ANESTHESIOLOGIST AS LEADER OF COORDINATION-OF-CARE TEAM FOR COMPLEX PEDIATRIC PATIENTS REQUIRING MULTIPLE PROCEDURES

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THE PROBLEM

- Frequently, both a surgical procedure and an anesthetized radiological procedure are scheduled for complex pediatric patients in very close time/date proximity.
- Unfortunately, these procedures are planned by different schedulers from various subspecialties, leading to uncoordinated care.
- In the past, patients would either have these procedures performed on separate days, have one of the procedures cancelled because of fragmented scheduling techniques, or the unplanned procedures would be acutely linked and completed, but at the cost of delaying care for other patients.
- This fragmented system was an area of significant patient dissatisfaction, was inefficient, and was even a safety issue if the procedures were not scheduled in clinically appropriate order.
- It was also frustrating to hospital staff, as it led to unplanned hand-offs between care areas.
- The economic burden to the hospital includes operating room and radiology suite delays if these areas suffer unintended downtime due to scheduling errors. For families, the cost includes making unnecessary separate trips to the hospital for repeated admissions and anesthetics over a short time period, with associated excessive loss of work time for parents and/or school time for the patient.

THE PLAN

- To address these problems, we have created a COMPLEX-COORDINATION-OF-CARE TEAM (CCOC).
- Goals of this initiative include reducing unjustified variation in utilization and expenditures, and improving the safety, effectiveness, timeliness and efficiency of patient care.
- This program maximizes planning efforts for patients requiring multiple procedures under general anesthesia often in disparate hospital locations, by providing a single continuous anesthetic for all requested procedures.
- Each day, a nurse practitioner (NP) is on call to accept requests for complex coordination of care. A web-based mailbox has been created, within the electronic medical record, whereby the NP receives requests, then synchronizes basic clinical data about the patient, and sends the requests to the anesthesiologist that directs our Coordination-of-Care team.
- Furthermore, as proceduralist teams become familiar with the program, they are now actively seeking CCOC team assistance with coordinating such single continuous anesthetic experiences for their patients.
- Lastly, some potential CCOC patients are revealed during preoperative anesthetic evaluation in our clinic, when an NP notes that the patient has two upcoming procedures, separated in time/date.
- All requests are reviewed by our consultant anesthesiologist, and once created, the proposed plan is sent via e-mail to the CCOC team for review/discussion.
- Our care model includes the sedation nurse practitioner in charge, all anesthesia nurse practitioners, the lead operating room charge nurse, the radiology supervisor, the radiology schedulers, and the Anesthesiologist-in-Charge (AIC) group.
- Once arrangements for all aspects of care are confirmed, the CCOC anesthesiologist sends the final care plan via e-mail to all parties involved, and also saves it into an electronic 'CCOC form' that becomes part of the patient's permanent electronic record.
- Each personalized care plan requires about 2 hours cumulative time to adequately schedule.

HURDLES

- Process for disseminating program description to all care providers.
- Overwhelming number of cases that could benefit from such coordination.
- Proceduralist cooperation in modifying block time to allow for new care approach.
- Gathering data to justify our assumptions about the benefits of the program.
- Developing an Information Technology system that would query for any two or more operative/scan procedures scheduled for a particular medical record number during a delineated time period, allowing investigation of possibility of creating a combined care sequence for the requested procedures.
- Have already obtained IRB approval (IRB# 120682) for a phone call patient/family satisfaction survey, to review this ongoing quality and safety initiative.

CONCLUSION

- This program allows safer, more efficient, and also more cost-effective patient care.
- Medically complex children who might be a high risk for metabolic derangement during required preoperative fasting periods, or children known to be either a difficult airway or difficult iv access patient, or both, clearly benefit significantly from undergoing fewer general anesthetic experiences.
- Patients’ families requiring these combined care procedures can now expect a smoothly executed hospital experience, greatly enhancing patient satisfaction in this area of care which had been historically burdened by patient complaints.
- Allows performance of the full spectrum of surgical episodes with fewer hospital trips, anesthetics, and recovery times, as well as fewer days required away from jobs and school for working parents and our patients.
- Minimizing delays and cancellations has allowed for maximal utilization of both operating room and imaging suites.
- Since December 2011, we have successfully coordinated the care of over 100 patients.

FUTURE GOALS

- Develop an Information Technology system that would query for any two or more

CCOC ALGORITHM

- MD
- NP
- CCOC Anesthesiologist
- MRI/CT
- OR Charge Staff
- FINAL CARE PLAN
- Prep Clinic
- AIC Group

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- MRI/CT
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IMPLEMENTATION

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- Plan to investigate the financial benefits of the program.