

Trauma Surgery

Standard Operating Procedure: Bedside Surgery

1. Indications
 - a. Exploratory laparotomy
 - b. Re-exploration of a previous open abdomen for dressing change or closure
 - c. Percutaneous tracheostomy
 - d. Percutaneous endoscopic gastrostomy (PEG)
 - e. Bronchoscopy
 - f. Upper or lower endoscopy

2. Bedside surgery protocol: General
 - a. Critical care attending/operating surgeon should be present for the entire surgical procedure
 - b. Critical care attending/operating surgeon will oversee the anesthetic management of the patient
 - c. Intravenous general anesthesia
 - i. Anxiolysis
 1. e.g. Propofol, Versed, Ativan, Ketamine
 - ii. Analgesia
 1. e.g. Fentanyl, Morphine, Hydromorphone, Ketamine
 - iii. Paralytic as needed
 1. Vecuronium, Cis-atracurium, Rocuronium
 - d. Optimize ventilator settings
 - i. Place patient on mandatory rate at 100% FiO₂
 - ii. Volume control preferred, particularly for percutaneous tracheostomy
 - e. Verify informed consent if procedure not emergent
 - f. Pre-procedure timeout to be performed by surgical team, procedure support staff, and bedside nursing
 1. Surgical team availability
 2. Laterality or level
 3. Verified patient medical record number
 4. Review allergies
 5. Procedure verification
 6. SCIP criteria (see line 2-J)
 7. Informed consent
 8. Appropriate instruments available
 9. Special considerations
 - g. Bedside nurse and respiratory therapist will monitor the patient
 - i. Monitors: ECG, blood pressure (arterial line/Q3 minutes), pulse oximetry, ICP as indicated, capnography or ventilator settings
 - h. Sterile perimeter will be set up in the patient's room.
 - i. All individuals within sterile perimeter must wear personal protective equipment i.e. surgical cap, mask, eye protection

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- j. All members of the operative team must decontaminate hands as per OR routine
 - k. Prophylactic antibiotics given if indicated
 - l. Chloraprep agent of choice for skin preparation unless contraindicated
 - m. Procedures are documented in EPIC by participating house staff or attending staff in timely fashion
3. Bedside laparotomy
- a. Laparotomy or reopening of recent laparotomy are only to be performed at bedside in extenuating circumstances when patient is unable to travel to operating room
 - b. Electrocautery will be available as needed.
 - c. Wall suction canisters available with tubing and Yankauer tips.
 - d. 4 L of warm crystalloid solution available.
 - e. A standard bedside laparotomy tray including suture will be set up on the sterile field.
4. Bedside tracheostomy
- a. See Percutaneous Tracheostomy PMG
 - b. Portex percutaneous tracheostomy kit or Blue Rhino tracheostomy kit (for XLT), trauma DPL cutdown instrument tray, appropriate suture, tracheostomy tube (typically 8 Portex), intubation tray, end-tidal CO2 monitor, and difficult airway bag
 - c. Ventilator adjusted
 - d. Withdrawal of endotracheal tube must be performed by experienced personnel with care to avoid inadvertent extubation
 - e. Confirmation of endotracheal placement of tracheostomy is by physical examination, CO2 color change, and inspired tidal volume versus expired tidal volume.
 - f. Post procedure chest x-ray is required
5. Bedside Percutaneous Endoscopic Gastrostomy
- a. See Percutaneous Endoscopic Gastrostomy (PEG) PMG
 - b. Endoscopy/procedure cart
 - c. Gastroscope
 - d. Bard PEG (pull-type) feeding tube kit, 20-French, sterile towels
 - e. Notation is made regarding site and depth of gastrostomy tube both in the procedure note as well as daily nursing assessment
6. Bronchoscopy
- a. See Bronchoscopy SOP
 - b. Endoscopy/procedure cart
 - c. Bronchoscope
 - d. Wall suction, button connectors for bronchoscope, saline for irrigation, 20cc syringes, sputum trap, drape and sterile towels
 - e. Ventilator adjusted to 100% FiO2 and to maintain preprocedure minute ventilation
7. Upper/Lower Endoscopy

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- a. Examples of bedside endoscopy: Placement of nasogastric or nasojejunal tube, evaluation for injury, evaluation of PEG tube. More extensive procedures performed either in OR or by GI (at bedside or in endoscopy suite)
- b. Endoscopy/procedure cart
- c. Upper or lower endoscope, snare wire, syringes, scope buttons, water bottle and connection, foot pedal if needed

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