

Oxygen saturation: a crucial “vital sign” being neglected

To the Editor:

Since the 1980s the ability to estimate the saturation of oxygen in peripheral blood (SaO_2) relatively accurately and non-invasively has become a standard in assessment of a patient's ability to supply oxygen to the tissues.¹ SaO_2 essentially represents the ability to assess the end product of the pulse, blood pressure and respiratory function, and has been found to be more reliable than respiratory rate in screening for hypoxia.² With its ease of procurement, the SaO_2 might be considered the newest and, arguably, most important, “vital” sign.^{3,4}

In an audit of the clinical records of 867 patients discharged with an ED diagnosis of “pneumonia” (714) or “possible pneumonia” (153), over a 2-year period (Jan. 3, 1999 – Jan. 3, 2001), we found that the SaO_2 of the patient was not recorded anywhere on the clinical record in 17.9% (155) of cases, despite a policy for it to be recorded at triage, and during the nursing assessment, with a space on the assessment form dedicated to the SaO_2 measurement at each stage. By contrast, the other “vital signs” were recorded in over 99% of cases.

It is disturbing that a patient could be discharged with a diagnosis of a potentially seriously respiratory illness without this basic and potentially critical measurement being recorded. We wonder if other centres have identified this as a problem.

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Ambulance diversion and ED overcrowding

To the Editor:

The 2 related articles^{1,2} on ED overcrowding in the March 02 issue of *CJEM* are highly interesting and relevant to Australian emergency medicine clinicians and managers. Most of the same issues, problems, misconceptions and proposed solutions are reflected here.

Like Schull's group,¹ many of us have sought a consistent and meaningful definition of ED overcrowding. Schull's proposed definition — that of the requirement to invoke ambulance diversion — has presented problems for EDs in my region (New South Wales, Australia) over several years.

Using similar logic to Schull's group, it had been assumed that ambulance diversion is a reasonable (and reproducible) surrogate for ED overcrowding. In an attempt to improve the situation for EDs, our regulators and funders have used this definition as a performance measure for hospitals in incentive/disincentive schemes. Although this has produced some motivation to improve bed management, the result has also been to create perverse incentives not to divert ambulances.

Over time, each institution has de-

veloped different thresholds for the trigger to divert. Different responses are required if the overcrowding is predominantly due to inpatient bed access block or to an influx of new ED patients.

Many EDs, after years of working in dangerous conditions, have also chosen to eliminate corridor beds and only manage patients in designated treatment spaces. The result of this, combined with avoiding ambulance diversion, is that ambulances frequently wait at the ED entrance for some time — perhaps hours — before they are able to unload their patients.

As a result, ambulance unloading times are now being proposed as a more realistic measure of ED overcrowding. There is also current discussion about creating logical guidelines for prehospital diversion initiated by the ambulance service, for patients assessed as being safe to travel to a hospital with greater capacity, perhaps bypassing the nearest facility. This will require frequent and accurate communication of acute hospital capacity to the ambulance coordination centre.

I therefore advise caution in the use of ambulance diversion as a definition of ED overcrowding, and would welcome trans-Pacific collaboration in trying to solve this most frustrating issue in both our health systems.

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