

'An audit of the engagement in the 'Time Out' section of the WHO Checklist in Urology Theatres in a district general hospital'.

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Abstract: The importance of the WHO Checklist and its impact on crude mortality rate after surgery cannot be understated. Personal experience at my current core surgical placement highlighted numerous examples of a good acceptance of the WHO checklist, however, too often team members were blasé and not engaging in the 'Time Out' section of the checklist. This Audit assesses engagement in the Time Out section of the WHO Checklist by 4 key staff members in theatre; Surgeon, Anaesthetist, Scrub Nurse specific to the case and floating ODP. Over a 2 week period I subjectively assessed engagement in the 'Time Out' section of the WHO checklist in all Urology theatre lists in a District General Hospital.

Results indicate that the Scrub Nurse for each case is consistently the most engaged and involved in the checklist, with the Anaesthetist performing poorest. All staff members were more engaged in the checklist for open cases with the exception of the Scrub Nurse who was more involved and communicative during endoscopic cases. The first case on the list was consistently more engaged in; 79%, with the last case having a rate of 53% engagement. The only cases with 100% engagement from the 4 key staff members were cases unusual to the team for example an open nephrectomy.

Recommendations and changes made were to refer to this section specifically as the 'TIME OUT', giving an indication to all staff to stop their current task and listen to the checklist, (previously the practice has been to simply say 'can we do the WHO'). We also distributed the results of the original audit to all staff members involved and discussed the shortcomings highlighted in the audit.

Re audit of the engagement showed a significant improvement across all staff members and across all case types.

Introduction: The care of a surgical patient attending for an operation is complex and involves a number of processes and healthcare workers to combine effectively to optimise

the outcome for each patient. On behalf of the World Health Organisation (WHO), Gawande and the World Alliance for Patient Safety (2008) recognised this, and due to significant perioperative avoidable complications worldwide, they set objectives to minimise the risk of serious harm associated with surgical interventions. From these objectives the *WHO 'Safer Surgery' Checklist* was developed and introduced to theatre departments worldwide (Fig. 1). After a successful global pilot study and its subsequent launch (Haynes *et al.* 2009), it has been widely endorsed, however implementation is challenging. (1)

The crude mortality rate after major surgery is 0.5-5% and complications after inpatient operations occur in up to 25% of patients. Mortality from general anaesthesia alone is reported to be as high as one in 150 in some parts of sub-Saharan Africa. (2)

WHO reached consensus on four areas in which dramatic improvements could be made in the safety of surgical care: ***surgical site infection prevention, safe anaesthesia, safe surgical teams and measurement of surgical services.***

Personal experience in the operating theatre highlighted numerous examples of the acceptance of the checklist. However, there are occasions where some team members seem blasé about the importance of the checklist. Experience from other trusts is that the 'Time out' section was adhered to and all persons present were fully engaged and listening to all questions/ participating. I did not have the same experience in this hospital.

Aims: To assess engagement in the Time Out section of the WHO Checklist by 4 key staff members in theatre;

1. Consultant/SPR performing the procedure
2. Anaesthetist
3. Scrub nurse specific to the case
4. ODP/ Floating theatre staff member

Methods: Over a 2 week period I subjectively assessed engagement in the 'Time Out' section of the WHO checklist. All Urology lists in 2 main urology theatres in George Eliot Hospital were assessed.

Parameters recorded-

- Number of case on list
- What is the procedure?
- Did the whole team introduce themselves? (relevant only for first case on list)
- Staff engagement – were the staff members actively involved in the checklist or were they distracted (did they need asking twice?)
- Any other interruptions or comments?

Results:

