

Sickle Cell Crisis

Table 3.42 – ASSESSMENT and MANAGEMENT of:

Sickle Cell Crisis	
ASSESSMENT	MANAGEMENT
● Assess ABCD	<ul style="list-style-type: none">● If any of the following TIME CRITICAL features present:<ul style="list-style-type: none">– major ABCD problems– ^aacute chest syndrome, then:● Start correcting A and B and undertake a TIME CRITICAL transfer to nearest receiving hospital.● Continue patient management en-route.● Provide an alert/information call.
● Ask the patient if they have an individualised treatment plan	<ul style="list-style-type: none">● Follow the treatment plan if available.● The patient will often be able to guide their care.● Follow medical emergencies guideline in addition to the specific management detailed below.
● Oxygen	<p>Administer supplemental oxygen to ALL patients including those with chronic sickle lung disease; oxygen helps to counter tissue hypoxia and reduce cell clumping.</p> <ul style="list-style-type: none">● Adults – administer supplemental oxygen via an appropriate mask/cannula until a reliable SpO₂ measurement is available; then adjust the oxygen flow to aim for target saturation within the range of 94–98%.● Children – administer high levels of supplemental oxygen.● Apply pulse oximeter. <p>NB It is safer to over-oxygenate until a reliable SpO₂ measurement is available.</p>
● ECG	<ul style="list-style-type: none">● Undertake a 12-lead ECG in patients with chest pain to exclude obvious cardiac causes (refer to acute coronary syndrome guideline).
● Fluid	<p>Patients with a sickle cell crisis will not have acute fluid loss, but may present with dehydration if they have been ill for an extended period of time.</p> <ul style="list-style-type: none">● If fluid resuscitation is indicated (refer to intravascular fluid therapy guideline).
● Pain management	<ul style="list-style-type: none">● Offer ALL patients pain relief.● Entonox – administer initially but do not administer for extended periods (refer to Entonox guideline).● Opiate analgesia – administer orally or subcutaneously rather than intravenously if possible (refer to morphine guidelines). The dose should be guided by the patient's hand-held record if available, otherwise refer to pain management guidelines.
● Transfer to further care	<ul style="list-style-type: none">● Transfer to specialist unit where the patient is usually treated.● Patients should not walk to the ambulance as this will exacerbate the effects of hypoxia in the tissues.

^a**Acute Chest Syndrome (also known as chest crisis).** This is a common and potentially life-threatening complication of painful crises, and is often precipitated by a chest infection. The patient becomes breathless, hypoxic and tachypnoeic/tachycardic over a short period of time. Chest pain is often present, and the hypoxia responds poorly to inhaled oxygen. Crackles are often present in the lung bases and will ascend rapidly to involve the whole lung fields in severe cases. Radiological changes follow late and patients may be critically ill with near normal radiology. If a chest crisis is suspected, treatment should be initiated with inhaled oxygen and intravenous fluids. In hospital, intravenous antibiotics and urgent exchange transfusion are likely to be instituted after discussion with the haematology team. Intensive care and mechanical ventilation may be required in some cases. Pulmonary embolus is an important differential diagnosis.