

# Sickle cell disease - Acute Chest Syndrome

## Signs & symptoms of acute chest crisis

Tachypnoea, pleuritic chest pain, hypoxia, shortness of breath, fever

Note: CXR changes can be indistinguishable from pneumonia + often lag behind the clinical syndrome

Acute Chest Crisis is an indication for exchange transfusion

## Investigations

CXR

Blood gas – consider arterial if sats <92% in air

Blood culture, sputum culture + throat swab

FBC, U&E's, LFTs, CRP, G&S

Consider serology for Mycoplasma, Legionella & respiratory viral PCR

## Oxygen – give O2 if sats <95%

Consider NIV early if sats <90%  
Rapid fall in O2 saturations or persistent fever may be indications for exchange transfusion

## Fluids

Give normal maintenance (add potassium)  
If dehydrated hyperhydrate with 150% maintenance (PO/NG/IV)  
Monitor U+Es 24 hourly

Beware of the risk of SIADH

## Antibiotics

IV Cefuroxime + PO Clindamycin (stop prophylactic Pen V)

## Physiotherapy + incentive spirometry



## DETERIORATION

Consider the following in conjunction with paediatric haematologist:

- Exchange transfusion
  - NIV
  - Diuretics
- Bronchodilators in those with known airways disease
  - Transfer to HDU/PICU