Complex system, simple solutions

In June 2008, the World Health Organization launched a global patient safety challenge 'Safe Surgery Saves Lives' to reduce the number of surgical deaths across the world. As part of this initiative, the World Health Organization Surgical Checklist was devised (World Health Organization, 2008). This checklist is composed of 19 key points which target three different parts of the operative process: before the induction of anaesthesia, before surgical incision and before the patient leaves the operating theatre. The primary aim of this checklist is to systematically and efficiently ensure that all conditions are optimal for patient safety by improving team communication, consistency of care and reducing complications and death in the perioperative period. This simple tool has proven that, by following a few critical steps, health-care professionals can minimize common and avoidable risks associated with surgery and anaesthesia.

The World Health Organization Surgical Checklist covers key points up until the patient is to leave the operating theatre. However, there is currently little research on the implementation of a similar checklist in the postoperative period, particularly for patients who are to be optimized on the post-anaesthetic care unit before being discharged to a regular surgical ward. It would seem logical to adopt a checklist to cover this period of the patient journey, as the risk of miscommunication is particularly high because a new health-care team will be taking over the care of a complex and high-risk patient.

Advantages of using a checklist

Although seemingly simple, a checklist can be an extremely powerful tool. Over recent years, safety checklists have been widely implemented within the aviation industry where they have been shown to consistently improve team building and passenger safety. Primarily they promote organization and structure. Mahajan (2011) and Haynes et al (2009) have shown the positive impact a checklist can have on improving patient outcome.

In the document *Safe handover; safe patients*, the British Medical Association Junior Doctors Committee (2004) identify the pitfalls of handover and there are key points worthy of reflection. Health-care professionals often give verbal handovers at the same time as the receiving team are setting up vital life support and monitoring equipment. Team roles and responsibilities are often not clearly defined and essential jobs may not be carried out. Checklists and written updates are key documents which are often used in clinical practice. These data represent source information for good transition of care and omissions have a knock-on effect of increasing the workload of staff in hard-pressed clinical areas.

Multidisciplinary handover reduces these omissions. Miscommunication of key information can be reduced by having one person (nominated lead) speaking at any one time and this can prevent any opportunities for generating conflicting information. Finally handover must be seen as a two-way process. The team responsible for receiving the patient must be given the opportunity to ask questions and clarify points and not simply act as passive recipients of information.

Addressing these major points, Catchpole et al (2007), with a team at Great Ormond Street Hospital, London, reported a 'Formula 1-style' post-anaesthetic handover in the context of paediatric cardiac surgery. In this study, the surgical, anaesthetic and intensive care teams all adopted a strict handover protocol conducted at the patient's bedside. This entailed formal introduction of team members, the transfer of monitoring equipment and finally clear written and verbal handover from a designated team lead for each area of expertise. This process initially prolonged handover. However, as staff became familiar with the protocol, efficiency and timing improved and it was adopted as standard of care. Anecdotally a number of such solutions to handover have been adopted locally, but are yet to develop into a national standardized process.

Disadvantages of using a checklist

There are currently limited data on any disadvantages or pitfalls of using a checklist in clinical practice. However, one may speculate that a checklist can be perceived as an additional piece of paperwork. Furthermore, some may feel that a checklist is restrictive to the details within it, not providing opportunity for further discussion around a particular subject or patient.

Conclusions

As the perioperative period continues to evolve as a complex high-risk episode, it is necessary for all health-care workers to seek measures to reduce harm and improve patient safety. A safety checklist is a simple intervention in the post-anaesthetic care unit that could be adopted with minimal infrastructural support. BJHM

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