Emergency Department
Sickle cell acute pain management protocol

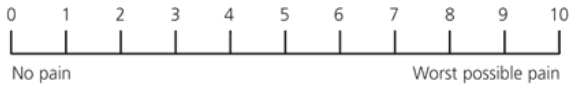
Date: Time:

Name: File Number: Hospital: phone no:

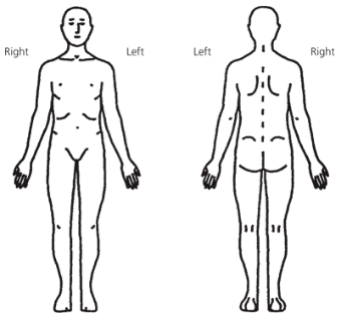
Civil ID: Age: Sex: Nationality:

1- Pain Assessment:

a. Intensity: (according to the patient)



b. Localization:_____.



c. Duration:_____.

d. Last visit to casualty:_____.

e. Triggers of pain:

- ❑ Dehydration
- ❑ Hypoxia
- ❑ Infection
- ❑ Cold exposure
- ❑ Strenuous exercise
- ❑ Psychological stressors
- ❑ Menstruation
- ❑ Others

f. Associated complications of SCD:

- ❑ Dyspnea (acute chest syndrome)
- ❑ Neurological symptoms (stroke)
- ❑ Abdominal pain (GB disease)
- ❑ Chest pain (cardiac symptoms)
- ❑ Pallor (sequestration)
- ❑ Others

2- Pain Medication History:

_____.

_____.

- ❑ No known Allergies
- ❑ Allergies:_____.

_____.

3- Investigations and imaging:

- ❑ CBC, Retics
- ❑ RFT, LFT +/- LDH
- ❑ ABG (**if** O_2 Sat. on room air is <92%)
- ❑ ECG and Troponin (in case of cardiac chest pain)
- ❑ CXR (in case of respiratory symptoms or chest pain)
- ❑ Others as needed_____.

4- Vital signs:

HR:_____. RR:_____.
T:_____. O_2 Sat:_____.

5- **Initial management**: (**within 30 min of presentation)** To all patients:

- ❑ IV perfelgan*: 1 gm stat
- ❑ NSAIDs*
- ❑ IVF: bolus of 0.5- 1 L NS in 1 hr**
- ❑ Oxygenation: if PO_2 <94% on RA
- ❑ For chronic opioid users: use all above + chronic opioid therapy

▪ *(Unless allergy or contraindicated e.g. renal impairment)
▪ **Caution in patients with known CHF or Pulm HTN

6- Opioid therapy (To patients with severe pain or pain persists after 30 min)

A. For patients On Chronic Opioid Therapy:

➢ According to patient/family/record:

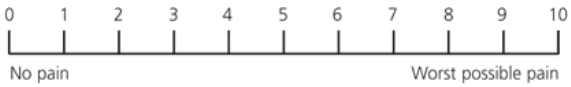
- Drug:_____.Dose:_____.
- Use individualized management plan if available.
- Reassess after 30 minutes (check for pain intensity, sedation level, vital signs)

➢ if pain persists call medical On call

B. For Opioid Naive patients:

➢ IV morphine 0.1 mg/kg (maximum 10 mg) over 10 minutes (or S/C if no IV access).

- 1st Dose:_____. Time:_____.
- Reassess after 30 minutes (check for pain intensity, sedation level, vital signs)



➢ If pain persists call medical On call and give:

- IV morphine 0.02 to 0.05 mg/kg over 10 minutes (or S/C if no IV access).
- 2nd Dose_____. Time:_____.

❖ If patients develop severe respiratory depression 2ndry to opioid, give 100 ug **Naloxone** IV every 2 min as necessary.

7- Discharge plan (after 1-2 hours):

- ❑ Admission to ward.
- ❑ OPD referral and discharge medications.

_____.

_____.

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Initial management:

Within 30 minutes of presentation (to all patients)

1. IV perfelgan: 1 gm stat.
2. NSAIDs (unless allergy or contraindicated).
3. IVF bolus of 0.5 to 1L NS in 1 hr (caution in patient's with CHF or Pulm HTN).
4. Oxygenation: if PO_2 <94% on RA.
5. For chronic opioid users: use all above + chronic opioid therapy.

↓

If pain is severe or pain persists after 30 min

(Opioid medications should be based on whether patient is on chronic opioid therapy or opioid naïve).

On chronic opioid therapy

- Review previous patient's records.
- Select medication and loading dose based on prior treatment history according to record/patient/family.
- Follow the **patient's individualized management plan** written by his treating doctor whenever possible.
- Reassess after 30 minutes (check for pain intensity, sedation level, vital signs) and if pain persists call medical on call.

Opioid naive:

1. Start IV dose of morphine 0.1 mg/kg (maximum 10 mg) over 10 min (or S/C if no IV access).
2. Reassess after 30 minutes (check for pain intensity, sedation level, vital signs).
3. If pain persists give IV morphine 0.02 to 0.05 mg/kg over 10 minutes (or SC if no IV access) **and** call medical on call.

Presentation:

Patients should be seen immediately by a physician, and a thorough assessment should be carried out immediately, treatment should start within **30 minutes** of presentation.

Assessment and investigations:

-Pain is subjective (patient's report), clinical and laboratory findings **can not** confirm or exclude the diagnosis of pain crisis or assess its severity, but they are important to exclude life-threatening complications of the disease (such as acute chest syndrome, priapism, cholycystitis and any neurological complications) and/or identify reversible causes of a pain crisis (such as infection, dehydration, hypoxia, severe anemia and splenomegaly).

-If the VOC pain is atypical, investigate other possible etiologies of pain.

Definitions:

Pain score: mild pain (score 0-3), moderate pain (score 4-6), severe pain (score 7-10)

Opioid naive patients: are patients who are not on daily/ regular opioid therapy (they might have received opioids on past admissions).

Patients on chronic opioid therapy: are those on daily opioid therapy (opioid dependent patients).

Criteria for Admission to Hospital:

If any of the following is available, then patient should be admitted:

i. Persistent pain after 1-2 hours. (Pain score after assessment still > 3).
ii. Signs and symptoms of complications: hypoxia, infection, severe anemia (Hb below patient's baseline), neurological symptoms, cholycystitis, priapism, cardiac ischemic events, splenic or hepatic sequestration or others.
iii. Recurrent visits in the past 3 days for the same symptoms (for opioid naive patients).

Important points:

a. Placebo therapy should **never** be undertaken, as it undermines the patient/physician relationship.
b. Opioids should **not be withheld** because of the unfounded fear of addiction.
c. Pethidine (meperidine) **should not** be used except for patients who have allergies, or who are intolerant to other opioids such as morphine and tramal.
d. Better to **avoid** ketorolac (NSAIDs) in adults for risk of renal impairment in sickle cell patients. If given, no more than one dose should be used.
e. Use an **individualized management protocol** (written by the patient's SCD provider) or an SCD- specific protocol whenever possible.