

Professor Jed Duff
PhD, RN, FACORN
Editor, Journal of Perioperative
Nursing
Professor, School of Nursing Faculty
of Health, Queensland University of
Technology Nursing and Midwifery
Research Centre, Royal Brisbane and
Women's Hospital
journaleditor@acorn.org.au

It's time for the perioperative community to recommit to the WHO Surgical Safety Checklist

For over a decade, the World Health Organization (WHO) Surgical Safety Checklist has been recognised as an essential perioperative safety tool.

The first landmark multi-national study demonstrated a remarkable 47 per cent reduction in mortality and a 36 per cent reduction in surgical complications, which was confirmed in subsequent studies. Although effective in a research environment, the checklist has been challenging to implement. Today, hospitals worldwide still struggle to use the checklist as designed and maintain enthusiasm for its sustained use. Is it time for the perioperative health care community to revisit the checklist and recommit to safer surgery?

The WHO developed the checklist as part of its Global Patient Safety Challenge. This Safe Surgery Saves Lives program brought together surgeons, anaesthetists, perioperative nurses, infection control experts, patient advocates and human factors engineers to identify opportunities to improve the safety of surgical care. Although checklists were not new to the field of safety, or even medicine, it was a novel (and some might say overdue) innovation in surgery.

In Australia, the checklist was launched to much fanfare by the Minister of Health at an event held in Canberra attended by representatives of all the major surgical professional bodies. Royal Australasian College of Surgeons (RACS), Australian and New Zealand College of Anaesthetists (ANZCA), Australian College of Perioperative

Nurses (ACORN) and other colleges and associations went on to enthusiastically endorse the checklist, which was adopted as the standard of care.

I recognise the Surgical Safety Checklist as a turning point in my career. As a freshly minted clinical nurse specialist, I was given the task of implementing the checklist into a large metropolitan hospital. I can honestly say that the mission was a complete failure. I vividly remember a prominent surgeon standing nose to nose with me, challenging the need for 'experienced professionals' to complete a safety checklist. Ironically, this surgeon had attended the launch of the checklist in Canberra, where his college had endorsed it. I remember being astonished by how difficult it was to implement. My manager was more than astonished; she was infuriated that I had failed, given the three supernumerary days she had provided me.

More than a decade later, and after completing a PhD in implementation science, I still struggle to ensure consistent and reliable use of the checklist in practice. My only comfort is knowing that adoption has been inconsistent around the globe. The European Surgical Outcomes Study reported wide variation in checklist use. Denmark, France, Ireland, the Netherlands and the UK had near 100 per cent compliance, at the same time Croatia, Cyprus, Czech Republic,

Estonia, Greece, Hungary, Latvia, Lithuania, Poland and Slovakia had only 30 per cent or lower.¹ The GlobalSurg Consortium estimates that compliance with the checklist is approximately 50 per cent in middle and low-income countries.² This is similar to the African Surgical Outcomes Study with checklist use reported in 57 per cent of surgical procedures.³

In Australia, a study conducted at 11 hospitals across four states found a significant discrepancy between what was documented (86% compliance) and what was observed (27% compliance).⁴ Although my facility was not a site in this study, the results ring true. Poor implementation has exacerbated the discrepancy between documented and actual practice. For example, many facilities have made it essential to complete the checklist in the electronic medical record before the case notes can be viewed – this is referred to as a forcing function. An unintended consequence of this forcing function is that busy nurses complete the checklist in advance,

often well before the patient enters the room. This results in 100 per cent compliance on computer-generated reports but significantly less compliance in reality.

A checklist is a communication tool that provides a structured approach to assessing and communicating safety among the perioperative team. However, the mere presence of a checklist in the medical record does not improve safety. The checklist must be used with a high degree of consistency and reliability to be effective. Achieving this requires careful planning and strategic implementation, something that was missing from the 2009 rollout. Thankfully, the team who led the checklist development, under the direction of surgeon Atul Gawande, has developed an implementation guide⁵ based on the lessons learned from over 4000 facilities globally. The guide is freely available at www.SafeSurgery2015.org.

I urge you to use the guide to reimplement the checklist in your facility. Let's all recommit to safer surgery!

References

1. Jammer I, Ahmad T, Aldecoa C, Koulenti D, Goranović T, Grigoras I et al. Point prevalence of surgical checklist use in Europe: Relationship with hospital mortality. *Br J Anaesth*. 2015;114:801–7.
2. GlobalSurg Collaborative. Surgical site infection after gastrointestinal surgery in high-income, middle-income and low-income countries: A prospective, international, multicentre cohort study. *Lancet Infect Dis*. 2018;18:516–25.
3. Biccadd BM, Madiba TE, Kluyts HL, Mumlemvo DM, Madzimbamuto FD, Basenero A et al, African Surgical Outcomes Study (ASOS) investigators. Perioperative patient outcomes in the African Surgical Outcomes Study: A 7-day prospective observational cohort study. *Lancet*. 2018;391:1589–98.
4. Giles K, Munn Z, Aromataris E, Deakin A, Schultz T, Mandel C, Maddern G, Pearson A, Runciman W. Use of surgical safety checklists in Australian operating theatres: an observational study. *ANZ journal of surgery*. 2017 Dec;87(12):971–5.
5. Safe Surgery Checklist Implementation Guide [Internet]. Boston: Ariadne Labs; 2015 [cited 2022 Nov 16]. Available from: www.SafeSurgery2015.org