Acute Painful Crisis in Sickle Cell Disease

Initial Assessment

Assess baseline observations (PEWS), hydration + pain using an age appropriate pain scale

Aim of treatment is to break the cycle of sickling – hypoxia + acidosis – further sickling

STEP 1 - Oxygen

Maintain sats > 95%

STEP 2 - Pain management

Give analgesia

Mild-moderate pain: Regular paracetamol/ibuprofen
Severe pain: Bolus Morphine (see BNFC)

Reassess 30 minutes after each intervention

Patients receiving Morphine should have observations every hour for the first 6 hours and 4 hourly thereafter

STEP 3 - Fluids

Give normal maintenance
If in crisis and or dehydrated hyperhydrate with 150% maintenance (PO/NG/IV)
Monitor U+Es 24 hourly

Dehydration exacerbates sickling

STEP 4 - Antibiotics

Infection is a common precipitating factor

- Increase Penicillin V to a treatment dose if no specific signs of infection (see BNFC)
- If signs of infection Rx according to site (e.g. chest, bone – antibiotics as per Sickle Cell Disease Guideline/ MicroGuide App)

Take blood cultures before starting antibiotics

DETERIORATION

Reassess the need for increased analgesia with IV Morphine infusion if >2 oral morphine boluses are required

Consider unrecognised infection/sepsis e.g. Osteomyelitis causing bone pain

Consider non-sickling pathology as a cause of symptoms

Drugs (see BNFC)
Folic Acid: continue normal dose
Antiemetics: prescribe Ondansetron 1st line alongside Morphine if symptomatic
Laxatives: always prescribe alongside Morphine
Antihistamine: prescribe if itching with Morphine
Naloxone: always prescribe alongside morphine

PIER Paediatric Innovation, Education & Research Network

Helen Ord June 2016