Vancouver CoastalHealth

LEGEND

- Decision Point
- Selection
- Diagnostic Step
- Action Item

Chest Trauma
(with 1 or more rib fractures)

Calculate Rib fracture score
(Breaks x Sides) + Age Factor = RFS

Rib Fracture Score
- Breaks = # of fractures
- Sides: Unilateral=1 Bilateral=2
- Age Factor
  - <50 = 0
  - 51-60 = 1
  - 61-70 = 2
  - 71-80 = 3
  - >80 = 4

*If pt is ≥ 65 & ≥ 3rib#s, they are automatically High Risk

Rib Fracture Score 3-6 → Low Risk

- Regular Acetaminophen
- +/- NSAIDS
- +/- PRN oral hydromorphone
- +/- PRN IV/SQ hydromorphone
- +/- Antiemetic regular or PRN

Is Pain controlled within 4 hours?

- Yes → Continue with established routine
- No → Is Respiratory Function clinically effective?

Rib Fracture Score > 6 → High Risk

- Regular Acetaminophen
- +/- NSAIDS
- +/- PRN oral hydromorphone
- +/- PRN IV/SQ hydromorphone
- +/- Antiemetic regular or PRN

Referral to POPS for consideration of
- PCA with opiod
- Gabapentinoid
- Regional or Neuraxial Block

Is Respiratory Function clinically effective?

- Yes → Observe and reassess PRN
- No → Assess need for Respiratory Support

PIC Score

- PIC 3-5 → Reassess q6h x 48h
- PIC 6-8 → Consider BiPAP; Reassess q6H and PRN x 48h
- PIC 9-10 → Notify Physician Consult ICU/CCOT

PIC Score (Modified)

Pain Score Scale (0-10)	Inspiration (Vital Capacity) Goal is 20mL/kg	Cough Strength
1 - Controlled (0-4)	1 - Above Goal Volume	1 - Strong
2 - Moderate (5-7)	2 - Goal Volume	2 - Weak
3 - Severe (8-10)	3 - Below Goal Volume	3 - Absent
	4 - Unable to perform	

Coary, R., Skerritt, C., Carey, A., et al. New horizons in rib fracture management in the older adult. Age and Aging. 2019, 00: 1-7.

May, L., Hillermann, C., Patil, S. Rib fracture management. British Journal of Anesthesia Education. 2016, 16 (1): 26-32.

O'Connell, K., Quistberg, A., Tessler, R., et al. Decreased risk of delirium with use of regional analgesia in geriatric trauma patients with multiple rib fractures. Annals of Surgery. 2018, 268 (3): 534-540.