Incorporating Regional Anesthesia in a Community Hospital

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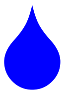

Financial Conflicts

- Dr. Brian Kashin
  - None
- Dr. Gregory Ip
  - None

Learning Objectives

1. Describe the tools to enhance regional anesthesia in a community hospital setting
2. Describe the set up of a parallel processing model in a community hospital
3. Describe the maintenance and evolution of regional anesthesia in a community hospital setting

How to Develop a Regional Anesthesia Program?

- We don’t know!
- No Guidebook - Organic progression over 16 years!
- Outline: Our Obstacles
  1. Administration

     Block room capital, structural and ongoing program costs
  2. Surgeons

     And their patients
  3. Colleagues

North York General Hospital

NYGH

- Provides acute, ambulatory and long term care at three sites
- General site (main site)
- Branson (ambulatory)
- Seniors Health center (in patient and outpatient)
- Located in the Central LHIN

NYGH

- One of the largest cancer care programs in the GTA
- Largest center for orthopedic joint assessment and surgical volumes in the Central LHIN
- Regional center for Cataract Surgery
- Total of 80 surgical beds: (36 orthopedics, 44 divided among all sub-specialties)

NYGH Surgical Program

- 30 staff anesthesiologists (16 rotating block docs)
- 12 OR's, 4 endoscopy rooms, 1 cystoscopy room, busy OB
- 4 Bay Block Room, 4 ultrasounds – throughput 3,196 patients (1 year)
- 1,601 hip and knee replacements
- 1,218 hernias
- 166 mastectomies

NYGH Turns 50

2002-2006

- One funded Anesthesia Assistant position
- Standardized Care Plan for Total Joint Arthroplasties including nerve blocks
- Weekly Education Rounds including Regional Anesthesia
- Ultrasound Training
- Computer Assisted Physician Order Entry
- Standardized pre and post op analgesia order sets
- Acute Pain Service
- Patient satisfaction scores in surgery linked to adequate analgesia

Vincent Chan

- Provided an excellent opportunity to learn
- Allowed constant communication
- Addressed block failures and pitfalls
- Provided HUGE amount of encouragement to a NON-regional anesthesia provider

2007

- First ultrasound is purchased
- Centralized equipment for the block room
- Training additional members of the Anesthetic Care Team to relieve staff to perform blocks
- Upper extremity surgeon hired requiring more variety of blocks and hence increased demand
- Well established documentation system for charting regional blocks
- Education and instructions provided for patients in pre-op clinic as well as post operatively

2007-2012

- Total joint assessment center is ramping up and demand for a more efficient process of providing surgical care
- Many regional blocks performed as part of an opioid sparing anesthesia and reduction in persistent post surgical pain
- Ultrasound training and basic skills amongst 80% of our Department
- Well established Anesthesia Care Team to help with blocks
- Single room block room established
- Purchase of one additional ultrasound machine
- Fully automated gas machine and EMR

Block Room Est 2012
C
stryker

Justifying a Block Room

- Improved OR efficiency
    - Shown 9-50 min efficiencies dependent on block
    - May be able to add another case (3 total joints to 4 total joints)
- Improved patient care
    - Increased use of regional anesthesia
- Time savings
    - Bypass PACU, quicker discharge
- Resource savings
    - Avoid overtime
    - Avoid longer stays for pain, nausea/vomiting

Justifying a Block Room

- More quality time and less surgical team pressure
  - Higher success of blocks
  - Adequate soak time
    - Avoidance of general anesthesia
    - Less narcotic use
    - Ability to re-perform block or perform rescue blocks
- More ideal anesthetics performed that included regional anesthesia techniques that would otherwise not be performed without the perceived time savings
- Ideal area for teaching and sharing of information
- Much easier to justify for a teaching hospital
- Help support the priority program of the hospital

Practical Issues

- Close to the Operating Room
- Enough space for 2-4 bays depending on volume
- Support most procedures (spinals, thoracic epidurals, all regional blocks, arterial and central lines)
- Storage for all the equipment
- Appropriate Staffing (RN, AA)

Obstacle # 1 Administration

- Well laid out plan prior to meeting with administration
  - All research should be completed and questions should be answered
  - All parties involved have been educated and bought in the talks
    - Eg. Catheter Program - PACU Nursing, pharmacy, homecare/Pain Service follow-up, floor nursing, block room staff
  - All costs and savings should be calculated
    - Eg. Catheter Program – Equipment, drug costs vs inpatient days saved
  - Well laid out roll out plan and measurement of outcomes and complications
    - Graduated trial periods, cases, surgeons, identified

Obstacle # 1 Administration

- Decreased hospital stay
  - Earlier discharge times
  - Bypassing PACU/Direct to Phase 2 recovery for Day Surgery Cases
  - Increased turn over time
  - Improved cost effectiveness
- Alignment of hospital priorities and culture
  - "Patient and Family Centred Care" "Teaching Centre of Excellence"
  - External pressures – reduction of opiods

