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WHY COMPLIANCE IN USE OF THE SAFE SURGERY CHECKLIST DOES NOT CONTINUE TO IMPROVE: IN DEPTH ANALYSIS AND REMEDIATION

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BACKGROUND

The Safe Surgery Checklist (SSC) has considerably improved safety for patients undergoing surgery and anesthesia.

Nevertheless, anno 2019, many OR professionals continue to struggle with the correct use of the SSC. Literature consistently shows suboptimal compliance.

GOAL

To observe and improve compliance over time.

To investigate reasons for suboptimal compliance.

METHODS & MATERIALS

Setting: 437-bed general hospital with an inpatient Operating Theatre (6 OR's) and a Surgical Day Centre (4 OR's)

Inclusion: surgery under general or loco-regional anesthesia or deep sedation

Exclusion: urgent surgery (<6 h after admission) and surgery under local anesthesia

Study periods: August 2016, October 2017, February 2019

Closed Record Review of **Sign In** by surgeon and anesthesiologist, **Time Out** and **Sign Out** by the circulating OR nurse

Interventions:

At the end of every study period: presentation of general and individual results during meetings with surgeons, anesthesiologists and OR nurses

At the end of the 2019 study period: a Survey Monkey survey to all OR nurses, seeking for opinions why Sign Out results failed to improve and suggestions for improvement.

Statistical analysis: Chi Square tests and Fisher Exact tests. Results with $p < 0.05$ were considered statistically significant.

The study was *approved by the Committee for Medical Ethics* of az Sint-Blasius.

RESULTS & DISCUSSION



Compared to 2016 and 2017, *overall compliance* didn't improve over time.

Compliance of the surgeon with Sign In improved significantly ($p < 0.01$). Subgroup analysis showed improved compliance in the Surgical Day Center ($p < 0.05$), but not in the Operating Theatre ($p = 0.06$).

Anesthesiologist's Sign In showed already a high overall compliance in 2016. Compliance was unchanged in 2017 and 2019. Compliance was similar in the Operating Theatre as in the Surgical Day Center.

After an improvement of **Time Out** in 2017, compliance decreased non-significantly in 2019. This decrease was entirely due to the Surgical Day Center ($p < 0.05$). In the Operating Theatre compliance improved non-significantly over time.

Similar results were found for **Sign Out**: compliance decreased non-significantly ($p = 0.23$). Again, the decrease was due to the Surgical Day Center ($p < 0.01$), but not to the Operating Theatre ($p = 0.54$).

The *survey for the OR nurses*, searching for possible reasons why Sign Out compliance failed to improve, showed that *time pressure* was the main reason, followed by *forgetting when replacing a colleague* and *distraction* at the end of the procedure. Suggestions to improve compliance included *regular closed record analysis with anonymous or uncovered reporting* and *self-control*.



CONCLUSIONS

Overall compliance with SSC did not improve. The main reason was decreased compliance with the Sign Out by the circulating nurses. The most important perceived reason was time pressure. Suggestions for improvement included regular data reporting and self-control. A follow-up study has been started.