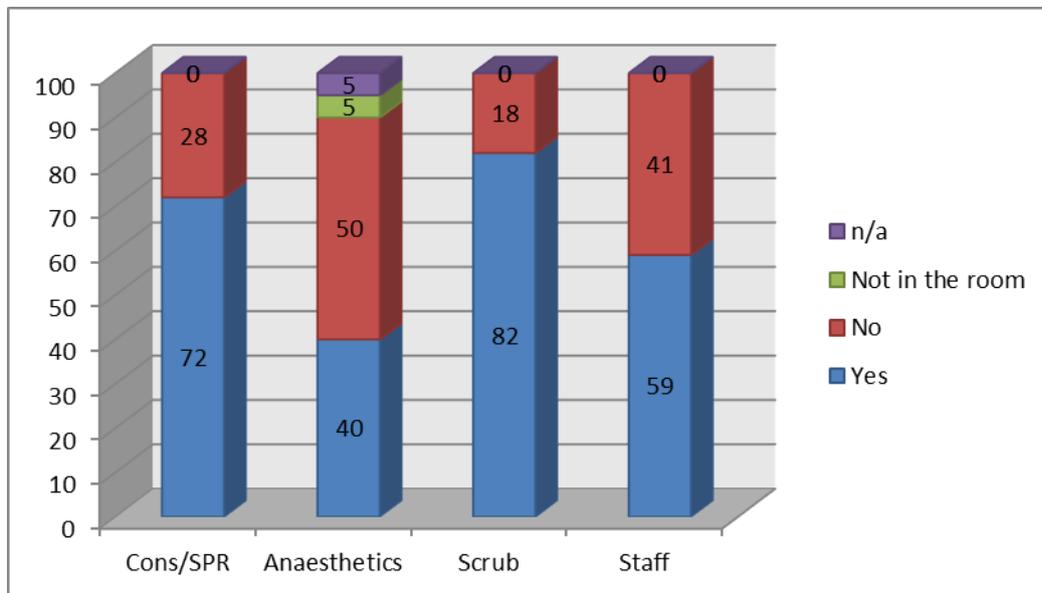


Table 1. Percentage of WHO checklists perceived to be 'fully engaged in' by staff speciality

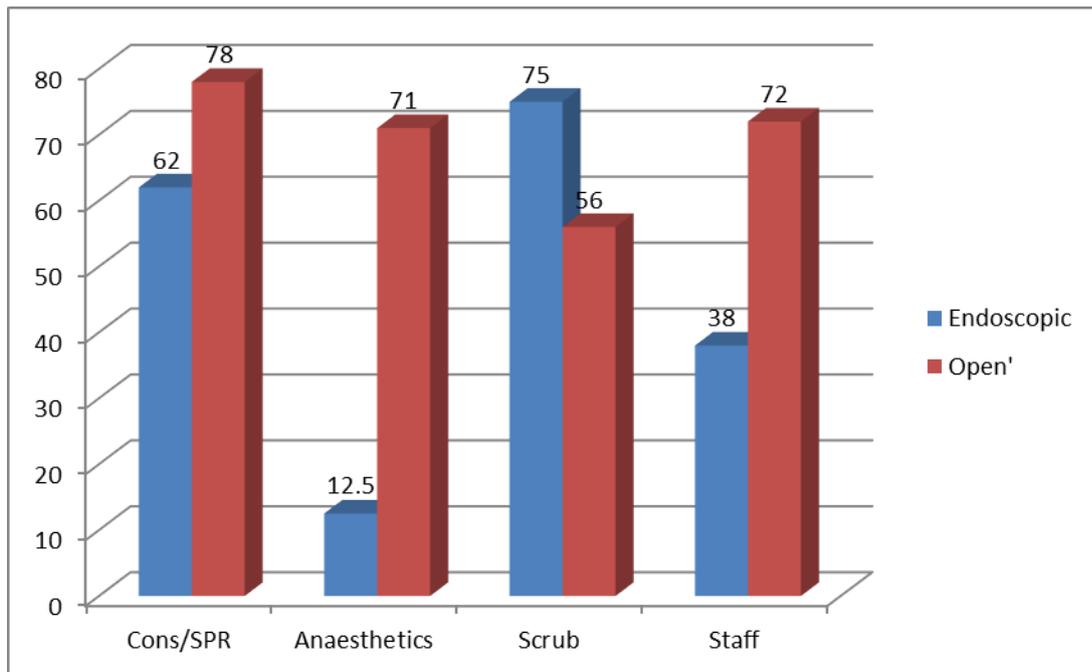


Table 2. Percentage of engagement by each operation type. Endoscopic vs Open

First case on list vs last case on the list:

- Out of 4 members of staff evaluated (*Cons/SPR, Anaesthetist, Scrub Nurse and ODP/Staff*), how many were engaged on average in the first WHO checklist vs the last?
 - **1st Case- 79%**
 - **Last Case- 53%**

Of those with full engagement- what was the difference?

