation of the four-hour target carries with it a number of risks. It is of particular concern to us as future interns who may have to cope with increasing demands, leading to rushed decisions which may carry the potential of harm to the patient. Patient outcomes are the ultimate endpoint of this strategy, and of this, waiting time is only a solitary component.

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