Overview of the Site Visit Day

Monday, May 19, 2014
6:30 AM – 3:00 PM

Institute for Healthcare Improvement (IHI) Team:

- Gerald B. Healy, MD, FACS, FRCS, FRCSI
- Alexander A. Hannenberg, MD
- Charlotte L. Guglielmi, RN, BSN, MA, CNOR
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Activities:
- Observations of case starts and cases in progress, including staff interaction, practices, clinical data use and availability, preparation and positioning of patients, and handovers from preoperative area
- Tours of preoperative and postoperative areas
- Interviews with staff in the areas listed above at their worksite
- Group meeting with perioperative leadership – anesthesia, infection control, physician leaders, nurses, CRNAs, and managers
- Group and individual interviews with anesthesiologists, surgeons, residents, CRNAs, and OR frontline staff
- Data review including claims payment history, NSQIP, operational and quality measures, and safety climate survey results
- Review of selected policies and overall OR schedule for May 19, 2014
- On-site summation of findings

The Any Hospital leadership assembled an engaged team for this visit. The IHI team was impressed by a number of surgeons who were knowledgeable about processes. The perioperative staff expressed great pride in Any Hospital, indicating they had some of the best practitioners available. They also acknowledged there were identifiable problems, but had plans to tackle them. There was a sense that Any Hospital was good at making changes, but lacked a focus on sustainability. Committees and structures were in place to provide oversight and direction to the perioperative service.

Strengths:
- A few observed time-outs were text-book quality.
- OR schedule includes unusually detailed case information – equipment, blood availability, patient position, postop destination.
- Selected services have implemented TeamSTEPPS.
- Staff discussed several quality improvement initiatives and described their role and changes they'd made. They included: Handoffs, hand hygiene, TeamSTEPPS, time outs, communication.
- Staff demonstrated good process for checking surgeon privileges.
- Specimen handoff during one observational tracer showed good closed-loop communication.
- Several nurses demonstrated good assessment and patient teaching skills during tracer observations.

The observations below focus on areas for improvement. They are organized into four areas for simplicity.

1. Pre-operative patient assessment process.
2. Professionalism and resident supervision
3. Teamwork and communication
4. Infection control practices
Recommendation 1: Pre-operative patient assessment process.

Observations

- Preoperative staff assemble data from multiple disparate sources.
- Multiple, competing IT systems impair smooth patient flow.
- Some staff report needing five or more passwords.
- Additional documentation is in paper format.
- Medication list difficult to access and sort through for admitting nurse.
- Unclear process for which patients go through pre-operative testing.
- Production pressures led to "rushing" vs streamlined flow.
- Inconsistent processes for sign-in and/or preop huddle and post-induction time out.
- Circulating nurse’s first encounter with and assessment of the patient appears to occur in the OR. This may seem like an efficiency strategy; however, it can lead to communication challenges and information deficits.
- Lack of a briefing prior to the start of a tracer led to circulating nurse scrambling for needed equipment during the case.
- Team observed several inconsistencies in how counts were done.

Recommendation 2: Professionalism and resident supervision.

Observations

- Surgeons running two rooms extended anesthesia time for patients and “wait time” for OR teams.
- Residents reported limited anesthesia and surgical faculty clinical availability particularly on nights and weekends.
- Nurses reported residents often obtained consent without staff surgeon input using OR schedule to identify procedure.
- Surgical coverage for Any Hospital reported to be compromised by senior resident coverage at alternate hospitals.
- Geographic distribution of patients stretched the effectiveness of coverage of residents, rapid response and code teams.
- Staff unclear about the chain of command for deteriorating patients and reported delays in getting assistance.
- Teams felt OR scheduling process could be improved. Last-minute changes and inconsistent process led to scrambling on day of surgery.
- Staff reported lack of regular training, feedback on performance, and explanations of process changes.
- Multiple patients were boarded overnight in various locations with unclear medical and surgical coverage.
- Multiple communication breakdowns were observed leading to delays and rework.
- Nurses reported great variability in resident skill and judgment in recognition of patient deterioration and appropriate intervention.
- Team observed no debriefs at the end of cases.
Recommendation 3: Teamwork and communication.

**Observations**

- Practices were notably siloed. Each discipline worked independently with little connection to the others.
- Several instances were observed where "intimidating" personalities clearly dampened open communication.
- Multiple distractions during OR set up were observed to the circulating nurse and the scrub person during the set-up and count processes.
- Staff describe a sense of division between the services and care units.
- Multiple new forms were implemented reportedly without staff input or testing. They appeared redundant and difficult to use.
- Universal protocol was implement inconsistently, at best.
- Appeared to be little communication between services in multispecialty cases. Patient were repositioned, new instruments asked for and processes changed mid-stream.
- Non-standard prep and draping processes were noted.
- Briefings started with staff engaged, but quickly deteriorated to multitasking and distraction.

Recommendation 4: Strengthen infection prevention efforts.

**Observations**

- Skin preps were inconsistent, non-standard and often differed from manufacturers' recommendations.
- Shared resources were wheeled from room to room increasing risk of infection.
- Communication between OR and CS repeatedly mentioned. Teams cited broken instruments, unavailable instruments and incomplete sets leading to delays and cancelled cases.
- Poor hand hygiene practices were routinely observed by all levels of practitioners.
### Suggested Actions

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<th>Recommendation</th>
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| **Recommendation 1:** Preoperative patient assessment process. | - Evaluate linking IT systems to streamline the preoperative data assembly process.  
- Develop algorithm and consistent process for patients requiring pre-operative evaluation.  
- Standardize processes around preoperative briefing and huddle and post-induction time-out.  
- Evaluate case starts to avoid "rush-to-the-room" effect.  
- Revisit briefing process, handover from pre-op to OR and clarify essential elements.  
- Standardize and monitor count process. Post results regularly. |
| **Recommendation 2:** Physician professionalism and resident supervision. | - Evaluate physician and resident coverage patterns particularly on off shifts.  
- Improve patient flow to minimize "boarding" of patients.  
- Develop and disseminate chain-of-command and escalation algorithm for all patients independent of location.  
- Process flow coverage for various geographic locations to assure expedient access. |
| **Recommendation 3:** Teamwork and communication. | - Consider expansion of TeamSTEPPS to additional high volume services.  
- Construct and disseminate consistent escalation plans that are condition-based and clear.  
- Assess the settings where critically ill patients are cared for – PACU, ICU, and transport. Develop standards to ensure that the same level of care is maintained.  
- Engage front-line staff in development of new forms and processes.  
- Standardize expectations of briefing process to assure efficiency and minimize distractions. |
| **Recommendation 4:** Strengthen infection prevention efforts. | - Develop consistent practices for skin preps and monitor their use.  
- Revisit handwashing practices; monitor and post non-compliance.  
- Improve communication between OR and CS.  
- Evaluate equipment needs and usage to minimize shifting from room to room mid-case. |
The IHI team was impressed with some of what they saw at Any Hospital. There was broad and enthusiastic participation by all levels of staff throughout perioperative services. Staff demonstrated great pride in their organization, the colleagues they worked with, and the care they provide. There were several good practices that required diligence and focus to implement. But all admitted that sustainability is a challenge and will need to be addressed. Any Hospital has implemented various structures and processes to coordinate efforts and engage all levels of staff. Focused efforts should begin with revisiting basic practices, standardizing and monitoring to assure compliance. Leaders discussed several new committees and oversight structures recently implemented. While relatively new, these will serve as good vehicles to formalize these efforts.