



## RESEARCH ARTICLE

## Role of Briefing and Debriefing in Running Surgical Ward Round Effectively: A Prospective Observational Study

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### Keywords

Surgical checklist, Briefing, Debriefing, Surgical ward round, Patient safety

### Introduction

A surgical ward round (SWR) is a review of all in-patients admitted electively for investigation or an operation or acute surgical admissions. This diverse and complex cohort of surgical patients can pose significant diagnostic and management challenges and therefore, their adequate review during SWR can undoubtedly improve safety of the patients. Various measures to improve the effectiveness of SWR has been reported with variable success [1-8]. SWR constitute a keystone of safe hospital surgical practice and poor-quality SWR can lead to a greater number of adverse events risking the safety of the patients, thereby cascading to an increased financial strain on our already burdened healthcare system of NHS [8]. As stated by Shetty, et al. the mounting pressures from both outside and inside of health organizations [8], concerted efforts must be made to restore it back into prominence where SWR can no longer take a backseat to the other duties of a surgeon. Considering the role of briefing and de-briefing in improving the outcomes in operation theatre, SWR may be another area where its effectiveness may be explored. An operating room is a place in where simple

to a highly complex care is continuously being provided. Several factors contribute to a higher risk of mistakes in operation theatre than in other areas of care in hospital such as daily diverse team compositions, range of different procedure; from simple to complex surgery, high-risk anaesthetic medication, time pressure, variable patient turnover and the stress of quicker intervention in cases of emergency surgery. Higher rate of adverse events (2.9%-3.7% of hospitalisations) leads to financial implications, patient harm and loss of trust in healthcare [8,9]. In Dutch hospitals, 7.1% of all admitted patients experience an adverse event, of which 54.8% are due to operation and 24.3% are related to medication [10]. Technical and medical problems are not the major contributing causes to these adverse events, but rather, communication issues and lacking in team-work are leading to several errors in the healthcare [11,12]. Therefore, WHO check lists were introduced to operating theatres worldwide to prevent wrong-site surgery, to document procedures, to count used materials and verify post-procedure orders [13]. The use of these check lists has led to a 47% reduction in mortality and 36% reduction in morbidity [14], and mortality rates fell 62% when the checklists were used for emergency procedures [15]. The introduction of same style of briefing and debriefing may also improve the quality of SWR resulting in with an improved safety of the surgical patients. The relevance of team briefing

and debriefing in SWR is due to the need of review of large number of patients, in several wards sometime, day-to-day variation in team composition, shifting responsibility of team members, an opportunity to feedback within the team, and an opportunity to raise concerns if any. This prospective observational pilot study was conducted to improve patient safety by the introduction of briefing and debriefing in running the SWR effectively which emphasised on an optimum collaboration between rounding surgical team members. Brighton and Sussex University Hospitals NHS Trust is a major regional trauma centre and tertiary care unit for advanced colorectal cancer resectional procedures and regional upper GI cancer service provider in the UK. This is the biggest acute surgical services unit in the country providing care to approximately 80 acute surgical patients at any given time of the day throughout year. The acute care services are provided by three dedicated consultant lead team of upper GI surgery, lower GI Surgery and a CEPOD team running CEPOD theatre. Each upper and lower GI firms review approximately 40 patients per day in the SWR which takes approximately 4 hours to 6 hours per day. The objective of this pilot study was to assess the efficiency of SWR, promote continued improvement, avoid preventable mistakes, improve patient safety, improve teamwork, promote open atmosphere and promoting the support of juniors by implementing the principles of WHO checklist type on briefing and debriefing procedure.

## Methods

This idea was conceived from the use of WHO checklist in operation theatre for improving patient safety and its application in SWR settings. Royal College of Surgeons in England advocate the use of team briefing and debriefing where possible, but it has not yet been reported for SWR. The institutional ethics approval was not required due to the nature of the pilot study. Data was prospectively collected for six consecutives on call

weeks (42 days) aiming to focus on round experience by all team members. Briefing and debriefing was conducted just before and after the SWR (Table 1 and Table 2). The data was collected prospectively on Microsoft excel sheet.

Type of data:

- Characteristics of briefing and debriefing-duration and content
- Subjective feedback from surgical team members-positive and constructive
- Objective features of SWR-duration and missed patients

## Results

General and upper GI surgical team consisted of 5.57 (3-9) members per SWR per day over a span of 42 days which included consultant, registrar, SHO, F1, clinical assistant and medical students. There were 1506 patients review episodes on both new admissions and old in-patients. Mean SWR duration was 168.92 (140-240) minutes. Mean briefing and debriefing time was 6.85 (4-12) minutes and 6.71 (4-10) minutes respectively. Number of wards visited in SWR were 12.85 (10-17) per day. Briefing variables included team introduction, role of each member, round route and triaging. Debriefing variables included things which went well during SWR and areas where improvement was needed to run effective SWR (Table 1 and Table 2). The SWR was reported organized and systematic with better teamwork. No patients were missed from SWR during the study period. The absence of the clinical assistant was associated with prolonged duration of SWR due their vital role of updating surgical patient lists, locating the surgical patients in different wards of the hospital and provision of results of all investigations.

