EDITORIAL

A culture of change - hospital safety check lists

The world over, hospitals are including safety of patients as a measure of surgical care and a requirement for accreditation. Operating rooms have come under the hammer of the World Health Organization (WHO) in a global attempt to reduce error. The WHO surgical safety checklist generic document aims to ensure that the correct patient is being operated upon, that the checklist prevents wrong site surgery, and focuses on appropriate and timely antibiotic prophylaxis – the omission of which creates a huge impact on healthcare economics and spread of hospital acquired infection. Secondary beneficial effects of operating room safety checks are thought to be, harnessing a team approach among operating room staff and to ensure that equipment is in good working order. The WHO recommends modifications to the checklist to suit local conditions which may vary widely within the country and from one operating room to the other.

The evidence

A study published in 2009 revealed that implementation of the WHO - 19 item check list resulted in reduction of surgical complications from 11 to 7 percent, and reduced hospital mortality from 1.5 to 0.8 percent [1]. This was a powerful effect from a simple intervention which led to many developed nations mandating the use of checklists in their hospitals as a mechanism to achieve zero error. Its effect, however, remains unclear; subsequent studies have failed to show reduction in morbidity and mortality of the kind shown by the original WHO study [2,3] and only studies which incorporated team training [4,5] and used multiple checklists, in a more comprehensive patient safety system, have shown results similar to the index WHO study [6]. In the most recent study of the value of a safety checklist in Ontario, Canada, Urbach et al [7] did not show the improvement in outcomes seen in previous studies, although these authors conceded that a greater effect of safety checklists may arise with intensive training of staff and better monitoring of compliance. Mere implementation of a safety checklist by filling in tick boxes may not achieve the aims of its pioneers, and requires the diligence and compliance of all team members to ensure that patient safety is taken way beyond the operating room into a safe environment of post-operative care on the wards, until the patient is finally discharged from hospital. And there are other matters that affect patient safety, such as, intra-operative surgical decision making, which ultimately affects patient outcomes in a manner that is far worse than the omission of surgical safety tick boxing - in a discussion focused on prevention of bile duct injury during laparoscopic cholecystectomy, it becomes apparent that better communication between the surgeon and the team in the operating room may have averted bile duct injury [8]. Up to now, the literature has not addressed the issue of safety check lists and "near misses" in the operating room. Near misses - which are defined as errors or malfunctions that might well have caused harm if they had not been intercepted, need to be audited closely, for, herein, may lie one of the greatest values of a safety check list.

Thus, while the jury is yet to make a decision on the value of surgical safety checklists, it makes common sense for hospitals and staff to embark upon the "paradigm shift" toward a safer surgical culture [9]. Most will agree that it will enhance communication and teamwork, and bring to the fore a culture in which patient safety becomes a priority. To achieve this, teams need to train and understand the nature of checklist exercises so that better compliance could be achieved.

Kemal I. Deen

References

1. Haynes AB, Weiser TG, Berry WR, et al. A surgical safety checklist to reduce morbidity and mortality in a global population. N Engl. J Med 2009; 360:491-499

- 2. van Klei WA, Hoff RG, van Aarnhem EE, et al. Effects of the introduction of the WHO "Surgical Safety Checklist" on in-hospital mortality: a cohort study. Ann Surg. 2012; 255:44-49
- 3. Sewell M, Adebibe M, Jayakumar P, et al. Use of the WHO Surgical Safety Checklist in trauma and orthopaedic patients. Int Orthop. 2011; 35:897-901
- 4. Bliss LA, Ross-Richardson CB, Sanzari LJ, et al. Thirty-day outcomes support implementation of a surgical safety checklist.

JAm Coll Surg 2012;215:766-776

- 5. Young-Xu Y, Neily J, Mills PD, et al. Association between implementation of a medical team training program and surgical morbidity. Arch Surg 2011;146:1368-1373
- 6. de Vries EN, Prins HA, Crolla RM, et al. Effect of a comprehensive surgical safety system on patient outcomes. N Engl J Med 2010;363:1928-1937
- 7. Urbach DR1, Govindarajan A, Saskin R, Wilton AS, Baxter NN. Introduction of surgical safety checklists in Ontario, Canada. N Engl J Med 2014; 370:1029-1038
- 8. de Silva M. A debate: Is major bile duct injury preventable? The Sri Lanka J of Surgery. 2011; 29:79–83.
- 9. de Silva M, Senanayake S, Sridharan S. Safe surgery: time for a paradigm shift. Ceylon Medical Journal 2013; 58: 139-141

Erratum

Case report - Vesico ureteric reflux- an unusual cause of urinoma after total nephrectomy. The Sri Lanka Journal of Surgery 2014; 32(1): 39-41

The authors names should be corrected as:

Kothari Reena, Thakur Dileep S, Kumar Vinod, Somashekar Uday, Sharma Dhananjaya

Department of Surgery, Government NSCB Medical College, Jabalpur, India