Anesthesia Utilization in Advanced Endoscopy

The Problem

Our unit has observed a marked increase in the number of complicated patients requiring anesthesia for advanced endsocopy procedures, resulting in a need to improve efficiency to accommodate the patients within the work day.

Aim/Goal

Our goal was to improve the day time utilization of anesthesia cases. To assess the efficiency, we collected daily case volume, start and end times using the Anesthesia Electronic record. Using these times, we calculated the % of cases finishing after 5:30pm. We used October 2009 as our baseline before we implemented the measures described below.

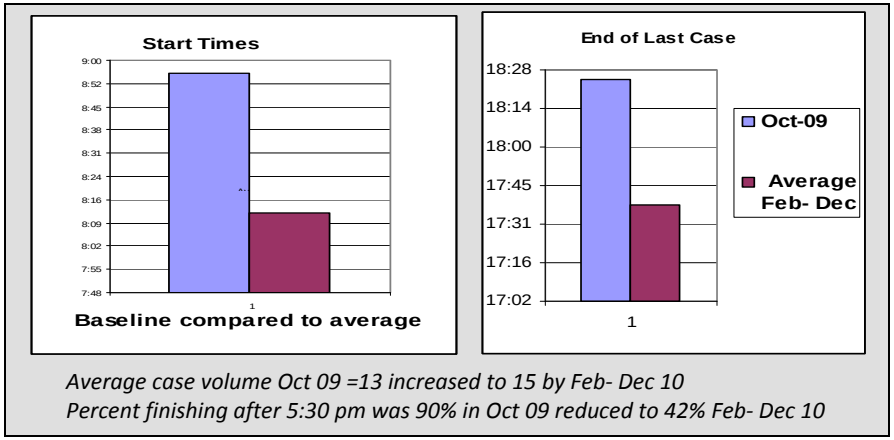
The Team

- *Nursing*: Janet Lewis RN, Michele Boucher RN, & Hanako Yamanako , Julie Doherty RN, Julie D'Souza, RN & Sharon Goodwin, RN and the ST 4 Nursing Team
- *Gastroenterology/ Advanced Endoscopy:* Tyler Berzin MD, Douglas Pleskow MD, Mandeep Sawhney MD, Ram Chuttani MD and Jennifer Faitel PA
- *Anesthesiology*: Sheila Barnett MD, Lindsey Farragher NP and the Anesthesia MD GI Interest group: Y Li, E Sundar, C Hendricks, R Kveraga, F Shapiro, D Feinstein, R Cohen, R Steinbrook, MA Vann

The Interventions

- Restructured the role of the Nurse in charge of the unit. The Nurse leader in collaboration with the other members of the team is now in charge of the flow through the unit and trouble shooting delays.
- We changed our pre-procedure assessment process to 'open access' system. Patients arrive on the unit and are evaluated by our NP (LF), they are no longer required to attend preoperative assessment clinic. This was a significant barrier in booking cases.
- We created slider check lists outside of each patient bay so all members of the team are able to see what elements of the pre-procedure assessment are still needed before the patient can go into the room.
- We recognized that the H&P was a significant obstacle for the GI fellows, and a shared electronic medical record using data collected for the anesthesia preoperative assessment was created. This minimized the amount of duplicate data entry, while still meeting appropriate standard

The Results/Progress to Date



Average case volume Oct 09 =13 increased to 15 by Feb- Dec 10
Percent finishing after 5:30 pm was 90% in Oct 09 reduced to 42% Feb- Dec 10

Lessons Learned

1. We realized certain cases take more time, are more complex and need to be prioritized at the start of the day. This includes cases receiving general anesthesia, ICU patients and certain procedures such as a Spirus. At rounds each morning the order of cases is now specifically addressed so the nurse in charge can arrange for patient transport.
2. We had several delays due to a lack of beds in PACU for GA cases, now we call in the morning to notify the PACU of any pending GA cases and give them time estimate so they can plan staffing.
3. After realizing it was difficult to call for anesthesia help when needed, we changed the phones in each procedure room so they now have direct call lines for an anesthesia stat, to the OR desk and to the PACU.
4. There can be considerable daily case volume variation from 10 to 20 cases, leading to difficulties with scheduling

Next Steps/What Should Happen Next

- We are going to start reporting monthly averages to all members of the unit
- We are also increasing our volume on Stoneman 3 and will be implementing a similar system
- We will be flowing sedation case volume on St 4 as we realized this may account for some of the case volume variation.

Beth Israel Deaconess Medical Center | A teaching hospital of Harvard Medical School | The Silverman Institute For Healthcare Quality and Safety

For More InformationContact
Sheila Barnett MD, Anesthesiology
sbarnett@bidmc.harvard.edu