Team feedback:

- Better teamwork

**Table 1:** The definitions and aims of briefing and debriefing for surgical ward rounds.

Intervention	Description	Aims
<b>Briefing</b>	<ul style="list-style-type: none"> <li>• Briefing was carried out just before starting the surgical ward round.</li> <li>• All the members of the surgical team carried out following tasks in briefing.               <ul style="list-style-type: none"> <li>-Introduction</li> <li>-Role and job allocation</li> <li>-Route of the round</li> <li>-Triaging patients</li> <li>-Logistical issues that require extra attention</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• To learn availability of manpower resources.</li> <li>• To learn about capability and efficiency resources.</li> <li>• To find out logistical and technical issues well in advance and plan to resolve them.</li> </ul>
<b>Debriefing</b>	<ul style="list-style-type: none"> <li>• Debriefing was carried out just after finishing surgical ward round.</li> <li>• All the members of the surgical team carried out following tasks in debriefing.               <ul style="list-style-type: none"> <li>• What went well?</li> <li>• Areas where improvement is needed.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Identify positive outcomes during surgical ward round.</li> <li>• To learn lessons and improve performance in future.</li> </ul>

**Table 2:** Briefing and debriefing card for surgical ward rounds.

Briefing	Debriefing
<b>Personal</b>	<b>Personal</b>
<ul style="list-style-type: none"> <li>All team members present.</li> <li>Introduction (Name, role, other possible role).</li> <li>Any concerns (Fitness etc, early leaver?).</li> <li>Performance and learning goals (expected finish time, learning for juniors and medical students).</li> </ul>	<ul style="list-style-type: none"> <li>What went well?</li> <li>Room for improvement (task distribution, delegation, feedback, suggestions for improvement).</li> </ul>
<b>Patients</b>	<b>Patients</b>
<ul style="list-style-type: none"> <li>Triaging patients.</li> <li>Navigation route for surgical ward round.</li> <li>Patient list with updated location and the results of investigations or planned investigations.</li> </ul>	<ul style="list-style-type: none"> <li>Deviations from initial triaging.</li> <li>Deviations from planned route.</li> <li>Issues with location of patient.</li> <li>Issues with investigations.</li> <li>Suggestions for improvement.</li> </ul>
<b>Planning</b>	<b>Planning</b>
<ul style="list-style-type: none"> <li>Job delegation among team members and any deviation if required.</li> <li>Who is leading the surgical ward round.</li> <li>Time and place of debriefing.</li> </ul>	<ul style="list-style-type: none"> <li>Were there logistic problems?</li> <li>Problems with equipment?</li> <li>Learning goals achieved?</li> <li>Who takes responsibility for looking back the suggestions for improvement?</li> </ul>

- Organized session of clinical work
- Systematic approach of ward round
- Job allocation and delegation improved workflow
- Involvement of all team members such as clinical assistant and medical students
- Effective work style
- Improved safety
- Juniors felt supported
- Positive feel for transient members
- Awareness about team member work limitations
- Job delegation by consultant
- Better training for clinical assistants and juniors
- Jobs delegation as per team member skills improved team efficiency
- Job delegation by consultants reduced stress and workload on juniors
- All team members felt involved and reported positive feel for transient members of surgical team

## Discussion

Based upon the findings of this first ever and pilot study on the effectiveness of briefing debriefing in the safe running of SWR, the introduction of briefing and debriefing in the conduction of SWR significantly improved the team climate and the efficiency of their work with acceptable duration per briefing and debriefing. The briefing and debriefing seem to have more positive impact in case of surgical teams with

variable and alternating team compositions. The utilization of the process of SWR augmented by pre-round briefing and post-round debriefing may be an effective and innovative tool to improve patient safety.

Several models and interventions have been suggested to conduct a SWR safely with maximum effectiveness [1-8]. There has been significant variations in the conduction of SWR depending upon the seniority of clinical lead (consultant versus registrar), type of patients (old patients versus new admissions) and the settings of SWR (on-call team versus non on-call team). Therefore, this diversity may be responsible for a strong potential of errors in the management of surgical patients. The introduction of safety checklists in aviation industry helped to standardize the performance of team and minimized human factor-related errors [16,17]. Based upon same principles, the modified checklist system has been adapted to its use in various situations of health care sector such as in operation theatre and ward round [17]. These checklists assist in carrying out intricate clinical tasks, reduce omissions of clinical tasks and create a balance between variations in SWR while strengthening team communication, performance and patient experience [18,19]. The WHO safety checklist is a key example that has improved patient safety, reduced mortality and morbidity in surgery [13,20]. Previously reported randomized, controlled trial conducted on a simulation based ward round demonstrated that the utilization of a standardized checklist systems may reduce post-operative morbidity and significantly improved the quality of SWR [21]. The use of checklist to conduct SWR is almost a standard procedure now in many NHS hospital and in conjunction, adopting the concept of briefing and debriefing routinely may potentially enhance efficacy and safety of SWR.

## Limitations of the Study

The findings of current study are based upon single unit observational research and the outcomes are reported as the personal views of surgical team with variable experience of SWR. The assessment of the influence of briefing and debriefing on the mortality, morbidity and other outcomes was beyond the scope of this study due to several confounding factors. There were no baseline standards available to compare the results of this study and this is first ever reported application of briefing and debriefing concept for SWR. Future implications may be to identify specific outcome measures such as team-climate inventory, check the effectiveness of briefing and debriefing in conjunction with standardized SWR checklist and evaluate its role in the WR of medical specialities.

## Funding

None to declare.

## Conflict of Interest

None to declare.

## Acknowledgment

None to declare.

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