

Search question: what is the evidence that briefings of operating teams prior to surgery improves operating theatre processes, team processes, or patient outcomes?

1. Glymph DC, Olenick M, Barbera S, Brown EL, Prestianni L & Miller C. (2015)

Healthcare Utilizing Deliberate Discussion Linking Events (HUDDLE): A Systematic Review

- Huddles originated from the concept of the football huddle.
- The HUDDLE acronym is: Healthcare, Utilizing, Deliberate, Discussion, Linking, Events.
- Glymph et al. (2015) conducted a systematic literature search of databases (ProQuest, Medline and CINHAL) from January 2005 to January 2013 and they included 11 studies in their review. (**Keywords search:** Communication, huddle, interprofessional, communication, preoperative brief, and team brief).
- They recognised that the HUDDLE provides a shared mental model for the surgery team before the start of the procedure.
- They highlighted preoperative huddles can increase teamwork, collaboration and communication which may improve patient safety.

2. McDowell DS, McComb SA. (2014)

Safety Checklist Briefings: A Systematic Review of the Literature

- McDowell and McComb (2014) conducted a systematic literature search of database (PubMed) for all the possible articles until mid-October 2012 they included 23 studies across 17 countries.

Some background statistics on death rates from medical and surgical complications:

“The National Center for Health Statistics reported that death rates in the United States from complications of medical and surgical care among adults 45 years and older dramatically decreased from 1999 to 2009:

- in adults 85 years and older, deaths declined 39% to 71.3 in 100,000,
- in adults 75 to 84 years, deaths declined 37% to 51.4 in 100,000,
- in adults 65 to 74 years, deaths decreased 38% to 27.9 in 100,000, and
- in adults 45 to 64 years, deaths decreased 28% to 8.9 in 100,000.”

- Semel et al. (2010) studied showed that the use of the checklist could “save more than \$100,000 annually for a hospital that performed 4,000 non-cardiac surgeries per year, a savings of \$25.96 per case.”
- They highlighted safety checklist briefings can improve overall patient safety outcomes such as wrong patient, procedure, side, and site.

For example:

“In 2012, de Vries et al. collected 6,313 checklists from six individual hospitals, including self-reports of “intercepted incidents” by checklist users; they discovered a total of 6,312 incidents by use of the SURPASS checklist, including 3,458 (54.8%) preoperative incidents and 897 (14.2%) perioperative incidents.

A study conducted in Liberia measured overall complications and surgical site infections in two different hospitals and pooled scores; this study showed significantly improved outcomes ($P < .0001$ for any complication; $P < .005$ for surgical site infections).”

- They noted safety checklist briefings could increase the teamwork, collaboration and overall communication and team discussions.

References:

de Vries EN, Prins HA, Bennink MC, et al. 2012. Nature and timing of incidents intercepted by the SURPASS checklist in surgical patients. *BMJ Quality and Safety* 21(6): 503–508.

Glymph DC, Olenick M, Barbera S, et al. 2015. Healthcare utilizing deliberate discussion linking events (HUDDLE): A systematic review. *AANA Journal* 83(3): 183.

McDowell DS, McComb SA. 2014. Safety checklist briefings: a systematic review of the literature. *AORN Journal* 99(1): 125–137.

Semel ME, Resch S, Haynes AB, et al. 2010. Adopting a surgical safety checklist could save money and improve the quality of care in US hospitals. *Health Affairs* 29(9): 1593–1599.

Yuan CT, Walsh D, Tomarken JL, et al. 2012. Incorporating the world health organization surgical safety checklist into practice at two hospitals in Liberia. *The Joint Commission Journal on Quality and Patient Safety*. 38(6): 254–260.

References for Glymph, Olenick, Brown, Prestianni & Miller (2015) article:

Ali M, Osborne A, Bethune R, et al. 2011. Preoperative surgical briefings do not delay operating room start times and are popular with surgical team members. *Journal of Patient Safety* 7(3): 139–143.

Awad SS, Fagan SP, Bellows C, et al. 2005. Bridging the communication gap in the operating room with medical team training. *The American Journal of Surgery* 190(5): 770–774.

