

Post-Operative Craniotomy Pathway - PACU to Floor Pilot

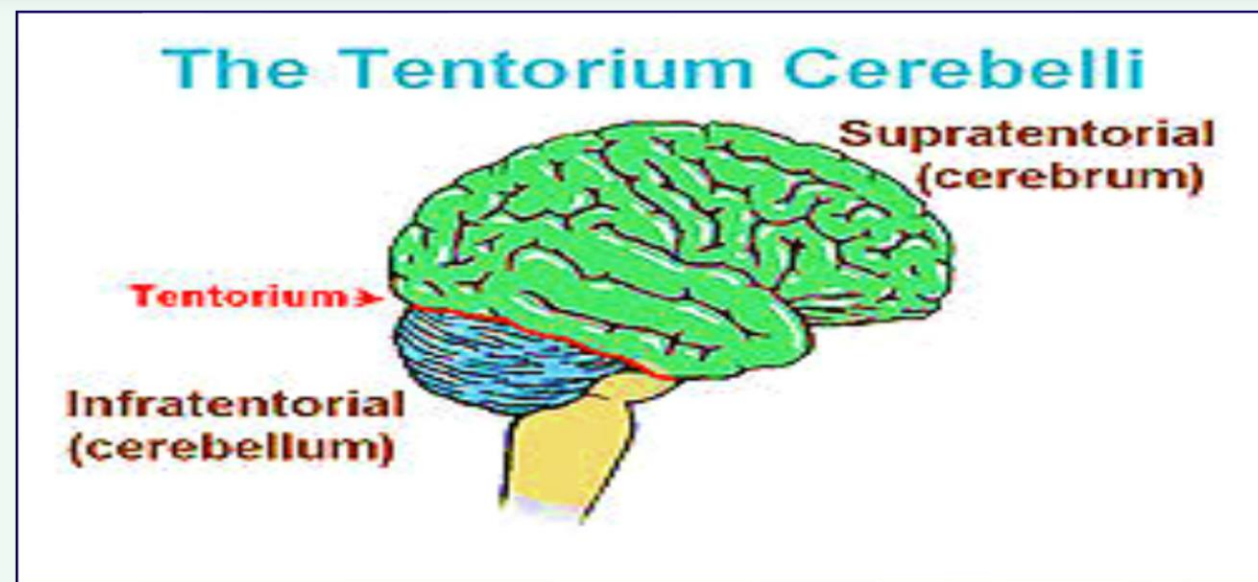
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Background

Patients undergoing supratentorial craniotomy routinely progress from the Operating Room (OR) → Intensive Care Unit (ICU) → Intermediate care → home. Eighty percent of patients are stable and ready for discharge to home the next day. ICU care adds one extra day and multiple care team hand-offs. Increased ICU census also causes delays in throughput for outside hospital transfers, Emergency Department admissions, and OR holds.



Process of Implementation

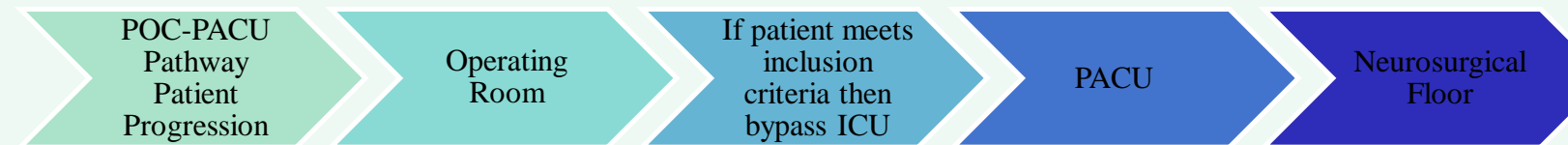
- Multidisciplinary collaboration including: Neurosurgery, Nursing Leadership, ICU, PACU, and Neurosurgical Floor Nursing
- Patients potentially eligible for the Post-operative Craniotomy (POC)-PACU Pathway are identified prior to surgery
- Information regarding patient enrollment in the pathway is communicated to relevant parties including flow managers, PACU charge nurse, and admitting via shared calendar
- Development of PACU protocol care standards including escalation criteria and LOS (minimum 4 hour)
- All staff education through multiple in-services, newsletter communication, and at the elbow support

Implications for Advancing the Practice of Perianesthesia Nursing

- Pilot was successful and program expanded to include multiple neurosurgeons
- Improved PACU staff confidence and competency in caring for the postoperative craniotomy population
- Improved hospital throughput

Challenges

- Standardization of physician order sets
- Timing of surgeon determination of pathway participation impacting PACU flow and staffing
- Overall communication with neurosurgical team, PACU nursing leadership, and neurosurgical floor nursing team regarding pathway participation and progression



Objectives of Project

- Establish inclusion criteria to identify patients who can safely bypass the ICU and receive ICU level care in PACU prior to discharge to floor
- Improve patient safety by reducing number of transfers of care from 3 teams to 2 teams
- Improve patient experience by reducing overall hospital stay (goal 24 hours)
- Decrease length of stay (LOS)
- Improve utilization of ICU resources
- Decrease OR hold time and delayed hospital throughput due to ICU bed availability
- Lower cost of neurosurgical care delivery and optimize health care value for neurosurgical patients

POC-PACU PATHWAY DATA

	Mean LOS	Mean OR Time	Median LOS	Median OR Time	Sum Estimated LOS*	Sum Actual LOS	Days Saved	ICU Days Saved**
Total POC-PACU Pathway Cases	1.90	3:12:30	1.35	2:26:00	219.00	106.58	112.42	28.10
Craniotomy for Tumor POC-PACU Pathway Cases	1.89	3:01:59	1.35	2:34:00	192.00	90.96	101.04	25.26

*assumes 4 day length of stay <https://thejns.org/focus/view/journals/neurosurg-focus/39/6/article-pE12.xml>
**assumes a patient would spend ¼ of their time in the ICU

-57 total POC-PACU Pathway cases
-48 of 57 cases are Craniotomy for Tumor cases (other cases include Chiari Decompression, Craniectomy and Cranioplasty, and Stereotactic Biopsy)

Statement of Successful Practice

- All enrolled pilot patients (n=11) successfully discharged from PACU to floor
- All enrolled pilot patients successfully discharged from floor to home the next day
- Improved patient experience and decreased LOS
- Improved ICU utilization and decrease in care team hand-offs
- Successful pilot transformed into POC-PACU Pathway program

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