In brief

Scott Olson/Getty Images

Workers and guests at the World's Finest Chocolate company in Chicago, USA, look at a 5529 kg chocolate bar they created to set a new Guinness World Record last month. At nearly 70 m long, the chocolate bar is far bigger than the previous record holder. It contains approximately 121 638 000 kJ — hopefully these workers don't eat it all at once or it could also inspire some new obesity records.

From the Australian Commission on Safety and Quality in Health Care

Clinical deterioration in hospital patients: recognition and response

How well is Australia managing to look after patients whose condition deteriorates in hospital? This is the subject of a recent national survey by the Australian Commission on Safety and Quality in Health Care (ACSQHC). The survey involved more than 200 Australian hospitals, including small, regional and private facilities.

It has been known for over 20 years that properly recognising and responding to clinical deterioration in hospital patients presents a challenge. Australia has led the way internationally in this area. However, patients still die in hospital because their clinical deterioration is not identified or treated in time. This happens when hospitals do not have appropriate systems of care to attend to these patients in a timely manner.

Effective solutions need to consider the whole of a hospital's operations to achieve three things:

- doctors and nurses need to recognise clinical deterioration when it occurs to ensure that patients receive the required care at the right time;
- hospital staff must have the capacity to escalate care if needed;
- patients should receive specialist emergency assistance when required, and this requires a comprehensive system-wide approach.

Focusing on only one part of the hospital, or on one part of the recognition and response process, leads to less effective care.

The ACSQHC results indicate that, in the past 20 years, most Australian hospitals have put in place systems for recognising and responding to clinical deterioration, but there is still work to do. The survey showed that most hospitals had basic recognition systems (eg, policies for taking observations and protocols for escalating care). However, more sophisticated processes (eg, early warning scores or track-and-trigger systems) were less common. Smaller hospitals and those in rural and remote areas tended to be less likely to have formal systems in place for recognising and responding to clinical deterioration in patients.

In assessing rapid response, the survey found that two-thirds of hospitals had a system in place for providing emergency assistance to patients whose condition was deteriorating, although different strategies were employed. Over half of these systems were based outside intensive care units, and involved high dependency and coronary care units, surgery and anaesthetics. In some cases, the rapid-response system was a hospital-wide response. A quarter of hospitals had an external rapid-response system involving local general practitioners, ambulance services and visiting medical officers. But which of these systems work best for a given hospital?

A lot of good work has been done, but there is scope for considerable improvement. Recognising and responding to clinical deterioration has been identified as a national safety and quality priority, and there are now opportunities to further improve systems to ensure that patients experiencing clinical deterioration receive the care they need. A report with results of the survey is available on the Commission's website (http://www.safetyandquality.gov.au).

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doi: 10.5694/mja11.s1003

Research end points often mislead

The selection of end points in medical research has a huge impact on whether an intervention appears to be beneficial or harmful. A risk factor for a disease may be selected as a surrogate end point in a study rather than waiting years for the true end point, which may be death or other serious events (eg, blood pressure as a risk factor for stroke). However, demonstrating an effect on the surrogate end point (eg, reducing blood pressure) may not reflect the actual impact of the intervention on the disease outcome.

A new study has analysed the use of end points that may make data interpretation difficult in all randomised medication trials published in the six highest-impact medical journals — *New England Journal of Medicine, JAMA, The Lancet, Annals of Internal Medicine, BMJ* and the *Archives of Internal Medicine* — between June 2008 and September 2010.

Of 316 medication trials, 116 (37%) used a surrogate primary end point and 106 (34%) used a composite primary end point (which can be problematic if two end points of unequal clinical importance are combined, such as hospitalisation and mortality). Among 118 trials in which the primary end point involved mortality, 32 (27%) used disease-specific mortality rather than all-cause mortality.

"Patients don't care if a medication prevents deaths from heart disease if it leads to an equivalent increase in deaths from cancer", said lead author Dr Michael Hochman, of UCLA's division of general internal medicine.

The researchers acknowledged that these end points are appropriate in some studies, particularly early phase studies. However in the advanced phase studies considered by this research, these end points may produce results that are misleading or confusing.

The research also found that trials using surrogate end points and disease-specific mortality were more likely to be exclusively commercially funded.

J Gen Intern Med 2011; 15 August (online)

Lifestyle cuts stroke risk

Simple healthy lifestyle factors make a big difference when it comes to stroke prevention, according to a prospective study which followed a cohort of 36 686 Finnish people for an average of 13.7 years.[1] The researchers found a graded association between adherence with five lifestyle factors (light/moderate alcohol consumption, normal BMI, moderate/high physical activity level, never smoking and vegetable consumption at least three times a week) and risk of stroke. The multivariate-adjusted hazard ratios associated with adherence to 0 to 1 (reference group), 2, 3, 4 and 5 healthy lifestyle factors were 1, 0.66, 0.57, 0.51 and 0.33 for total stroke respectively. The researchers found that alcohol consumption had a J-shaped association with stroke risk, such that light to moderate drinkers had the lowest risk of stroke.

Another recent prospective cohort study looked at the association between consumption of fruit and vegetable colour groups and stroke risk over a 10-year follow-up.[2] People who had a high intake of white fruits and vegetables such as apples and pears had a 52% lower risk of stroke.

1. *Arch Intern Med* 2011; 12 September (online)
2. *Stroke* 2011; 15 September (online)

Smoke and mirrors

A qualitative study has found that patient perceptions of antismoking advice from doctors vary considerably, with some patients lying to their doctors or avoiding them altogether due to antismoking discussions. One female patient said: "I wanted to lie because I didn't want to let her down, 'cause I respect her as a doctor". The research, which focused on patients who had been hospitalised due to acute coronary syndrome, found that patients felt stigmatised by health professionals. "Ongoing smokers described feeling as though their identity as a smoker was the only thing that doctors noticed about them", the researchers wrote. There was a widespread preference for doctors who could speak about smoking from some personal perspective, whether they used to smoke or had a relative who smoked. The study also found that many participants spoke about cigarettes as though they were "a close friend". The researchers suggested that doctors should allow patients to express the important role that smoking plays in their lives as part of an ongoing dialogue about smoking.

Aust J Prim Health 2011; 17: 268-273

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doi: 10.5694/mja11.n1003

From the MJA archives

MJA 1931; 10 October

Comment: Functional disorders of the colon

The colon is a much abused viscus. On the one hand are those people who hold it responsible for all man's ills, and who perhaps scourge it with frequent purgation; on the other are those who insult it by keeping it overloaded with scybalous contents.

No doubt the medical practitioner often feels he has little time for attention to the neurotic person who is habitually steeped in colonic meditation; but this person requires attention, for his physical, as well as his mental, condition.

Functional disorders of the colon usually result from the bad habits of a nervously predisposed person; thus they can often be prevented by the institution of ordinary hygienic measures, such as regular meals, exercise and sleep.

It has been remarked by more than one authority that, in the prevention of constipation of children, a little wholesome neglect is of greater value than medicine and solicitous instruction, both of which may assist the development of an unhealthy mental attitude. The same may be said of the grown man and woman.