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Box 1

Enhanced Recovery Pathway

• Evening before surgery: carbohydrate loading drink; may eat until midnight

I. Preoperative

May ingest fluids up to 4 h before procedure

diet

• Eliminate use of mechanical bowel preparation; rectal enemas still performed

II. Intraoperative

Analgesia

Celecoxib 400 mg orally once

before operative

• Acetaminophen 1,000 mg orally once

room entry

Gabapentin 600 mg orally once

Postoperative

 Before incision (±30 min): dexamethasone 4 mg IV once plus droperidol 0.625 mg IV once

nausea and vomiting

• Before incision closure (±30 min): granisetron 0.1 mg IV once

prophylaxis

Fluid balance

• Goal: maintain intraoperative euvolemia

• O Decrease crystalloid administration

• O Increase colloid administration if needed

Analgesia

 Opioids IV at discretion of anesthesiologist supplemented with ketamine, ketorolac, or both • After incision closure: injection of bupivacaine at incision site

Anesthesia in pelvic organ

prolapse

surgery

- Subarachnoid block containing bupivacaine and hydromorphone (40–100 micrograms)
- Sedation vs "light" general anesthetic at the discretion of the anesthesiologist
- Ketorolac 15 mg IV at the end of the procedure for patients able to tolerate it
- No wound infiltration with bupivacaine in this cohort

III.

Postoperative

Activity

- Evening of surgery: out of bed greater than 2 h, including one or more walks and sitting in chair
- Day after surgery and until discharge: out of bed greater than 8 h including four or more walks and sitting in chair
- Patient up in chair for all meals

Diet

- No nasogastric tube; if nasogastric tube used intraoperatively, remove at extubation
- Patient encouraged to start low residual diet 4 h after procedure
- Day of surgery: one box of liquid nutritional supplement; encourage oral intake of at least 800 mL of fluid, but no more than 2,000 mL by midnight
- Day after surgery until discharge: two boxes of liquid nutritional supplement; encourage daily oral intake of 1,500–2,500 mL of fluids
- Osmotic diarrhetics: senna and docusate sodium; magnesium oxide; magnesium hydroxide as needed

Analgesia

- Goal: no IV patient-controlled analgesia
- Oral opioids
 - Oxycodone 5–10 mg orally every 4 h as needed for pain rated 4 or greater or greater than patient stated comfort goal (5 mg for pain rated 4–6 or 10 mg for pain rated 7–10); for patients who received intrathecal analgesia, start 24 h after intrathecal dose given
- Scheduled acetaminophen*
 - O Acetaminophen 1,000 mg orally every 6 h for patients with no or mild

hepatic disease; acetaminophen 1,000 mg orally twice daily for patients with moderate hepatic disease; maximum acetaminophen should not exceed 4,000 mg/24 h from all sources

Scheduled NSAIDs

- O Ketorolac 15 mg IV every 6 h for four doses (start no sooner than 6 h after last intraoperative dose); then, ibuprofen 800 mg orally every 6 h (start 6 h after last ketorolac dose administered)
- If patient unable to take NSAIDs
 - Tramadol 100 mg orally 4 times a day (start at 6:00 am day after surgery) for patients younger than 65 years of age and no history of renal impairment or hepatic disease; tramadol 100 mg orally twice daily (start at 6:00 am day after surgery) for patients 65 years of age or older or creatinine clearance less than 30 mL/min or history of hepatic disease
- Breakthrough pain (pain greater than 7 more than 1 h after receiving oxycodone)
 - Hydromorphone 0.4 mg IV once if patient did not receive intrathecal medications; may repeat once after 20 min if first dose ineffective
- IV patient-controlled analgesia
 - Hydromorphone patient-controlled analgesia started only if continued pain despite 2 doses of IV hydromorphone

Fluid balance

- Operating room fluids discontinued on arrival to floor
- Fluids at 40 mL/h until 8:00 am on day after surgery and then discontinued
- Peripheral lock IV when patient had 600 mL orally intake or at 8:00 am on day after surgery, whichever came first

IV, intravenous; NSAIDs, nonsteroidal anti-inflammatory drugs.

*Doses for patients greater than 80 kg and younger than 65 years of age; doses adjusted as appropriate for patients less than 80 kg or 65 years of age or older.