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## Rib Fracture Management For The Admitted Patient

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### **Purpose:**

To standardize the treatment of rib fracture patients to improve chest wall stability, respiratory function, and secretion clearance.

### **Guidelines:**

- A. See the "Emergency Department Rib Fracture (Standard of Care) for ED management
- B. Traumatic Rib fractures should be admitted to Trauma Services unless the admission is required for skilled nursing facility (SNF) placement or potentially for post resuscitation rib fractures caused from CPR then at minimum Trauma Services should be consulted
- C. If there is a 1st rib fracture, evaluate for polytrauma
- D. Initial treatment of rib fractures for the admitted patient
  1. Admitting Trauma Provider and Anesthesia
    - a. Multimodal pain control
      - i. Consult Anesthesia for pain control
        - Nerve block/pain catheter as appropriate
      - ii. Schedule Tylenol and NSAID unless clinically contraindicated
      - iii. Consider oral or IV narcotics as appropriate to control pain
      - iv. Consider Lidoderm patch
    - b. Consult Physical Therapy (PT) and Occupational Therapy (OT)
  2. Respiratory Therapy
    - a. Consult Respiratory Therapy
      - i. Evaluation / Recommendations - Including but not limited to:

- Positive expiratory pressure device (PEP) device
- Incentive spirometry

### 3. Nursing

- a. Head of bed >30°
- b. Maximize pulmonary hygiene
  - i. Incentive spirometry (IS) and secretion clearance measures
    - Positive expiratory pressure device (PEP) device - 10 breaths every 1 hour while awake
    - Incentive spirometry 10 breaths every 1 hour while awake
- c. Early mobility
- d. Monitor pain control and treat accordingly
- e. Chest tube management as appropriate

### 4. Physical Therapy and Occupational Therapy

- a. Evaluate and treat accordingly

E. All rib fractures are to be evaluated for Open Reduction Internal Fixation (ORIF) by the Trauma Surgeon per the guidelines below. If ORIF is indicated by guidelines or is clinically necessary, transfer to the appropriate trauma center.

#### 1. Ribs 3-10

- a. Within 72 hours of admission as able
- b. >18 years of age
- c. Flail chest
- d. 3 or more ribs with at least 2 of the following
  - i. Respiratory rate >20
  - ii. IS <50% predicted
  - iii. Pain >5-10
  - iv. Poor cough/poor secretion clearance

#### 2. Contraindications to ORIF

- a. Shock or ongoing resuscitation
- b. Ribs 1, 2, 11, 12

- c. Sepsis
- d. Severe TBI
- e. Anatomic location considerations

**References:**

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