- Of 22 cases evaluated, **only 7 had full engagement** in the WHO checklist with no interruptions.
- 4 of which were **first case of the list**

- 1x nephrectomy, 1x torsion, 1x Suprapubic Catheter Insertion and 1x testis prosthesis. (all 'unusual' cases for the team)

Introduction of team members:

- The results comprised 7 theatre lists in total
- Full staff member introduction at the start of the list was only performed on 2 of these.

Recommendations made:

1. We should refer to the Time Out section of the WHO Checklist as the '**TIME OUT**'.
 - This has more meaning; it indicates that all staff members should stop what they are doing and listen/participate in the checklist.
2. This audit was distributed to all theatre staff and particularly discussed with urology theatre staff.

Re-Audit Results:

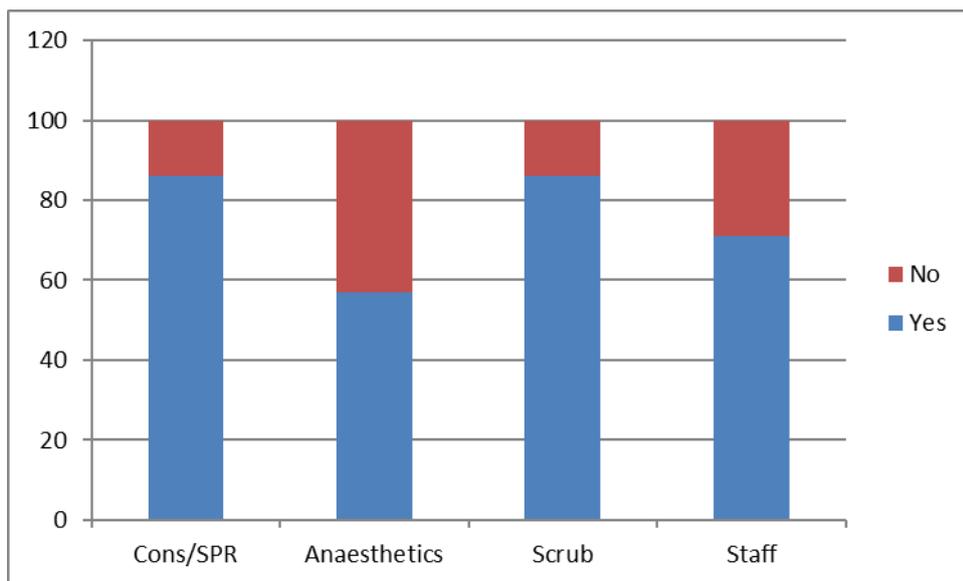


Table 3. Re-Audit: Percentage of WHO checklists perceived to be 'fully engaged in' by staff speciality

First case on list vs last case on the list:

- Out of 4 members of staff evaluated in the re-audit (*Cons/SPR, Anaesthetist, Scrub Nurse and ODP/Staff*), how many were engaged on average in the first WHO checklist vs the last?
 - **1st Case- 88%**
 - **Last Case- 63%**

Discussion: The engagement in the Time Out section of the WHO Safer Surgery Checklist is dependent on the staff member, the number of the case on the theatre list and the case itself.

The anaesthetist was least engaged with just a 40% engagement rate in original cases evaluated. This could be because they have already performed the 'Sign in' (before anaesthesia) section of the WHO Checklist in the anaesthetics room and feel the rest is surgeon and scrub nurse specific. This improved after introduction of recommendations to 57% but they were still the least engaged of all staff groups. This may also reflect the fact that the 'TIME OUT' is performed when the patient is moved from the anaesthetic room to the theatre and the anaesthetist is focused on stabilising the patient after the transfer.

The results show that engagement is highest in the earliest cases on the list, specifically in the first case. The specific recommendation to refer to the checklist as the 'Time Out' showed significant improvement in the results with the connotation of the phrase causing staff members to stop their current task and literally '*time out*'. After this recommendation has been adopted, staff members engaged more with the latter cases on the list as well as the first however the trend was still present.

The case itself was a defining factor in the engagement of staff with 'open' procedures engaged in more readily. Less common procedures were fully engaged in. Re-

Audit did not allow a repeat evaluation in this field as all cases in the 2 weeks of re-audit were endoscopic and our usual case type distribution.

Further auditing of this topic with a higher case load over a longer period time would be beneficial in order to give more robust data.

References:

- 1. Haynes A *et al.* (2009). A surgical safety checklist to reduce morbidity and mortality in a global population. *N Engl J Med.* January 2009. 360(5):491-499.
- 2. WHO.INT