Adopting best practices in the analgesic management of rib fractures - a local perspective

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Introduction:

Trauma remains a key cause for admission to hospital, with reports suggesting that, on a global review, 10-15% of patients present to ED with blunt chest trauma. [1] A recent study concluded that 20% of patients admitted to hospital with trauma had at least one rib fracture. [2]

In accordance with Major Trauma Services Quality indicators, [3] all NHS hospital Trusts are required to adopt local guidance addressing pain management of multiple rib fractures and advise on when to escalate to general surgeons.

Aims:

This study aimed to compare current management practices of patients with rib fractures at Southend University Hospital ED against the Trust guidance available in 2021. [4]
Comparison focused on three key areas:

1. The specific analgesia prescribed for each patient
2. The documentation of pain scores and risk assessments
3. Rate of failed discharges, and exploration into why they re-presented to hospital

Methods:

A retrospective audit was carried out of patients presenting to Southend ED from 1st August 2021 to 31st October 2021 with a clinical diagnosis of 'Rib Fracture (closed)'. A total of 74 patients were identified.

Results:

The mean age of patients presenting with rib fractures in this time period was 64 years with the majority of patients being male (61%). 28% were subsequently admitted under the general surgical team.

Whilst awaiting assessment in ED, the most common analgesia provided, if any at all, were weak opiates and paracetamol. Due to age and co-morbidities, non-steroidal anti-inflammatories would have been contra-indicated, and so the analgesic practices in general adhered to Trust guidance.

Various levels of risk assessment were documented by clinicians when clerking, however the pain score was only explicitly stated in two thirds of the cases.

Of those patients discharged from ED, there was a failed discharge rate of 9%, and only 20% of patients re-presenting due to rib fracture pain were initially discharged with analgesia.

Conclusion:

Adopting Trust guidance engenders best clinical practice. Although clinicians subconsciously risk assess and so appropriately prescribe analgesia, it remains essential to thoroughly document clinical assessments. There is an opportunity, in light of the recent Mid and South Essex Trust merger, to review guidance to ensure it reflects best practice and aids safe discharges.
It is recommended that the integration of a summative flow chart, that both incorporates analgesic advice based on pain scores and suitable discharge criteria, would be beneficial. Prior to publication, the new guideline would need review by anaesthetists, general surgeons, and ED clinicians, and then a review date would need to be scheduled.

This study will also be presented to consultants and registrars in Southend ED to help improve awareness, and encourage education of new juniors in the department.

References:

1. Battle et al. Predicting outcomes after blunt chest wall trauma: development and external validation of a new prognostic model. Crit Care 2014, 18:R98. Available from doi: 10.1186/cc13873
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3. NHS England. Major Trauma Services Quality Indicators (T16-2C-305). Available from: https://www.c4ts.qmul.ac.uk/downloads/quality-indicators-for-trauma.pdf
4. Southend University Hospital Trust. Guideline for Pain Management in Patients with Multiple Rib Fractures - CG308. 2018 June 25.