2019

http://jmscr.igmpublication.org/home/ ISSN (e)-2347-176x ISSN (p) 2455-0450 crossref DOI: https://dx.doi.org/10.18535/jmscr/v7i11.93



Journal Of Medical Science And Clinical Research An Official Publication Of IGM Publication

### Original Research Article Surgical Safety Checklist: Are We Serious? A Survey

Authors

Kapil Sindhu<sup>1</sup>, Piyush K. Sinha<sup>2</sup>, Mohiender K. Malhotra<sup>3</sup>, Ashutosh Bawa<sup>4</sup>, Jatin Bedi<sup>5</sup>, Nischal Shivaprakash<sup>6</sup>, Shabool Nafees<sup>7</sup>

<sup>1</sup>Assistant Professor, Dept. of Surgery, MMIMSR, Mullana Ambala 133207
<sup>2</sup>Senior Resident, Dept. of Surgery, MMIMSR Mullana Ambala 133207
<sup>3</sup>Professor, Dept. of surgery, SHKM Govt, Medical College Mewat, 122107
<sup>4,5,6,7</sup>Junior Resident, Dept. of Surgery, MMIMSR Mullana Ambala 133207

#### Abstract

**Background:** Surgical Safety Checklist was given as thesis to postgraduate student with the aim to popularize its routine use in our hospital as WHO surgical safety check list has become integral part of "Safe Surgery Saves Lives" initiative. This survey was done with the aim to know the actual usage of Surgical Safety Checklist by all the stake holders working in department of surgery and for quality improvement purposes, but are we serious?

**Material & Methods:** With the idea in mind we had conducted a study to know about the awareness and practical use of WHO surgical safety checklist among surgeons working in all the six units in department of surgery in MMIMSR, Mullana, Ambala .Printed proforma with a set of questions was given to all the consultants, senior resident and postgraduates, the result was analysed.

**Result:** All except 1 out of 56 participants of the study group had heard about the safety checklist and although 17 out of 56 said they are following the checklist regularly but 51 out of 56 also answered that they will start using Surgical Safety Checklist from the next patient, this makes their response doubtful regarding actual usage of safety checklist in their surgical practice.

**Conclusion:** There is an urgent need to see that surgical safety checklist are regularly used by all the surgeons which appears can only be done if medical council of India issues some directions or orders to this effect as other methods have proved futile in our own setup as we don't have safety culture. **Keywords:** Checklist; Safe surgery; Safety culture.

#### Introduction

As about 234 million operations are performed worldwide annually, which are more than normal vaginal deliveries done in a year. WHO had no tool to monitor the standard of surgical care worldwide so it deliberated and devised a method which is safe and easily reproducible. Therefore in 2007, WHO introduced surgical safety checklist which formed the integral part of "safe surgery saves life" initiative. It was found out if surgical safety checklist is used in letter and spirit it can reduce the post surgical complications from 11% to 7 % and total hospital death rate from 1.5% to  $0.8 \,\%.^2$  Keeping the advantage of use of surgical safety checklist in mind and to popularise its use we had given this topic as part of postgraduate thesis in year 2014 which was submitted in year 2016 to the university as part of partial fulfilment

of requirement for the degree of M.S. General Surgery. With the idea to know how much this surgical safety checklist is being actually used and also to explore if this is not being used what more can be done to popularise its use, we conducted the present survey.

### Material and Methods Inclusion Criteria

All the doctors (consultants, senor resident and postgraduates) the six units in department of surgery in MMIMSR, Mullana, Ambala were included in the study group.

### **Exclusion Criteria**

Doctors (consultants, senor resident and postgraduates) who were not willing toparticipate were excluded.

The study was conducted almost after one year of submission of postgraduate thesis "A Prospective Study of Implementation of Surgical Safety Checklist" in the department of surgery in MMIMSR, MULLANA AMBALA as a part of quality improvement purpose .Printed proforma was distributed to all the doctors (consultants, senior residents and postgraduates) after acquiring consent from the participants. The proforma contained a set of questions pertaining to the surgical safety checklist which participants have to answer in Yes or No. Those doctor/doctors who refused to participate were excluded. The sample proforma is given wide infra. All the proformas were collected and after the collection of the proformas analysis was done by the persons who were not involved in the study. The audiovisual presentation was made discussing the results of the questionnaire in the departmental meeting with the idea that the repeated reminder may make all the stake holders use the surgical safety checklist for the benefit of both treating surgeons and their patients. The copy of WHO surgical safety checklist was given to all stake holders as part of reminder.

