## Let's Get to the Core of the Score: A Performance Improvement Project to Achieve Normothermia in Preoperative Area

Primary Investigators: Ma.Gina Magno RN NEBC, Racquel Rostata RN CAPA
Houston Methodist Hospital, Houston, Texas
Co-Investigator: Rose Jennifer Capilitan RN CVRN

**Introduction:** Normothermia is defined as core body temperature ranges 96.8 °F to 100.4 °F (36 °C to 38 °C). Prewarming patients at least 30 minutes before surgery is a known effective approach in maintaining perioperative normothermia. The use of passive and active air force in preventing occurrence of hypothermia during the perioperative period is crucial for better postoperative outcomes.

**Identification of the problem:** Despite the technology and nursing management available to prevent hypothermia, WT3 preop/AOD area normothermia average monthly scores remained below 98%.

**QI question/Purpose of the study**: The goal of this project is to improve performance compliance in achieving normothermia in the preoperative area 30 minutes before the patient goes to the operating room using the score of second quarter of 2022 (Q2) as baseline.

**Methods:** All temperature monitoring equipment and prewarming devices were checked. All malfunctioning equipment and devices were replaced. Daily calibrations of devices were performed before the first case to ensure accurate temperature readings, and chart audits were performed to verify if temperature was placed upon arrival in preop and 30 minutes before operation. Staff in-services were conducted. A poster board was created, flyers were posted as guide for daily documentation and staff coaching was implemented.

**Outcomes/Results:** An increase of compliance was recorded from Q2 to Q4 of 2022 (96.6% to 98.6%). The number of quarterly temperature trends left blank dropped from 10.1% to 1% from Q2 to Q4. Barriers that impacted the normothermia scores were identified as not using core as temperature source, missing core temperature records 30 minutes before patient's departure to the OR and malfunctioning devices/equipment.

**Discussion:** Prevention of unplanned hypothermia and promotion of normothermia remains a priority in preventing post operative complications. Awareness and proper temperature monitoring by nurses through well-functioning equipment and devices are central to normothermia maintenance.

**Conclusion:** The benchmark number for normothermia maintenance were achieved upon project implementation. Monitoring and re-evaluation of patient temperature should be continuously in place for sustained score of the unit.

**Implications for perianesthesia nurses and future research:** Pre-op nurses are responsible for keeping normothermia while in the preoperative area. Daily calibration, equipment checks, and close monitoring and recording of patient's temperature at appropriate time and source are significantly important in patients' safety and preventing complications.