ED-SCANS: OVERALL DECISION SUPPORT ALGORITHM

Decision 1: Triage
Decision 2: Analgesic Management

Is This Strictly a Pain Episode?

No -> Decision 3: Diagnostic Evaluation

Yes ->

Decision 4: High Risk / High User

Decision 5: Disposition

Is Patient Discharged home?

Yes ->

Decision 7: Referrals

No ->

Decision 6: Analgesic Prescriptions
Abnormal vital signs:
T>100.5°F (38°C), RR>22, SaO2<93%, HR<50 or >100

Chief complaints:
- shortness of breath
- atypical pain (new location or generalized pain)
- neurological headache
- confusion
- neurological deficits
- seizures
- chest or abdominal pain
- priapism
- pregnancy

ED-SCANS DECISION 1
RN: Triage or Initial Nursing Assessment
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Are vital signs abnormal?
High-risk chief complaint identified?
Clinical impression of a high-risk patient?

Yes
Assign very high triage priority level
Facilitate rapid placement
Notify physician
Begin analgesic management
Facilitate diagnostic evaluation as ordered

No

Pain ≥ 7

No
Assign high triage priority level
Facilitate rapid placement
Facilitate analgesic management

Yes
Assign lower priority level
Facilitate placement when possible

Chief complaints:
- shortness of breath
- atypical pain (new location or generalized pain)
- neurological headache
- confusion
- neurological deficits
- seizures
- chest or abdominal pain
- priapism
- pregnancy

Abnormal vital signs:
- T>100.5°F (38°C), RR>22, SaO2<93%, HR<50 or >100

- shortness of breath
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- neurological headache
- confusion
- neurological deficits
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- chest or abdominal pain
- priapism
- pregnancy
Does the patient have an individualized ED analgesic management plan?

- Yes → Initiate individualized analgesic plan
- No → Does the ED have an SCD analgesic protocol based on rapid redosing?

- No → No
- Yes → Does the ED have an SCD analgesic protocol based on rapid redosing?

- Yes → Initiate departmental analgesic plan
- No → Initiate individualized analgesic plan

- Adult < 50 kg: morphine 0.15 mg/kg or hydromorphone 0.02 mg/kg are preferred agents and starting doses.
- Adult ≥ 50 kg: MS 5-10 mg, hydromorphone 1.5 mg.
- Consider PCA, especially in the context of observation or short-stay admission. Consider basal infusion if patient takes chronic daily opioids.
- Re-assess and re-administer analgesics q15 minutes, consider dose escalation.
- Titrate to pain and sedation.
- Develop individual and ED SCD analgesic protocols.
- Develop individual plans based on doses required to achieve good management.
ED-SCANS DECISION 3
MD: Diagnostic Evaluation

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Signs of possible acute chest syndrome or stroke?
Drop in Hgb/Hct; or pallor, fatigue, listlessness, recent viral illness? (Consider aplastic illness)

Temperature >100.5F (38C) or other symptoms of infection?

Yes
Signs of acute abdominal pain, nausea, or vomiting?

Consider infectious etiology and infectious workup with empiric antibiotic coverage if indicated

Yes
Consult SCD expert if considering transfusion

No
Consider abdominal catastrophes; bedside ultrasound, CT abdomen, or other diagnostic studies as indicated

Priapism

Yes
Consult urologist

No
Consider IV antibiotics or consultation with orthopedics

Focal bony or spinal pain with suspicion of necrosis, fracture, or osteomyelitis

Yes
No action

No
Signs of possible acute chest syndrome or stroke?
Drop in Hgb/Hct; or pallor, fatigue, listlessness, recent viral illness? (Consider aplastic illness)

Yes
Consult SCD expert if considering transfusion

No
Consider infectious etiology and infectious workup with empiric antibiotic coverage if indicated

No
HIGH RISK:
No PCP
>3 painful episodes/year
>3 ED visits or hospitalizations/year
Difficulty getting appointments with PCP
Pregnant

Yes

Establish ED / hospital QI team to work on challenges to provider follow-up access
Refer all patients for follow-up appointment with physician
Work with ED / hospital QI team to develop an individualized analgesic and management plan
Consider referral to case management and/or ethics consultation
Refer pregnant patients to high risk obstetrician

No

No further action required
Medical or surgical indication for admission

No

Pain improved to level patient is able to manage at home after analgesic trial with multiple doses over several hours

No

Pain improving, patient reports possibly being able to avoid admission with more time and analgesics

No

Consider transfer to ED observation or short-stay unit for up to 12 hours to possibly avoid admission. Admit after 12 hours if pain is not resolved to the point patient can manage at home.

Yes

Discharge home
Provide instructions for
• when to return to the ED
• how to treat pain
• when to follow up with PCP;

Yes

Admit to hospital
**ED-SCANS DECISION 6**

**MD: Discharge Analgesic Prescriptions**
(Patients discharged home from ED only)

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**Ran out of prescriptions**

**Analgesic prescriptions not working**
**No analgesic prescription available**

- **Yes**
  - **PCP available?**
    - **Yes**
      - Discuss changes in home analgesic management plan with PCP if indicated
    - **No**
      - Write analgesic prescription with number sufficient to manage current pain crisis
        (discuss with patient regarding what is typically needed—suggest up to 2 weeks)
        Attempt to schedule a follow-up appointment
        Refer to High Risk/High User algorithm (#4)

- **No**
  - Does the patient have sufficient analgesics at home or prescriptions?
    - **Yes**
      - No prescriptions necessary
    - **No**
      - No prescriptions necessary
PCP or SCD Expert

- **Does the patient have an SCD expert physician for referral?**
  - **Yes**: Refer for follow-up with PCP within 3-4 days of ED visit
  - **No**: Does the hospital have a physician for referral for SCD patients?
    - **Yes**: Refer for follow-up with physician identified by hospital within 3-4 days of ED visit
    - **No**: Work with hospital to identify referral physician for SCD patients. Refer to High Risk/High User algorithm (#4)

Psychosocial Services

- **Did the patient report anxiety, depression, illicit drug use, or other complicating psychiatric conditions?**
  - **Yes**: Refer to psychiatric services. If currently treated, encourage care coordination.
  - **No**: Did the patient report any of the following: lack of health insurance, unstable living or residential situation (family; gangs; lack of heat, electricity or water; homeless), lack of social support, unemployed, not in school, or other complicating factors?
    - **Yes**: Refer to social services
    - **No**: No referral required