



**Pain Management**

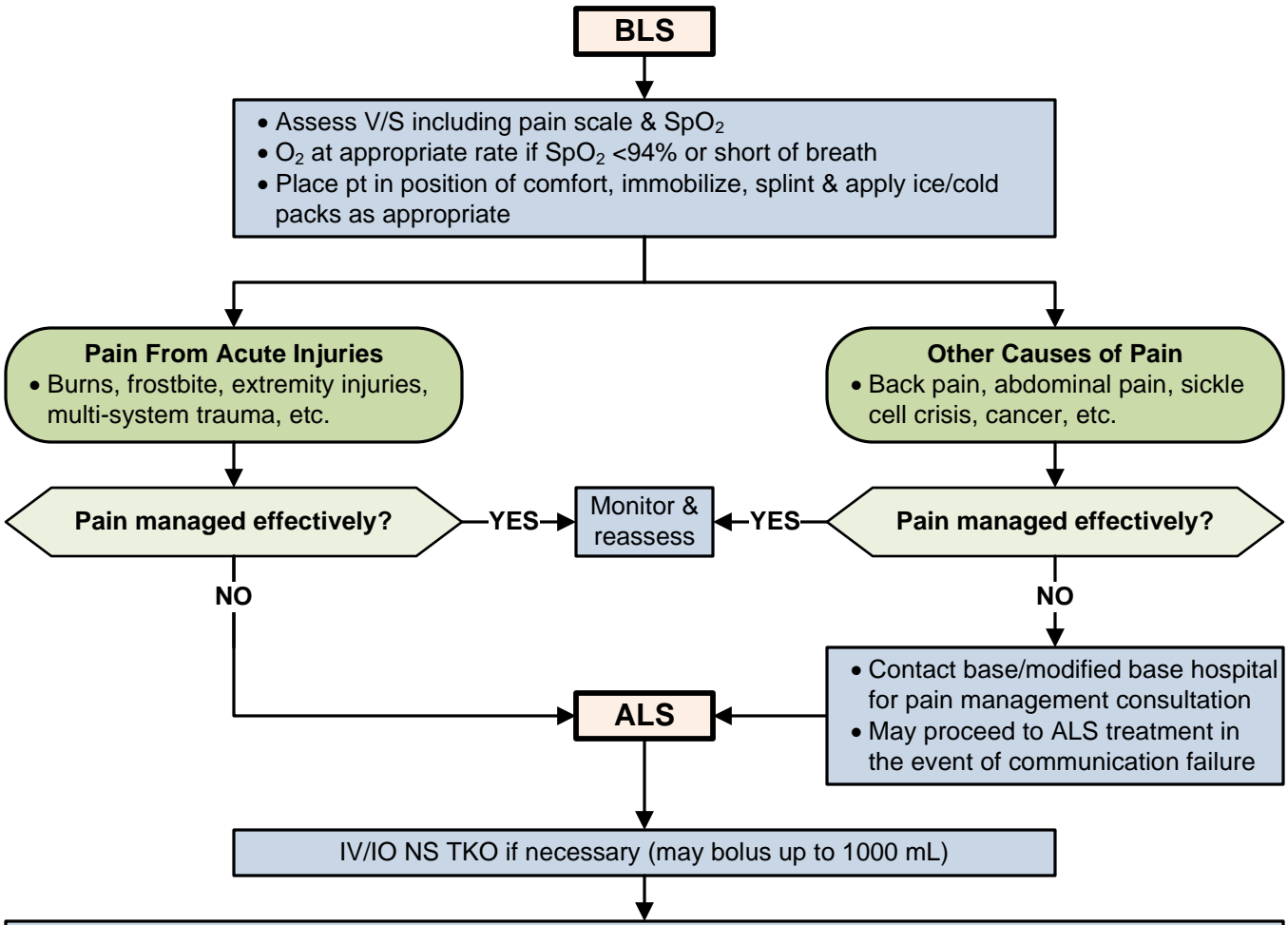
Approval: Troy M. Falck, MD – Medical Director

Effective: 06/01/2022

Approval: Victoria Pinette – Executive Director

Next Review: 05/2025

• Pain management shall be adequately addressed/documentated for all pts with a report of pain.  
 • Treatment should be directed at reducing pain to a tolerable level - pts may not experience complete relief.



**Any pain severity not effectively managed with BLS methods (may administer either/both)**

**Acetaminophen**  
 • 1 gram IV/IO infusion over 15 mins (single dose only)

**Ketorolac**  
 • 15 - 30 mg IV/IO or IM (single dose only)

---

① Do not administer acetaminophen to pts with the following contraindications:  
 - Severe hepatic impairment or active liver disease

① Do not administer ketorolac to pts who are pregnant, ≥65 yo, or have any of the following contraindications:  
 - ALOC or suspected TBI    - Active bleeding    - Current anticoagulation therapy  
 - Multi-system trauma    - Current steroid use    - Hx of GI bleeding or ulcers  
 - Hx of asthma    - NSAID allergy    - Hx of renal disease/insufficiency/transplant



**Pain Management**

**Pts with severe pain, pain not effectively managed with acetaminophen/ketorolac, acetaminophen/ketorolac contraindicated, or acetaminophen/ketorolac not available**

- Continuous cardiac & EtCO<sub>2</sub> monitoring required for all pts receiving opioids, ketamine &/or midazolam

**Opioids**

**Fentanyl**

- 25 - 50 mcg slow IV/IO (over 1 min) or IM/IN
- May repeat every 5 mins as necessary
- Max cumulative: 200 mcg

**Morphine**

- 2 - 5 mg slow IV/IO (over 1 min) or IM
- May repeat every 5 mins as necessary
- Max cumulative: 20 mg

- ① Administer lower opioid doses (25 mcg fentanyl or 2 mg morphine) to elderly pts, or pts also receiving ketamine
- ① If administering fentanyl & morphine to the same pt, max cumulative: 100 mcg fentanyl & 10 mg morphine
- ① Do not administer opioids to pts with any of the following contraindications:
  - SBP <100
  - SpO<sub>2</sub> <94% or RR <12
  - ALOC or suspected TBI

**Ketamine**

- 0.3 mg/kg IV/IO (max: 30 mg) mix in 100 mL NS & infuse over 10 mins
- May repeat 10 mins after completion of the previous infusion as necessary
- Max cumulative: 2 doses

- ① Utilize the following lower ketamine doses for pts also receiving opioids:
  - 0.15 mg/kg (max: 15 mg) mix in 100 mL NS & infuse over 10 mins
  - May repeat 10 mins after completion of the previous infusion as necessary
- ① Max cumulative: 2 doses
- ① Do not administer ketamine to pts with any of the following contraindications:
  - Pregnancy
  - Multi-system trauma
  - Suspected internal bleeding
  - Active external bleeding

**Pts with severe pain from acute isolated extremity injuries (including hip & shoulder), not adequately relieved by other pain management methods/analgesics**

**Midazolam**

- 1 mg slow IV/IO
- May repeat x 1 in 5 mins
- Max cumulative: 2 mg

- ① Use extreme caution when administering opioids or ketamine & midazolam to the same pt; this results in a deeper level of sedation with an increased risk for airway & respiratory compromise
- ① Midazolam doses shall be administered a minimum of 5 mins following administration of an opioid or ketamine dose
- ① Do not administer midazolam to pts with any of the following contraindications:
  - SBP <100
  - SpO<sub>2</sub> <94% or RR <12
  - ALOC or suspected TBI