

Monitored Anesthesia Care (MAC) Anesthesia Recovery Outside the PACU

The Problem

There has been a gradual increase in the number of procedures performed outside the operating room. Currently around 13% of the anesthetic volume is accounted for by cases done outside the operating room. Additionally with the changing healthcare model, higher acuity patients are being preferentially treated in major teaching hospitals. Unfortunately ICU capacity has not commensurately increased, thus leading to the Post Anesthesia Care Unit (PACU) being utilized as a temporary ICU. This practice of boarding ICU patients has consumed valuable space and resources in the PACU. The problem of resources was most acute on the West campus where the Electrophysiology (EP) lab was a major contributor of patients to the PACU who needed recovery following a MAC anesthetic. All of these changes have led to serious capacity issues in the PACU.

Aim/Goal

Nurses at the Gastrointestinal Unit (GI Unit) have been recovering patients from MAC anesthetics for a few years now with great efficiency and safety. The aim of this project was to replicate this successful model in other areas where interventional procedures under MAC anesthesia were being performed.

This aim required EP holding area/recovery nurses to study an educational module about recovery from MAC anesthesia, complete a post study test, observe MAC recoveries in Phase II of the PACU, and finally to undergo real time evaluation by nurses already competent with this skill. The outcome of this project will be to eliminate the need of patients recovering from interventional procedures performed under MAC anesthesia in the PACU.

The Team

- Irina Fishman M.D. Resident Dept. of Anesthesia
- Mary Grzybinski BSN, RN. Clinical Advisor West PACU
- Marianne McAuliffe MSN, RN. Unit based educator. PAT and PACU
- Mary Ellis BSN, RN Clinical Advisor East PACU
- Jane Noonan BSN, RN East PACU
- Susan Dorion MSN, RN Nurse Manager PAT and PACU
- Lisa Hird BSN, RN Nurse Manager Cardiac Cath Lab
- John Whitlock MS, RN Clinical Nurse Specialist, Invasive Cardiology
- Sheila Barnett. MD Interventional Procedures Committee Chair.
- Eswar Sundar MD Director of PACU

The Interventions

An educational module was developed regarding MAC anesthesia that focused on the recovery characteristics and common side effects of commonly used intravenous anesthetics. Nurses also reviewed the BIDMC Moderate Sedation policy that covers commonly used drugs including fentanyl and midazolam. Initially a small group of cath lab holding area/recovery nurses attended a half a day session where they watched PACU nurses recover patients from MAC anesthesia in Phase II. However this practice was subsequently abandoned, as explained below. All cath lab holding area/recovery nurses attended a policy review session with the PACU educational resource nurse. This session was regarded to be very useful as it allowed nurses to raise specific questions and concerns regarding the BIDMC policy surrounding MAC recovery. All cath lab holding/recovery nurses underwent a post test and were credentialed by their peers who had undergone the process previously.

The Results

100% of EP nurses have completed the online module that is available on MyPortal, 100% of them have attended the policy review. A formal roll out date is being awaited to allow EP nurses to begin recovering patients from MAC anesthetics within their perspective holding areas.

Lessons Learned

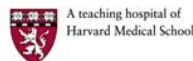
Sending EP nurses to observe MAC recovery in Phase II of the PACU proved to be unhelpful. The observing nurses benefited little from this process as they already had experience administering moderate sedation, recovering patients, and managing simple ventilation/oxygenation and hemodynamics issues. On the other hand, small group sessions with the PACU educational coordinator proved to be more useful.

Next Steps

This training and credentialing program will be used to train nurses in other procedural areas like radiology, ECT, and also to re-credential GI nurses.



Beth Israel Deaconess
Medical Center



A teaching hospital of
Harvard Medical School

THE SILVERMAN INSTITUTE
For Health Care Quality and Safety

For more information, contact:
Eswar Sundar MD. Director of PACU
esundar@bidmc.harvard.edu