Blunt Chest Trauma: Pain Management Guidelines

NHS
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Sussex Trauma NETWORK
Prevention | Pre-hospital | Acute Care | Rehab

BRIGHTON ANAESTHESIA

Management of Rib Fractures

STEP 1: Calculate Rib Fracture Score (RFS)

(BREAKS x SIDES) + Age = Rib Fracture Score (RFS)		
BREAKS	SIDES	AGE
No. of fractures	Unilateral = 1	Less than 50 = 1
	Bilateral = 2	51 to 60 = 2
		61 to 70 = 3
		71 to 80 = 4
		More than 80 = 5

STEP 2: Determine management plan

⚠ **PRH: Patients with a RFS >5: consider transfer to RSCH**

Score 2 - 5	Score 6 - 14	Score 15 & above
• Ensure analgesia is prescribed as per trauma analgesia guideline (Page 2)	• Call APS in hours/1st on call anaesthetist out of hours to assess for nerve catheter or PCA • Ensure analgesia is prescribed as per trauma analgesia guideline (Page 2)	• Call APS in hours/1st on call anaesthetist out of hours to prescribe PCA and organise placement of a nerve catheter • Ensure analgesia is prescribed as per trauma analgesia guideline (Page 2)

REGARDLESS OF RIB FRACTURE SCORE:

Refer for PCA and/or Regional Anaesthesia if:

- Significant multiple injuries or high impact injury
- Evidence of lung contusions
- Clinical deterioration:
  <94%, RR >24 or increasing O2 requirements
- Significant respiratory or cardiac disease

Refer to Critical Care if:

- Flail chest
- Pneumothorax
- Significant multiple injuries
- Clinical deterioration:
  <94%, RR >30 or O2 requirements 40% or more
- Significant respiratory or cardiac disease

Refer for chest physiotherapy if:

- New oxygen requirement
- Retention of secretions

Contacts: Acute Pain Service Bleep 8102 (in hours), 1st on call Anaesthetist Bleep 8235/ tel. 62080

Management of Chest Injuries

Parent teams: Analgesia should be optimised using the following guideline

Age < 65 years & normal renal function	Age > 65 years age & normal renal function	Abnormal renal function (any age)
Paracetamol 1 gram 4–6hrly. Reduce dose to 500mg QDS if patient weighs ≤50kg		
Lidocaine plasters: 1 to 3 plasters over **fractured ribs**: apply **for 12 hours** (e.g. 8am to 8pm), remove for 12 hours (e.g. 8pm to 8 am)		
Use an NSAID if no contraindications: **Ibuprofen** 400mg PO TDS or **Naproxen** 500mg PO BD	**Avoid NSAIDS**	
Morphine (IR) 5 - 20 mg 2 hourly PO PRN lowest effective dose - monitor renal function IF intractable side effects with morphine switch to **Oxycodone (IR) 2.5 - 10mg 2 hourly PO PRN**	**Morphine (IR) 2.5 - 10 mg 2 hourly PO PRN** lowest effective dose - monitor renal function **Age>85: Morphine (IR) 2.5-5 mg 4 hourly PO PRN** IF intractable side effects with morphine switch to **Oxycodone (IR) 1.5 - 5 mg 2 hourly PO PRN** **Age>85: Oxycodone (IR) 1.5-2.5 mg 4 hourly PO PRN**	**eGFR 30 - 60** **Morphine (IR) 2.5 - 5mg 4 hourly PO PRN** IF intractable side effects with morphine switch to **Oxycodone (IR) 1.5 - 2.5mg 4 hourly PO PRN** **IF eGFR < 30** **Oxycodone (IR) 1.5 - 2.5mg 6 hourly PRN, or** **Consider referring for Fentanyl PCA**
Consider Gabapentin if **chest drain** in situ or evidence of **neuropathic pain:**		
Gabapentin 300mg PO TDS	**Gabapentin 300mg PO TDS** Give 100-200mg for patients with co-morbidities	**eGFR 30-60 Gabapentin 100mg to 200mg PO TDS** **eGFR <30 Gabapentin 100mg PO BD**

***All doses in the above table are in accordance with Trust analgesia guidelines**

Important: Analgesia must be optimised prior to physiotherapy

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