Go to Zero

Eliminate Wrong Site Surgery & Capture Near Misses through a Real-Time, Data-Driven Systems Approach





From Decision to Incision®









Wrong site surgery is a preventable event that should never occur.



Based on the available databases, extensive review of the literature, and discussion with regulators, wrong site surgery (WSS) occurs at least 2700 times per year in the United States.¹

Every hospital, every year.

A 300-bed hospital can anticipate a report of a WSS event reaching a patient in an operating room an average of once each year.²

1 in 4 surgeons

Surgeons have a 25% chance of performing a WSS at least once in their career.³

More complicated than anyone thought.

Under the guidance of proper processes, checklists, and safeguards, the Joint Commission has declared that WSS is a preventable event that should never take place. However, these *Never Events* continue to occur These events are devastating to the patient, nursing staff, surgeon, and facility where the surgery was performed.

and have not declined despite multiple initiatives to decrease their rate.

Even when protocols are implemented, WSS continues to occur and has not declined since the implementation of the Universal Protocol.⁴ In fact, the number of events reported to the Joint Commission have trended upward since 2005, after the implementation of the Universal Protocol.⁵



StartBox is a system designed to protect the patient every step of the way, from the *decision* in the doctor's office to the *incision* in the operating room.





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Digitize the source of truth



The patient and physician agree on the ⁺ recommended procedure and the

StartBox App records the *Decision for Surgery* to a secure cloud server.

LEFT LEFT RIGHT Lavender Neutral Rose

Color coding



No Go

Wrong *side* surgery is the most common form of wrong site surgery.² The StartBox System utilizes color-coding in both software and hardware to designate laterality and maximize visual awareness to prevent errors.



Real-time alerts

Members of the healthcare team can review the *Decision for Surgery* at any time using the StartBox App, flattening the hierarchy. Errors or inconsistencies can be immediately flagged and reported with the *No* Go button, requiring resolution before the start of the surgery.



Forcing function

The StartBox Kit contains the scalpel necessary to begin the procedure. After the

surgical team listens to the *Decision for Surgery and* performs a Time Out, the kit is opened and the initial incision can be made.



Innovative Technology System to Prevent Wrong Site Surgery and Capture Near Misses: A Multi Center Review of 487 cases.

An evaluation of 487 orthopedic surgery procedures with the StartBox System identified 17 near miss events that could have led to the occurrence of a wrong-site surgery. The use of the System resulted in the occurrence of zero wrong site surgeries.

This evaluation was performed using cases performed by eleven surgeons at six sites using the StartBox System. Over the course of these procedures, medical staff recorded 17 NoGos in the StartBox System. Information for 16 of these cases was either corrected or overridden by the surgeon and successfully completed; one (1) case was postponed to a later date in order to resolve the NoGo and confirm accuracy. The StartBox System was effective in preventing wrong site surgery for each of these near miss events. Six (6) NoGos were due to laterality mismatch. Five (5) NoGos were due to incorrect procedure information including site or description. Six (6) NoGos were due to inconsistent patient information including Table 1: Count of procedures by type of result

Туре	Total
Registered with StartBox	487
Near Misses aka NoGos (%)	17(3%)
Postponed to resolve NoGo	1
Wrong Site Surgeries	0

incorrect date of birth information, naming errors, and an incorrectly recorded sex.

Each of these 17 *NoGos* can be classified as near misses as they involved inconsistencies in the site, laterality, procedure or patient information. The data generated by the StartBox System may improve the safety of future procedures by identifying opportunities for improvement in communication, workflow, logistics and training; and reinforce continued use of aspects of the complex system that are functioning properly. The objective learnings provided by the StartBox System are a unique complement to other safety measures employed at any institution.

References:

² Clarke JR, Johnston J, Finley ED. Getting surgery right. Ann Surg. 2007 Sep;246(3):395-403, discussion 403-5.

⁵ Summary Data of Sentinel Events Reviewed by The Joint Commission. https://www.jointcommission.org/-/media/tjc/documents/ resources/patient-safety-topics/sentinel-event/summary-2q-2019.pdf. Accessed 4/22/2020.



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¹ Seiden SC, Barach P. Wrong-side/wrong-site, wrong-procedure, and wrong-patient adverse events: Are they preventable? Arch Surg. 2006;141(9):931-939.

³ Canale ST. Wrong-site surgery: a preventable complication. Clin Orthop Relat Res. 2005;433:26-29.

⁴ James MA, Seiler JG, 3rd, Harrast JJ, Emery SE, Hurwitz S. The occurrence of wrong-site surgery self-reported by candidates for certification by the American Board of Orthopaedic Surgery. J Bone Joint Surg Am. 2012;94(1):e2(1-12).