

Patient referred by
A&E with rib
fractures

Ensure patient has
had CT scan

Calculate chest injury severity score:
- Age: +1 for each 10 years over age 10
- Rib fractures: +3 for each individual fracture
- Chronic lung disease: +5
- Anti-coagulant: +4
- Oxygen saturation on air: +2 for each 5% decrease below 95%

If lidocaine patches are unavailable on the ward out of hours, the site manager should be contacted to obtain from the emergency drug cupboard. If this fails, the oncall pharmacist should be contacted

Analgesia
Patients should be able to cough or take a deep breath. If not then escalate their analgesia appropriately all the way to nerve block if required.

0-10
- Regular oral analgesia and lidocaine patch.
- Consider for home discharge if pain sufficiently managed.
- Admission, PCA and pain team if not

11-20
- Admit.
- Regular oral analgesia and lidocaine patch.
- PCA and pain team if not controlled.
- Chest physio

21-30
- Admit and refer for critical care review.
- Regular oral analgesia, lidocaine patch, PCA and pain team
- Consider withholding or reversing antiplatelets.coagulants in case regional block is required
- Chest physio
- Care of elderly referral if appropriate

31+
- Admit and refer for critical care review.
- Regular oral analgesia, lidocaine patch, PCA and pain team.
- Regional block should be strongly considered
- Consider withholding or reversing antiplatelets/coagulants
- Chest physio
- Antibiotics
- Care of elderly referral if appropriate

Table 3. Battle Score for Mortality Complications in Emergency Department Patients with Rib Fracture^{86,93}

Risk Factor	Scoring
Age	1 point for each 10 years of age (starting at age 10)
Number of rib fractures	3 points per rib fracture
Chronic lung disease	5 points
Pre-injury anticoagulant use	4 points
Oxygen saturation levels	2 points for each 5% decrease in O ₂ saturation starting at 94%
Final Risk Score	Probability of Mortality (mean ± Standard Deviation)
0 to 10	13% ± 6
11 to 15	29% ± 8
16 to 20	52% ± 8
21 to 25	70% ± 6
26 to 30	80% ± 6
31+	88% ± 7