**Summary**

Scarborough hospital provides acute medical and surgical services, including trauma and intensive care services to the population and visitors to the North East Yorkshire Coast. Within surgical services, there is a dedicated emergency (CEPOD) theatre which commences at 14.00 Monday to Friday and runs continuously over the weekend.

The team brief is one aspect of a process aimed at reducing harm in perioperative care. It has also shown to improve teamwork and productivity within the theatre environment.

The introduction of a meeting prior to the CEPOD list and raising awareness of the team brief has dramatically improved team brief compliance and produced a change in team culture in our hospital. In addition there has been an improvement in anaesthetic start time for the emergency cases.

Further reinforcement of the benefits of team brief, both for patient and for operating team may help achieve 100% compliance in the future.

**Background**

The World Health Organisation (WHO) launched an initiative in 2006, *Safe Surgery Saves Lives* aimed at reducing deaths and complications during surgery. The WHO surgical safety checklist was implemented in 2009 under the auspices of the National Patient Safety Agency, which included three steps to be performed during any operation: Sign In, Time Out and Sign Out.

Two further steps were added encompassing five in all:

The *Five Steps to Safer Surgery:*

1. Team Brief
2. Sign In
3. Time Out
4. Sign Out
5. Team debrief

The team brief in particular helps develop non-technical skills such as teamwork and communication. It:

- Allows operating lists to be planned,
- Ensures essential safety steps are checked (i.e. antibiotic prophylaxis, VTE prophylaxis, confirming side of surgery etc.)
- Improves theatre efficiency as problems could be highlighted earlier and necessary changes made to list (e.g. running order).

In Scarborough it was noted that the team brief took place prior to every elective list but not for the cases booked into the emergency theatre. In addition, the theatre coordinator (not a member of the booking team) on most occasions informed the emergency theatre anaesthetist about pending cases.

The initial audit conducted examined the compliance with the *five steps to safer surgery* and anaesthetic start time after 14:00 Mon-Fri and the second audit looked at team brief compliance and the anaesthetic start time after 14:00 Mon-Fri.
Aims

To assess and improve team brief compliance

Objectives

1. To initially assess compliance with the five steps to safer surgery
2. To assess anaesthetic start times as a surrogate marker for improved efficiency

Approach

Audit committee approval obtained for both audits.

Audit 1:

An initial prospective snapshot audit was carried out by the author alone on emergency theatre cases within a one month period when assigned to the emergency theatre. (09/07/13 - 28/08/13).

The data collected included compliance with the five steps to safer surgery and anaesthetic start time for the first case of the weekday list.

Intervention

The results were presented to the local joint surgical/anaesthetic audit meeting. Consensus was reached to introduce a CEPOD list meeting at the time of 12:30 between the theatre coordinator, surgeon and anaesthetist to:

• Discuss upcoming emergency cases
• Confirm order of the list
• Encourage attendance for team brief before the surgeon’s respective cases(s).

This 12:30 meeting was NOT a team brief as the entire theatre team were not present (i.e. no scrub nurse or operating department practitioners).

In all the hospitals I have worked I have never seen a team debrief, therefore this issue was not taken any further

Audit 2:

Following implementation of the 12:30 CEPOD list meeting, a second audit was carried out with prospective data collected for every emergency case (28/11/13 - 30/01/14) including attendance at the 12:30 meeting, team brief compliance and anaesthetic start time for the first case of the weekday list.

Only team brief compliance was re-audited as compliance with the other steps was good.

Challenges

The main challenges faced during this project were to influence a change in culture amongst the theatre team. There was significant resistance to changing the status quo of how the emergency theatre was run and claims of potential logistical difficulties with implementing the 12:30 meeting. However, with consensus amongst the surgeons and anaesthetists to implement this meeting, the meeting has been carried out daily since its implementation and continues to this day.

Outcomes

Audit 1: See figure 1

• 36 cases were analysed
• Cases not requiring the full five steps to safer surgery were deemed not applicable (e.g. central line insertion, cardioversion)
• 11 cases started after 18:00 and one after midnight. All were done Mon-Fri
• The average anaesthetic start time was 14:26.

Audit 2: See figure 2

• 134 cases were analysed
• Attendance at the 12:30 meeting included; Theatre coordinator (100%), Surgeon (92%), Anaesthetist (86%).
• 38 cases started after 18:00 and 10 after midnight
• The average anaesthetic start time was 14:19.
Figure 1: AUDIT 1: Compliance with the 5 steps to safer surgery is shown below

<table>
<thead>
<tr>
<th></th>
<th>Team brief</th>
<th>Sign In</th>
<th>Time Out</th>
<th>Sign Out</th>
<th>Team Debrief</th>
</tr>
</thead>
<tbody>
<tr>
<td>Done</td>
<td>3</td>
<td>36</td>
<td>33</td>
<td>33</td>
<td>0</td>
</tr>
<tr>
<td>Not Done</td>
<td>31</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>34</td>
</tr>
<tr>
<td>N/A</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Compliance</td>
<td>8.8 %</td>
<td>100 %</td>
<td>97%</td>
<td>97%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Figure 2: AUDIT 2: Team brief compliance is shown below

CEPOD list meeting cases imply only those discussed at the 12:30 Mon-Fri meeting

<table>
<thead>
<tr>
<th></th>
<th>Audit 1</th>
<th>All cases</th>
<th>CEPOD list cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team brief Done</td>
<td>3</td>
<td>62</td>
<td>54</td>
</tr>
<tr>
<td>Team brief Not Done</td>
<td>31</td>
<td>61</td>
<td>14</td>
</tr>
<tr>
<td>Team brief N/A</td>
<td>2</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>Compliance</td>
<td>8.8 %</td>
<td>50.4 %</td>
<td>79.4 %</td>
</tr>
</tbody>
</table>

More case studies available at www.hqip.org.uk
Conclusion

The team brief is one aspect of a process aimed at reducing harm in perioperative care. It has been shown to improve teamwork and productivity within the theatre environment. ²

The introduction of a meeting prior to the CEPOD list and raising awareness of the team brief has dramatically improved the compliance and produced a change in team culture in our hospital.

In addition, there has been an improvement in anaesthetic start time for the emergency cases by seven minutes although the causes for a late or delayed start are numerous and multifactorial.

Further reinforcement of the benefits of team brief, both for patient and for operating team may help achieve 100% compliance in the future.

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References


More case studies available at www.hqip.org.uk