

# INTEGRATION OF AN INTERACTIVE STEPWISE PRESURGICAL CHECKLIST INTO AN ELECTRONIC PERIOPERATIVE DOCUMENTATION SUITE

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**Introduction:** Team use of checklists prior to complex or critical procedures improves safety by ensuring that all key factors have been considered prior to beginning. In the operating room, a presurgical time out or safety checklist has been recommended. However, ensuring compliance with this protocol has been problematic. In order to improve compliance with a standardized process, we developed and implemented a stepwise “time out” checklist as an interactive component of an existing perioperative documentation system.

**Methods:** A static individualized electronic patient safety whiteboard had been in place for several years in all of operating room locations at the Vanderbilt University Medical Center. The safety whiteboard is displayed on a 40” LCD panel in all operating rooms. It is visible to the entire team and referenced during the presurgical time out. The whiteboard software was modified to include a “pre time-out” mode which listed the required time out steps in red.(Fig 1) During the presurgical time out, as each item was announced, the circulator nurse checked a box for each item in the nursing documentation application.(Fig 2) As a result of each check mark, the items in the list turned green.(Fig3) At the end of the checklist, the whiteboard noted “time out complete” and reverted to its static state.(Fig 4)

Figure 1

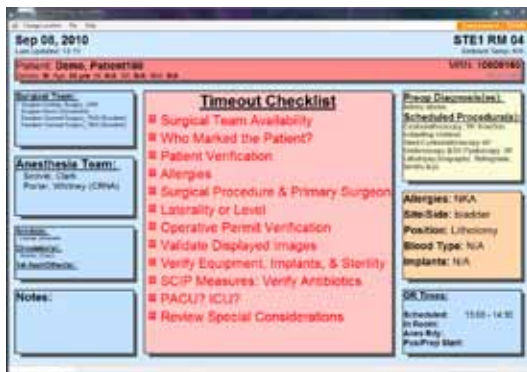


Figure 3

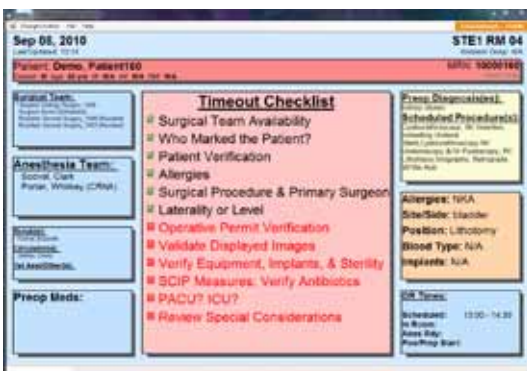


Figure 2

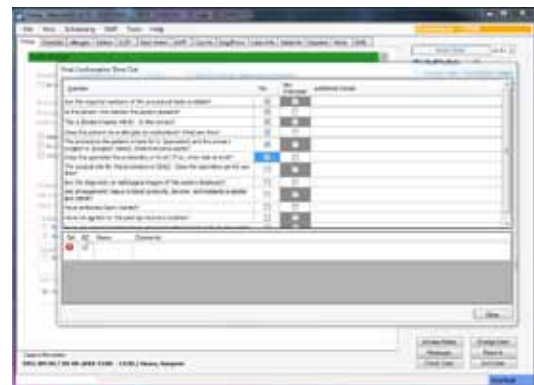
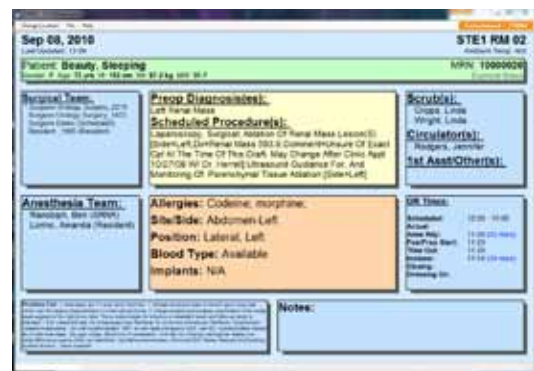


Figure 4



**Results:** Observations of the time out process were recorded prior to and after the implementation of the new software. Eleven items related to time out completeness and quality were scored by observers. In 10 items, the stepwise timeout significantly improved the rate of compliance. In the 11<sup>th</sup>, presence of time out prior to procedure, no statistical difference was found.

**Conclusion:** Software modifications to an existing whiteboard can enhance team compliance with a standardized process by engaging the team in stepwise documentation of each component of a complex sequence. Additional observations will be needed to assess longevity of the improvement.