



SERTAC Chest Trauma Guideline

October 13, 2025

- Admitting service
 - Patients with 2 or more rib fractures should be admitted under general or trauma surgery or at minimum have a surgery consult
 - Patients should be considered for ICU admission if:
 - Age < 65 and VC < 30% predicted
 - Age > 65 and VC < 40% predicted
- Chest trauma monitoring should be implemented for all rib fractures.
 - Respiratory Therapy to measure patient Vital Capacity & calculate percent of predicted.
 - For Percent of Predicted less than 30% inform Physician and perform Vital Capacity measurement and Positive Pressure Therapy (i.e.: EZ PAP or MetaNeb) every 4 hours x 48 hours.
 - For Percent of Predicted 30% - 40% perform Vital Capacity measurement and Incentive Spirometry every 4 hours x 48 hours.
 - For Percent of Predicted 41% - 50% perform Vital Capacity measurement and Incentive Spirometry 4 times daily x 48 hours.
 - For Percent of Predicted 51% - 65% perform Vital Capacity measurement and Incentive Spirometry 3 times daily x 48 hours.
 - For Percent of Predicted greater than 65% perform Vital Capacity measurement and Incentive Spirometry 2 times daily x 48 hours.
 - If Vital Capacity remains stable after 4 days monitor Vital Capacity with Incentive Spirometry daily x 48 hours.
 - Call provider if: A decline in patient's condition is noted/suspected or if a patient's percent of predicted vital capacity is less than 30% (if not previously identified in that category).
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 - Physical therapy consultation
 - Hourly incentive spirometry with RN
 - Multimodal pain control:
 - NSAIDS
 - Tylenol
 - Opioids (with aggressive bowel regimen)
 - Muscle relaxer
 - Lidocaine patch
 - Ice/heat
 - Consideration of regional analgesia:
 - Serratus anterior block, erector spinae block
 - Thoracic epidural (may require pause in DVT ppx)
 - Consider routine CXR to ensure no progressive chest wall volume loss



- Consider a call to a center that performs rib fixation for recommendations from trauma surgery regarding the following.
 - Severe pain despite maximal medical management
 - Persistent Vc < 40%, or
 - Progressive volume loss seen on serial imaging studies.
 - Age > 65
 - Patient may meet criteria for surgical stabilization of rib fractures
- Patients may be considered for surgical stabilization (plating) of rib fractures IF:
 - 3 or more rib fractures with >50% displacement
 - Clinical or radiographic flail segment
 - Inability to wean from ventilator (secondary to rib fractures)
 - Progressive loss of chest wall volume
- Performance Improvement
 - Patient with 2 or more rib fx adm to non-surgical service and no surgery consult
 - Pt > age 65 with VC < 40% admitted to floor
 - Chest trauma monitoring not ordered for pt with rib fx
 - Unanticipated increase in level of care (ie., transferred to ICU) secondary to respiratory compromise

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