

**Middle Meningeal Artery (MMA) Embolization
Interventional Neuroradiology (INR) → PACU Pathway**

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Background Information: Chronic subdural hematoma is a common pathology that typically affects the elderly. The Middle Meningeal Artery (MMA) provides blood supply to the dura matter and feeds the membrane capillaries covering the subdural hematoma. MMA embolization is a minimally invasive procedure combining angiography, microcatheters, and polyvinyl alcohol particles. The procedure blocks blood flow to the system and can promote hematoma resolution. Patients undergoing MMA embolization routinely progress from INR→ICU→Neurosurgery intermediate care→home. ICU care of these patients adds additional days in hospital and multiple care team handoffs.

Objectives of project:

- Establish inclusion criteria to identify MMA embolization patients who are appropriate to bypass ICU and receive ICU level care in the PACU
- Improve patient safety by reducing number of transfers of care from 3 teams to 2 teams
- Improve patient experience by decreasing length of stay (LOS)
- Improve utilization of ICU resources by increasing ICU bed availability

Process of Implementation:

- Multidisciplinary collaboration including Neurosurgery, INR, Nursing leadership, ICU, PACU, and Neurosurgery inpatient Nursing teams
- Patients who are eligible are identified pre-procedure
- Communication regarding patient enrollment in MMA→ PACU pathway is provided to PACU, INR, ICU, and Neurosurgery inpatient teams
- Staff education regarding care of this new population through in-services, Perianesthesia SharePoint site, newsletter communication, and at the elbow support

Statement of Successful Practice:

- Improve patient experience and decreased LOS
- Multidisciplinary team collaboration enhances communication and patient safety
- Improve ICU utilization and decrease in care team hand-offs

Implications for Advancing the Practice of Perianesthesia Nursing:

- Improve PACU staff confidence and competency in caring for the MMA embolization population
- Potential for utilizing this model for future Interventional Neuroradiology procedures
- Improve hospital throughput