### Results

A total of 56 doctors (consultants, senior residents and postgraduates) were given the printed proforma which included 11 Professors, Associate Professor, 5 Asst. Professors, 7 Senior Residents (Post Graduate Residents), 32 Junior Residents (MS Gen. Surgery Post graduate Students). Only 1 professor had not participated in the survey. Of the total, 55 (98.21%) who participated in the survey were included in analysis of the data & and 1 (1.79%) who refused to participate was excluded from data analysis. Out of 55, 54(98.18%) participants were aware about the surgical safety checklist while 1 (1.12%) had not heard of it. Even though 54 doctors who said that they are aware of WHO Surgical Safety Checklist, only 47 of the participants were aware that a thesis on the same has been submitted by resident 1 year back therefore only total of 8 doctors had no awareness about any such thesis on surgical safety checklist. To the question "whether they are following Surgical safety checklist in their unit regularly or not" only 16 answered positively, rest 39 doctors response was in negative.

When a specific pointed question was asked about the awareness of wrong patient being operated upon by surgeon in MMIMSR, Mullana, Ambala 42 answered with affirmative and 13 showed their ignorance about the knowledge of such a incident happening in department of surgery.

Finally when asked that "when will you start using surgical safety checklist regularly "each participant (100%) picked "from the next patient". A final question was asked should the doctor you getting operated by be using checklist. Survey relieved as many as 111 (78%) of 142 delegates giving answer as yes showing the belief in the fact that this tool can decrease avoidable errors.

2019

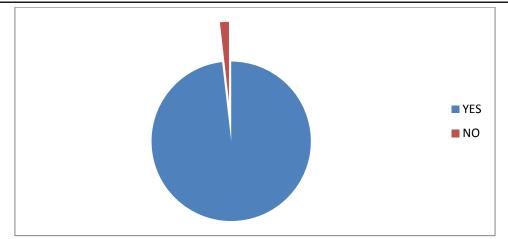


Figure 1: Showing the awareness about WHO surgical safety checklist

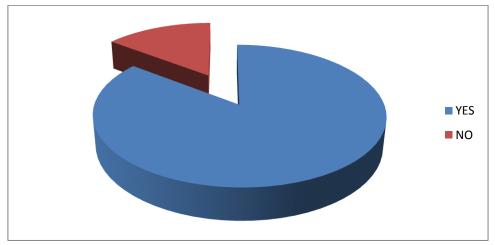
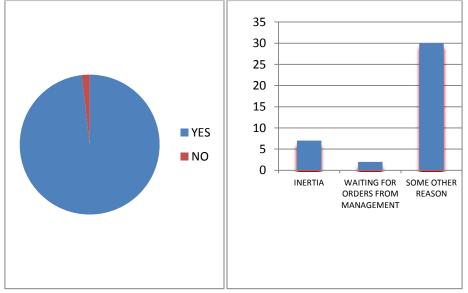
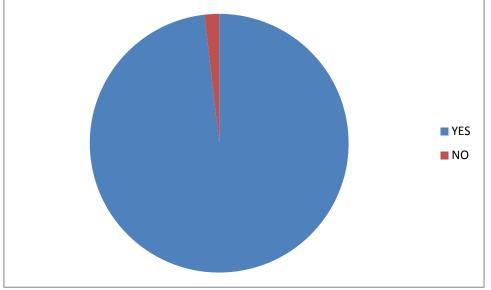


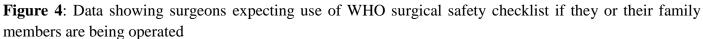
Figure 2: Awareness about the thesis conducted on the WHO surgical safety checklist in the department



**Figure 3**: Data showing the use of WHO surgical checklist in the department and if not, the reason for not following it.

### 2019





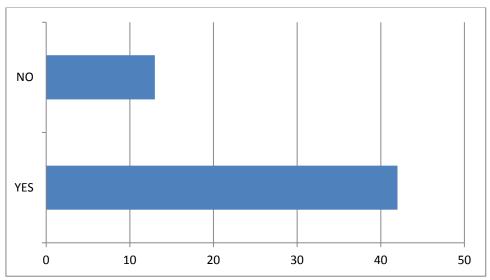


Figure 5: Awareness about wrong patient being operated by some other surgeon of different unit.

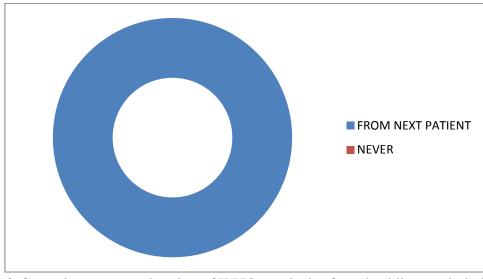


Figure 6: Commitment towards using of WHO surgical safety checklist regularly in future

