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**Title:** COMPARING ICU NURSING CARE IN POST-PULMONARY THROMBOENDARTERECTOMY PATIENTS VERSUS NON-PTE OPEN-HEART SURGICAL PATIENTS WITH A TIME AND MOTION STUDY

**Objectives:** Describe and Compare ICU Nursing-Care-Activities (NCA) while caring for post-operative PTE patients versus non-PTE open-heart surgical patients in the first 24 hours postoperatively.

**Methods:** A prospective, time and motion study was used to monitor NCA across 4 time frames: shift 1 (immediate postop till 1930), shift 2 (1931-0130), shift 3 (0131-0730), and shift 4 (0731-until the patient was deemed no longer a 1:1 nurse-patient-ratio assignment). Trained observers continuously observed and recorded consented nurses' activity according to 12 NCA within 4 main NCA groupings: (a) Direct, (b) Indirect, (c) Delayed and (d) Non-Patient care activities over a 6-week period in 2013. The observation time frame was divided into 4 shifts to explore patterns in care and offer comparison of the care of PTE patients to non-PTE open-heart surgery patients. The observation was done with the "Yast" Time Keeper application on a tablet device.

**Results:** Overall nurses spent 40% (SD= 10.9) of their time in Direct care activities, 31% (SD= 10.6) in Indirect care nursing activities, less than 1% (SD= 2.4) in Delayed care activities and 28% (17.4) in Non-Patient care nursing activities. A statistical difference was found in mean time spent documenting between nurses caring for PTE (2.1) and Non-PTE (2.4 p = .002) patients. There was not a statistically significant between mean nursing time spent in any of the 4 NCA groups between PTE and non-PTE patients. When all patients (PTE and non-PTE) were combined, differences in time spent in NCA across the postoperative period were statistically significant. Nurses spent statistically significant more time in Direct care of the patient in the immediate postoperative period (shift 1 = 48%) versus shift 3 (29%, p= .001). Nurses also spent more time providing Indirect care in the immediate postoperative period (41%) as compared to other shifts (21% in shift 3, and 26.6% in shift 2, p= <.001).

**Conclusion:** No significant differences were found between PTE and non-PTE open-heart surgery NCA patterns across shifts with the exception of documentation. In the immediate postoperative shift, nurses spent significantly more time performing Direct and Indirect care as compared to other shifts, and significantly less time in Non-patient-related care. As expected, in the immediate postoperative period, nurses are usually at the patient's bedside, performing continual reassessment, and are in frequent communication with the team and family about clinical changes and needs. The differences in activity may be attributed to patient stabilization after anesthesia and fluid shifts and nursing breaks.