Beaumont

DRAFT: Troy Beaumont – ERAS protocol: Spine Surgery (Anterior Cervical Fusions & Revisions)

Aug 12, 2019

STTAR Clinic

- Surgeon provides patient with educational booklet and encourages patient to attend pre-op STTAR (Surgical Testing Accelerated Recovery & Teaching) clinic
- Surgeon office calculates the Morphine Equivalent Daily Dose (MEDD) on all spine surgery patients using the ADMG Opioid Dose Calculator and includes the MEDD in the boarding case notes
- Case will be boarded with "ERAS" in case notes
- Patients phone screened at a scheduled appointment time by screening nurse. STTAR clinic appointment made at that time.
- Patients who attend STTAR clinic (ideal time is 4 weeks prior to surgery, but not over 30 days) will be instructed to start/increase physical activity, use incentive spirometer at least 30x daily, focus on stress/anxiety reduction, shower with CHG 3 times before surgery (2 nights pre-op, 1 night pre-op, and morning of surgery), drink Pre Surgery Ensure 2 hours before arrival time, and that anticipated discharge with be on POD #1.
- STTAR Clinic patients provided with: incentive spirometer, Pre Surgery Ensure, CHG, and education booklet.
- STTAR Clinic patients informed that they will spend 1 night in the hospital if they are having a one or two- level fusion. Three levels or more will be 2 nights
- PA will complete "progress note" and education. Medical assistant or RN will complete bloodwork. Occupational therapy will see patient and Physical therapy as needed.
- Pre-op labs sent: CBC w/ diff, CMP, PT/INR, PTT, UA w/ C&S, T&S, HbA1C, & S. Aureus Screen. Urine nicotine level on smokers (smoking within 1 year)
  – If Hgb < 10, Hgb A1C > 7.5, (endocrine consult) and/or albumin < 3.5 STTAR clinic notify surgeon and refer to PCP for pre-operative management/optimization. If UA and/or urine C&S is abnormal, notify surgeon & surgeon to determine if treatment needed pre-operatively. If S. aureus screen is positive STARR clinic to direct patient to fill Bactroban Rx provided by surgeon's office and use bid for full 5 days pre-operatively. If 10 doses are not completed, patient to receive iodine nasal swab in preop and continue the Bactroban doses postop. If positive for MRSA, pre-operative antibiotics to be ordered = Vancomycin
- Discontinue anticoagulants before surgery and call cardiologist to monitor
- Complete MSSIC surveys
- MEDD- If > 80 mg- get pain clinic consult for pain management- Document in notes
- Follow up with PCP
- RN or MA to perform MST (malnutrition screening tool)
- Bladder scan

Pre-op

- Preop Bladder scan. Record volume
- Start 2 IVs, one 18G, other may be 20G
- Pre-op antibiotics as ordered
- Neurontin 100 mg po given – hold if patient over 70 years old, with pre-existing confusion/sedation, or with renal dysfunction
- Acetaminophen 1000 mg po
- Famotidine 20 mg IV
- Carboxyhemoglobin if prior h/o tobacco use
- Anesthesiologist completes PONV Risk Assessment

- Minimize pre-surgical narcotics & benzodiazepines, especially in elderly patients
- Draw blood sugar on patients with HgA1C >6

Intra-op

- Ketamine 0.25mg/kg IVP at induction. Maximum dose 25mg
- Lidocaine 1.5 mg/kg bolus followed by 2 mg/kg/hr infusion
- Surgeon may use local anesthetic at surgical site if appropriate
- Monitor glucose every 90 minutes if FBS>200 or <60, or if treated with insulin
- Solu-Medrol 125mg (No decadron)
- Zofran 4 mg IV at end of case
- Administer additional antiemetics per PONV Risk Assessment
- Goal directed Fluid therapy
- Goal is no additional narcotics administered after induction. (low dose fentanyl with induction acceptable. Anesthesia providers should discuss if additional narcotics are needed)
- No Valium if patient receives methadone
- No Toradol

PACU

- Remove 2nd IV in PACU

Post-op

- Identify
  - Physician to Nurse order to indicate this is an ERAS patient
  - Non diagnosed diabetic patients with a HbA1C >6 will have an internal medicine consult
- Medications
  - Ultram 50 mg po q 6 hours prn until discharge for mild pain- initiate POD 0 on floor
  - Acetaminophen 650mg po q6 hours until discharge - 1st dose to be given 6 hours after pre-op dose
  - Neurontin 100 mg po q8 hours for 72 hours - hold if patient over 70 years old, with pre-existing confusion/sedation, or with renal dysfunction
  - Avoid the use of valium if methadone used.
  - Zofran 4mg IV every 8 hours prn or Reglan 10mg IV every 6 hours prn
  - Roxicodone 5mg po every 3 hours prn for moderate (pain score 4-6) pain
  - Oxycodone 5mg po every 4 hours prn if > 70 years old.
  - Roxicodone 10mg po every 3 hours prn for severe (pain score 7-10) pain
  - 0.5mg Dilaudid IV PRN q3 for breakthrough pain (only after oral meds have been tried first)
  - Solumedrol 125 mg IV q 12 hours x 3 doses
  - Robaxin 750 mg q 6 hours po ATC
  - OR use Zanaflex 4 mg po q 6 hours prn if patient is > 65 years old
  - Colace 100 mg po qd or Senna 2 tabs po bid- follow bowel regimen
  - Post-op antibiotics given per protocol
  - Diet as tolerated on DOS as appropriate at nurse discretion
  - May apply ice to shoulders

- Activity
  - Patient gets out of bed on day of surgery
  - Remove Foley within 24 hours POD 0
  - Bladder Scan, routine, as needed, if patient distended or unable to void post op
  - Physician to nurse order to Saline Lock IV when tolerating clear liquids

    - Incentive spirometry 10 x/hour when awake
    - Occupational Therapy consults and Physical Therapy prn
    - Ambulate in hallway as tolerated.
    - SCDs as ordered
- Labs
    - Check blood sugar if HgA1C >6 POD #1 and #2
    - Follow sliding scale per Internal Medicine if known diabetic

Discharge/Home

- Patient discharged home using ERAS discharge instructions
- Patient receives discharge phone call from floor nurse
- If patient is in research program, follow up with research nurse
- Percocet/Norco as ordered
- Ultram 50 mg po q 6 hours prn
- Robaxin 750 mg po q 6 hours prn
- Zanaflex 4 mg po q 6-8 hrs prn (if over 65 years)
- Colace 100mg po bid or senna 2 tabs po bid