Kapil Sindhu et al JMSCR Volume 07 Issue 11 November 2019

Surgery Regarding Awareness and Usage of Surgical Safety Checklist Needed for Quality Improvement Purpose Designation: Professor/ Assoc. Professor/ Asst. Professor/ SR/ Resident (I/II/III) Not willing to participate in survey. Yes NO 1. Are you aware of WHO Surgical Safety Checklist? 2. Are you aware that study or thesis on "Surgical Safety Checklist" is going on in the department? 3. Are you following Surgical Safety Checklist in your unit regularly? 4. If not, what is preventing you from following Surgical Safety Checklist? Please tick- $\cap$ a. Inertia  $\bigcirc$ b. Waiting for orders from management c. Some other reason 0 5. Do you want the surgeon to use Surgical Safety Checklist if you or your family members are being operated? 6. Are you aware that some surgeon operated wrong patient of other unit in our institute 7. When will you start using Surgical Safety Checklist regularly? Please tick-0 a. From the next patient  $\bigcirc$ b. Never World Health Organization Surgical safety checklist (first edition) Sign out Sign in Time out Confirm all team members have Patient has confirmed Nurse verbally confirms with the · Identity introduced themselves by name and team: • Site role The name of the procedure recorded Procedure Consent Surgeon, anaesthesia professional That instrument, sponge and needle and nurse verbally confirm Site marked/not applicable Patient counts are correct (or not Site
Procedure applicable) Anaesthesia safety check completed How the specimen is labelled Pulse oximeter on patient and functioning Anticipated critical events (Including patient name) Does patient have A: Whether there are any equipment Surgeon reviews: What are the critical or unexpected steps, problems to be addressed Known allergy? operative duration, anticipated blood loss? Surgeon, anaesthesia professional Yes and nurse review the key concerns Anaesthesia team reviews: Are there for recovery and management Difficult airway/aspiration risk? any patient-specific concerns? of this patient Yes, and equipment/assistance available Nursing team reviews: Has sterility (including indicator results) been confirmed? Are there equipment Risk of >500ml blood loss (7ml/kg in children)? issues or any concerns? Yes, and adequate intravenous access Has antibiotic prophylaxis been given and fluids planned within the last 60 minutes? Yes Not applicable Is essential imaging displayed? Yes Not applicable

### Discussion

WHO introduced a surgical safety checklist as part of its "Safe Surgery Saves Lives" initiative. The checklist's purpose was to reduce surgical complications that resulted from inadequate safety practices and promote greater communication among surgery teams. The use of surgical safety checklist showed reduction in complications from 11 to 7 % and total in hospital death rate from 1.5 to 0.8%.<sup>2</sup>Use of safety checklist involves both changes in systems and changes in the behaviour of the individual surgical teams.<sup>1</sup> Use of the W.H.O surgical safety checklist has been associated with a significant reduction in major postoperative complications after surgery.<sup>3,4,5,6,7,8,9</sup> In our study we had tried to evaluate the awareness status, regular usage and even tried to highlight the significance of its usage by including specific question of about the safety checklist by asking pointed question in regard to awareness of wrong patient being operated upon by surgeon in MMIMSR, Mullana, Ambala in our region. Unfortunately the majority of the surgeons in our study though were found to be aware about the checklist still they are currently not using the checklist in their practice. We have tried to make them aware of it via an audio-visual presentation by showing the results of this survey.

### Conclusion

The study clearly depicts the need use some innovative methods including utilizing the services of MCI, New Delhi as it is clearly demonstrated in our survey that even though we know the benefits of surgical safety checklist still we are not using it because we are not held accountable.

### References

1. Haynes AB, Weiser TG, Berry WR, Lipsitz SR etal.A surgical safety checklist to reduce morbidity and mortality in a global population. New England J Med.2009;360: 491-499.

- World Alliance for Patient Safety. WHO guidelines for safe surgery. Geneva: World Health Organization, 2008.
- 3. Semel ME, Resch S, Haynes AB, Funk LM et al. Adopting a surgical safety checklist could save money and improve the quality of care in U.S. hospitals. Health Affairs.2010; 29(9):1593-1599.
- 4. Lingard L, Regehr G, Orser B, et al. Evaluation of a preoperative checklist and team briefing among surgeons, nurses, and anesthesiologists to reduce failures in communication. Arch Surg 2008;143: 12-8.
- 5. Sexton JB, Makary MA, Tersigni AR, et al. Teamwork in the operating room: frontline perspectives among hospitals and operating room personnel. Anesthesiology 2006;105:877-84.
- 6. Makary MA, Sexton JB, Freischlag JA, et al. Operating room teamwork among physicians and nurses: teamwork in the eye of the beholder. J Am CollSurg 2006;202:746-52.
- Gawande A. The Checklist Manifesto: How to Get Things Right. New York: Metropolitan Books; 2009.
- Conley DM, Singe SJ, Edmondson L Berry WR, Gawande A. Effective Surgical Safety Checklist Implementation. J Am Coll Surg 2011; 212:873-79.
- Malhotra MK, Malhotra S, Chowdhary K, Khera A, Singh P.Surgical Safety Checklist Popularity among the surgeons? A survey. Bangladesh Journal of Medical Science2017; 16 (04) : 521-524.