Bethune R, Sasirekha G, Sahu A, et al. 2011. Use of briefings and debriefings as a tool in improving team work, efficiency, and communication in the operating theatre. *Postgraduate medical journal*. 2009.

Einav Y, Gopher D, Kara I, et al. 2010. Preoperative briefing in the operating room: shared cognition, teamwork, and patient safety. *CHEST Journal* 137(2): 443–449.

Gillespie BM, Chaboyer W, Fairweather N. 2012. Interruptions and miscommunications in surgery: an observational study. *AORN Journal* 95(5): 576–590.

Lingard L, Regehr G, Cartmill C, et al. 2011. Evaluation of a preoperative team briefing: a new communication routine results in improved clinical practice. *BMJ Quality & Safety* 2009.

Makary MA, Mukherjee A, Sexton JB, et al. 2007. Operating room briefings and wrong-site surgery. *Journal of the American College of Surgeons* 204(2): 236–243.

Nundy S, Mukherjee A, Sexton JB, et al. 2008. Impact of preoperative briefings on operating room delays: a preliminary report. *Archives of Surgery* 143(11): 1068–1072.

Paige, JT, Aaron DL, Yang T, et al. 2008. Implementation of a preoperative briefing protocol improves accuracy of teamwork assessment in the operating room. *The American Surgeon* 74(9): 817–823.

Whyte S, Cartmill C, Gardezi F, et al. 2009. Uptake of a team briefing in the operating theatre: A Burkean dramatic analysis. *Social Science & Medicine* 69(12): 1757–1766.

List of articles reviewed by McDowell, D. S., & McComb, S. A. (2014)

Askarian M, Kouchak F, Palenik CJ. 2011. Effect of surgical safety checklists on postoperative morbidity and mortality rates, Shiraz, Faghihy Hospital, a 1-year study. *Quality Management in Healthcare* 20(4): 293–297.

Berrisford RG, Wilson IH, Davidge M. 2012. Surgical time out checklist with debriefing and multidisciplinary feedback improves venous thromboembolism prophylaxis in thoracic surgery: a prospective audit. *European Journal of Cardio-Thoracic Surgery* 41(6): 1326–1329.

Calland JF, Turrentine FE, Guerlain S, et al. 2011. The surgical safety checklist: lessons learned during implementation. *The American Surgeon* 77(9): 1131–1137.

de Vries EN, Hollmann MW, Smorenburg SM, et al. 2009. Development and validation of the SURgical PATient Safety System (SURPASS) checklist. *Quality and Safety in Health Care* 18(2): 121–126.

de Vries EN, Prins HA, Bennink MC, et al. 2012. Nature and timing of incidents intercepted by the SURPASS checklist in surgical patients. *BMJ Quality & Safety* 21(6): 503–508.

Kasatpibal N, Senaratana W, Chitreecheur J, et al. 2012. Implementation of the World Health Organization surgical safety checklist at a university hospital in Thailand. *Surgical Infections* 13(1): 50–56.

Kearns RJ, Uppal V, Bonner J, et al. 2011. The introduction of a surgical safety checklist in a tertiary referral obstetric centre. *BMJ Quality & Safety* 20(9): 818–822.

Lingard L, Whyte S, Espin S, et al. 2006. Towards safer interprofessional communication: constructing a model of “utility” from preoperative team briefings. *Journal of Interprofessional Care* 20(5): 471–483.

Lingard L, Regehr G, Orser B, et al. 2008. Evaluation of a preoperative checklist and team briefing among surgeons, nurses, and anesthesiologists to reduce failures in communication. *Archives of Surgery* 143(1): 12–17.

Mainthia R, Lockney T, Zotov A, et al. 2012. Novel use of electronic whiteboard in the operating room increases surgical team compliance with pre-incision safety practices. *Surgery* 151(5): 660–666.

Vogts N, Hannam JA, Merry AF, et al. 2011. Compliance and quality in administration of a surgical safety checklist in a tertiary New Zealand hospital. *New Zealand Medical Journal (Online)* 124(1342).

Yuan CT, Walsh D, Tomarken JL, et al. 2012. Incorporating the world health organization surgical safety checklist into practice at two hospitals in Liberia. *The Joint Commission Journal on Quality and Patient Safety* 38(6): 254–260.