# Staff Tracking and Perioperative Efficiency of Anesthesiologists

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**Objective:** Improving our assessment of the effect of Real Time Locating System (RTLS) technology on the perioperative efficiency of anesthesiologists.

**Methods:** A retrospective chart review was performed for all outpatient and short-stay patients who received General Anesthesia care at our institution between January 2016 and October 2017. Patients included were over 18 years and had ASA classification scores of 1, 2, and 3. Only first cases of the day for individual anesthesiologists were included. Time was used as a measure of efficiency between two groups of anesthesiologists.

Group 1: Anesthesiologists at Main Campus who do not use RTLS
Group 2: Anesthesiologists at Josie Robertson Surgery Center who use RTLS

The outcome measure collected from patient electronic medical records was
DUR: Duration between when patient is admitted to the operating room and initiation of induction only for first case of the day by attending anesthesiologist.

**Results:** We found that anesthesiologists who had access to RTLS technology at JRSC took less time to induction of first case of the day compared with anesthesiologists who did not use RTLS at Main Campus. The difference in time taken was 1 minute and this was statistically significant to $p<0.001$.

**Conclusion:** In the study preceding this, we found that anesthesiologists who had access to RTLS at JRSC performed more efficiently in their preoperative evaluation of patients as well as time to induction for general anesthesia cases. Because of various confounding factors that potentially influenced the increase in efficiency of anesthesiologists with access to RTLS, this follow-up study eliminates these confounding factors by assessing only time to induction of general anesthesia for all first cases of the day by anesthesiologists. We continue to find a small but statistically significant difference in time to induction of anesthesiologists with access to RTLS. This translates directly into increased efficiency in perioperative workflow. Additional investigation and application can help elucidate the value of RTLS on workflow efficiency in the healthcare setting.