Obstacle #2 - Surgeons

- They will always be the primary physician and have the patient's ear and education/expectations begin in their office
- Avoid a confrontational relationship
- To start:
  - 2004-2006 - Regional anesthesia introduced as part of a multimodal pain management model for total joints
  - Presented to the whole group of orthopaedic staff as "standard of care"
  - Presented as better patient care AND
    - Less work for them
    - Little or less intrusion on operating time (Block Room)

Expanding the Regional Program - One Procedure at a Time

- Target surgeons with influence but are open minded
  - Short evidence-based presentation
  - Detailed Plans already in place prior to your meeting
    - Eventual Goals - Plan to convert inpatient shoulder arthroplasties to outpatient procedures, earlier discharges, less narcotic prescriptions
    - What benefits will the surgeons see other than improved patient care?
      - Administration recognition and support for their program
- Maximize success to show results – collect your data!
  - Minimize number to experienced staff
  - Research well
- Once the sub-specialists are convinced, the others follow

Surgeons and new procedures

- "Case Report" - A surgeon who won't believe
  - Middle aged surgeon, expert in the field of breast cancer surgery
  - "I see the evidence you're presenting but my patients don't have pain, I find it hard to believe"
- Dilemma – surgeons who base decisions on own experience and perceptions
  - Move on to the next surgeon!
  - Surgeon's who are not set in their ways, newer younger surgeons open to change
  - Trial period with set metrics
  - Once there is success approach rest of surgeons
  - Surgeons believe surgeons
- May need to wait for surgical staff attrition….

Obstacle #3 – Anesthesia Staff

- Goals of our Regional Program:
- In our non-academic hospital,
  1. Every practitioner has a minimum competency level in regional anesthesia
  2. Every patient will have the options of regional anesthesia regardless of practitioner
  3. Every practitioner will follow pre-set standardized care plans involving regional anesthesia

Changing the Culture of a Department

- How did we address a department where regional anesthesia was considered an option and risky procedure to one where it is best practice and easy to learn and safe
  1. Make Regional Easy:
     - Incorporate ultrasound, keep equipment uniform
     - Educate - weekly educational rounds
  2. Make regional mandatory:
     - Developing Standardized Care Plans for specific cases
     - Maintaining Continuity of Care
  3. Last option - Change staff!
     - Natural attrition and hires – 2 fellowship trained in regional anesthesia

Making Regional Easy - Keep Equipment Uniform

- Trial of different ultrasounds, echogenic needles, catheter equipment
- Decide on one brand of equipment to decrease choice and confusion
  - Try to decide on the easiest to use equipment
  - Cater to the lowest skilled staff
    - Ultrasounds that require the least manipulation but still meet the needs of the more skilled
    - Catheter sets that require least skill and still serve the needs of the population and procedure

Making Regional Mandatory – Standardized Care Plans

- Multimodal anesthesia for Total Joint Surgery 2005
  - Including femoral nerve blocks for TKA's
- Outpatient Interscalene Nerve Blocks for Major Shoulder Surgery 2013
- Regional Anesthesia plus sedation for open herniorrhaphy 2015
- Regional Anesthesia for Major Breast Surgery 2016
  - PEC blocks, serratus, ESP blocks
- Surgeon Specific – surgeons who prefer regional anesthesia
  - Plastic surgery
- QBP's – open TAH BSO's

Making Regional Mandatory - Maintaining Continuity of Care

- Anesthesiologist in the OR should be the one performing the peripheral nerve block
  - Maintains continuity of care, unlike sub-specialized centres where block doctor may do nerve blocks for OR anesthesiologist
  - Maintains proficiency across department in regional anesthesia
  - Encourages education and cross pollination of ideas with proficient staff and residents – more important in a non-academic centre?

How Do we Assess Competency?

- Why do we need to?
  - Develop consistency across all staff; quality and efficacy; confidence from our surgical peers

- Two groups of anesthesiologists:
  1. Recent graduates following ASRA/ESRA Guidelines for Regional Anesthesia Training
  2. Practicing physicians with minimal or no regional experience

Competency Assessment

- How do we assess each other's regional skills when we are all FRCPC trained independent practitioners?
  - No hiding in a Block Room
  - Minimal competency for all staff - Standardized Care Plans
  - Block Doc's and regional anesthesia leaders
  - Promote sharing of information and skills
  - Promote asking for assistance
    - Catheters
    - Procedures with increased complications
    - Newly introduced nerve blocks
    - Tracked complications

Summary

- No Recipe for our successes
  - Our experience was over many years
  - Actively followed what we thought was the natural advances and course of anesthesia
- Obstacles
  - Mainly people! Administration, Surgeons, Anesthesia Colleagues
  - Get a Block Room!