Structured OR team briefing before a case can dramatically reduce communication failures, a new study from Canada finds. In the study, surgeons, nurses, and anesthesia providers held a short briefing guided by a checklist. Researchers documented communication problems before and after the briefings were implemented.

Results showed communication failures per procedure fell by threefold. One-third of briefings showed “functional utility,” meaning they made a difference by identifying a problem, filling a critical knowledge gap, causing a change in plan, or promoting follow-up actions.

The study, published in the January Archives of Surgery, is believed to be the first to assess objectively the effect of briefings on OR team communication.

Poor communication is known to be a leading cause of errors like medication mistakes and wrong-site surgery.

A clear link

“What our study does is pinpoint one very clear link between a particular way of communicating and 4 particular kinds of communication breakdown,” Lorelei Lingard, PhD, of the University of Toronto, the lead researcher, told OR Manager.

The 4 kinds of failures are related to:

• timing—communication happens but not in time to be of maximum use
• content—some content is not communicated or is inaccurate
• purpose—the purpose of the communication is not getting resolved
• exclusivity—not all members of the team needed for the communication are present.

Briefings also made a difference in heading off consequences that were visible to the trained observers, such as tension among team members or wasted time. For example, there is an urgent request for equipment during a complex case, and the team must wait while the equipment is brought from another department.

To lay the groundwork, the researchers spent a year meeting with OR leaders, building rapport, providing education, and piloting the project. They then conducted the study in 3 phases:

• preintervention: collected data for 5 months before briefings were implemented
• intervention: implemented briefings for 3 months
• postintervention: collected data for 5 months after implementing briefings.

The briefings were guided by a 1-page checklist piloted in a previous study (illustration).

Briefings were typically led by a surgeon and lasted 1 to 4 minutes. Most took place after the patient arrived in the OR but before induction.

The trained observers documented communication failures and consequences for 172 procedures (86 in the preintervention phase and 86 in the postintervention phases). The researchers also asked OR teams about their experiences with the checklist and briefings.

Findings showed:

• On average, the number of communication failures per case declined from 3.95 before briefings were implemented to 1.31 after briefings were implemented.
• The number of communication failures visible to the observers was reduced by 64%.
More than one-third (34%) of the briefings had “functional utility,” meaning filled a key communication gap. For example, during one briefing, the anesthesiologist noticed that cefazolin had been ordered for a patient who previously had had a severe reaction to penicillin.

In all, 92% of respondents agreed the briefings allowed the team to identify and resolve problems, and 88% agreed they helped guard against mistakes.

Convenience and timing

Two areas that got a less positive response were convenience and timing for the briefings.

“We found almost 25% of the respondents thought the briefing was inconvenient” because it interrupted their usual work flow, Lingard says. About 20% thought

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**Preoperative team checklist**

**Attendance for completion of checklist**
At least one senior responsible representative from each profession should be present.

- **Anesthesia:** Staff, Fellow, Senior resident, Junior resident
- **Nursing:** Staff, Student
- **Surgery:** Staff, Fellow, Senior resident, Junior resident

**Patient information**
- Spoken language
- Family/visitor location
- Diagnosis
- History
  - Medical
  - Surgical
  - Anesthetic
- ASA status
- Medications given/held
- Allergies
- Tests
  - Images
  - Bloodwork
  - ECG
- Preoperative consultations
- Other considerations
  - Cognitive
  - Psychological
  - Special requests

**Operative issues**
- Procedure
- Operative plan
  - Description of procedure
  - Side of surgery
  - Intraoperative testing and pathology specimens
  - “Go-ahead likelihood”
  - Estimated duration
- Informed consent
- OR team
  - Experience with procedure
  - Students
- Visitors to the OR
- Operative medications
  - Antibiotics
  - Anticoagulants
- Anesthesia requirements
  - Airway
  - General or local
  - Invasive monitoring
  - Temperature maintenance (eg, warming blankets)
  - Regional block (eg, epidural)
- Blood products
  - Crossed and typed?
  - Grouped and reserved?
- Patient positioning and supports
- Special instruments and equipment
  - Retractor
  - Laparoscopic
  - Cell Saver
  - Headlights
- Recovery location

the timing was problematic. There wasn’t one profession that felt this way more than
the others.

When should briefings be held?

The timing is “an interprofessional dilemma,” she says, “because the moment
that’s most convenient for one profession is not the moment that is most convenient
for another.”

As the study continues in 3 institutions, the researchers are working with OR
teams on how to minimize the inconvenience.

“Surgical champions are important to the success,” she adds. “We actually had
surgeons who agreed to be paged to the room for the briefings.”

Another question that has arisen: Do briefings have to follow a structured check-
list to be effective? Or is a brief, informal discussion before the case sufficient? The
current research isn’t designed to answer that question, she notes.

Buy-in for briefings

What’s needed to implement brief-ings successfully?

“The number one issue is not surprising—you have to have buy-in from all 3 sur-
gical professions,” Lingard says. “There has to be the perception that there is some-
thing in it for each one of them, and that tends to differ by profession.”

Leaders need to spend time identifying what is important to each group.
Surgeons may resent briefings if they perceive them as a way to make sure others in
the room know what they should know already. Anesthesia providers may see brief-
ings as a waste of time if they perceive the briefings to cover information they don’t
need to know.

The researchers are also looking at how to sustain enthusiasm over time. Enthusiasm
tends to be high during the first few months and then wane, Lingard observes.

Briefings versus CRM

The researchers note that briefings may be a more cost-effective way to avert
communication breakdowns than crew resource management (CRM), which
requires teams to have day-long training away from the OR.

“We can’t afford to stop running the ORs. Therefore, we need interventions that
can happen in the authentic work situation. So I think there’s strong persuasive
value to this kind of approach,” Lingard says.

On the other hand, she says there is a danger that people in their usual work set-
ing will retain their habitual patterns.

“There is something to be said about taking them out, shaking them out of their
habits, and having them see one another in a different way. I don’t think we have a
sense of the cost benefit of that.”

What’s next?

The research is continuing, with the investigators using a wider sample size.
They are also looking at the effect of briefings on clinical process outcomes like the
timing of antibiotics.

“The hypotheses would be that if you get surgeons, nurses, and anesthesiologists to
talk about antibiotics in a timely way, the antibiotics are more likely to be adminis-
tered within the time frame recommended by guidelines,” she says.

More results are expected to be reported in the fall. ♦

References

briefing among surgeons, nurses, and anesthesiologists to reduce failures in com-

implementation of a checklist to promote interprofessional communication in the