Pain Management

(Updated 26-09-2018)

Signs and Symptoms:

There are numerous situations when pain control is required. The intent of this protocol is to offer a stepwise progression in pain management ranging for minor pain to pain associated with traumatic injury.

Considerations:

1. Non-traumatic pain may include, but is not limited to:
   a. Acute headache (pain that is typical for patient- especially if known diagnosis of migraines)
   b. Back pain/poorly localized pain, worse with movement and no neurological symptoms
   c. Musculoskeletal/joint/neck pain
   d. Pain from infection that is being treated

2. For traumatic or severe pain when the cause of pain is known. If decreased LOC, BP < 90, loss of radial pulse or hypotension, consider Hypovolemia Protocol 3.3 or Cardiac Chest Pain Protocol 1.1 (CFHS Med Tech Protocol manual – 4th Ed).

Contraindications:

Allergy to an indicated medication.

Management:

Children: (4-16 yo)	**Mild/Moderate Pain**	**Severe Pain**
	Acetaminophen 15mg/kg PO q 6hr prn (Max 75mg/kg/day not to exceed 4000mg) ± Ibuprofen 10mg/kg PO q 8hr prn (Max 40mg/kg/day not to exceed 2400mg)	Morphine[2] 0.1mg/kg IV over 1min to a max of 2.5 mg **or** Morphine[2] 0.1mg to 0.2mg/kg IM

Adjunct (Nausea & Vomiting) – Ondansetron 2 to 4mg PO **or** 0.1mg/kg IV, q 8hr prn

Adults: Management as per *Figure 1 – Adult Pain Protocol*

Disposition:

1. Consider evacuation for patients requiring opioid or ketamine use.

Notes:

[1] Meloxicam preferred NSAID as it does not exert an antiplatelet effect plus efficient once daily dosing. (TCCC Guidelines)
[2] Closely monitor patients receiving opioids for respiratory depression or loss of airway reflexes.
[3] For adult patients with Morphine allergy, Fentanyl lozenge may be substituted.
[4] Oral Transmucosal Fentanyl is a potent opioid indicated for moderate to severe analgesia in a non-permissive environment. Due to the risk of respiratory depression, a maximum of 2 doses (1600mcg total) is permitted per patient unless specifically directed by a higher medical authority. Follow on pain control is to be executed using ketamine (preferred) or morphine at the lowest effective dose.
[5] Ketamine may be added to patients who have received opioids but who have not achieved adequate pain control. Similarly, in the event that ketamine cannot solely provide satisfactory analgesia, SOMTs may supplement with opioid as per that arm of the protocol.
[6] Ketamine treatment endpoint = Pain control or nystagmus. Observe for increased secretions or laryngospasm. Be prepared to reposition airway, suction or use BVM to resolve transient laryngospasm.

Figure 1 - Adult Pain Protocol

Mild/Moderate Pain

Acetaminophen 1000mg q 6hr prn **±** Meloxicam[1] 15mg po daily (1st Line)

or

Ketorolac 10mg IV/IM q 6 hr prn (2nd Line)
(Max 2 days – Not for use in trauma patients)

Severe Pain

DISARM PATIENT

Symptoms or Risk of Shock or Respiratory Depression?
(Decreased LOC, SBP < 90, loss of radial pulse)

No

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Opiate[2] Protocol
(Have Naloxone available)

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Permissive Environment

Yes

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Morphine[3] 2.5 - 5mg IV/IO q 5min prn until comfortable or RR < 10

or

Morphine 10mg IM q 30min prn until comfortable or RR < 10

No

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Oral Transmucosal Fentanyl

1. Place 800mcg lozenge in pt's mouth btwn cheek and gums.
2. If inadequate analgesia at 15min may administer 2nd lozenge in opposite cheek.
3. **Max 2 doses**

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Adequate Pain Control[4]

Yes

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Continue Opiate Protocol

Yes/No

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Add Ketamine as per Ketamine Protocol
(Consider opiate reduction "If tolerated")

Yes/No

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Ketamine[5, 6] Protocol

Ketamine 25mg IV/IO (preferred route)

1. Give by slow IV push over 60sec
2. May repeat q 20min prn

or

Ketamine 50mg IM (undiluted 50mg/ml)

1. May repeat q 30min prn

Adjunct Therapies

Nausea & Vomiting

Ondansetron 8mg PO/IV/IM q 8hr prn

and/or

Dimenhydrinate 25-50mg PO/IV/IM q 6hr prn

Agitation/Delirium (w/ Ketamine)

Midazolam 2mg IV/IM/IO q 10min x 2 doses

Respiratory Depression (w/ Opioid)

Naloxone as per Medical Protocol 4.1
Narcotic Overdose – Adult (Suspected)
CFHS Med Tech Protocol Manual – 4th Ed