Pain Management

The goal is to reduce the level of pain for patients in the pre-hospital setting. All non-cardiac pain should be assessed and scored according to the "Wong Pain Scale". Reassessment should be timed according to medication onset of action, changes in patient condition, patient positioning and other treatments.

Pre-Medical Control

MFR/EMT/SPECIALIST/PARAMEDIC

1. Follow **General Pre-Hospital Care Protocol** or Follow **Pediatric Assessment and Treatment Protocol**.
2. For trauma patients follow the **Adult or Pediatric Trauma Protocol**.
3. Place the patient in the position of most comfort.

SPECIALIST/PARAMEDIC

1. Start an IV NS KVO. If the patient has a systolic blood pressure is less than 100 mm Hg and signs of hypoperfusion administer an IV/IO fluid bolus. Refer to **Vascular Access & IV Fluid Therapy Procedure**.

PARAMEDIC

Only one pain medication may be given pre-radio if authorized by the MCA. Medical Control must be contacted if a different pain medication is needed.

If indicated, administer pain medication as described below. Administer narcotics slowly when using IV or IO routes. Systolic BP should be maintained at:

Adult $\geq$ 100 mm Hg
Pediatric 80 + (2 x age) mm Hg

1. Administer pain medication per MCA selection.
2. Administer Fentanyl in 1 mcg/kg increments IV/IM/IO. If pain persists after five minutes repeat dose up to a maximum dose of 3 mcg/kg. For pediatric patients, administer Fentanyl in 1 mcg/kg increments IV/IM/IO up to a maximum of 2 mcg/kg.
3. Administer Morphine sulfate in 2 – 5 mg (0.05 mg/kg) increments IV/IM/IO, up to a maximum of 20 mg. For pediatric patients administer Morphine sulfate 0.05 mg/kg IV/IM/IO, may repeat dose every 5 minutes to a maximum total dose of 0.2 mg/kg.
4. Administer hydromorphone 1 mg IV/IM/IO every 10 minutes for maximum of 3 mg. For pediatric patients administer hydromorphone 0.01 mg/kg IV/IM/IO every 10 minutes for maximum of 0.03 mg/kg.
5. Medications administered IM are limited to a single dose without medical control order.

ADULT NARCOTIC ANALGESIC OPTIONS

Fentanyl 1 mcg/kg IV/IM/IO may repeat every 5 minutes until maximum of 3 mcg/kg

Morphine Sulfate 2-5 mg (0.05 mg/kg) IV/IM/IO may repeat dose every 5 minutes until maximum of 20 mg.

Hydromorphone 1 mg IV/IM/IO every 10 minutes for maximum of 3 mg.

IV/IO medication should be given slowly. IM administration should be limited to a single dose.

PEDIATRIC NARCOTIC ANALGESIC OPTIONS

Fentanyl 1 mcg/kg IV/IM/IO may repeat every 5 minutes until maximum of 2 mcg/kg

Morphine Sulfate - 0.05 mg/kg IV/IM/IO, may repeat dose every 5 minutes to a maximum of 0.2 mg/kg.

Hydromorphone 0.01 mg/kg IV/IM/IO every 10 minutes for maximum of 0.03 mg/kg.

IV/IO medication should be given slowly. IM administration should be limited to a single dose.

MCA Pain Management Selections

Protocols		Medications	Pre-Medical Control	Post-Medical Control
Adult Abdominal Pain		Fentanyl		
		Morphine		
		Hydromorphone		
Adult Burns		Fentanyl		
		Morphine Sulfate		
		Hydromorphone		
Adult Soft Tissue& Orthopedic Injury		Fentanyl		
		Morphine Sulfate		
		Hydromorphone		
Adult Chest Pain/ACS		Fentanyl		
		Morphine Sulfate		
		Hydromorphone		
Pediatric Burns		Fentanyl		
		Morphine Sulfate		
		Hydromorphone		
Other indications not listed above		Fentanyl		
		Morphine Sulfate		
		Hydromorphone		

Post-Medical Control

1. For patients with evidence of hypotension or hypoperfusion, contact medical control.

NOTE: Calculating medications when given a dosage range and a per kg dose:

1. Calculate weight in kilos and multiply by the prescribed dosage (e.g. - mg/kg)

2. The resultant dose should fall within the listed dosing range. For ease of administration, doses may be rounded to the nearest whole number within the range for those calculated doses at or above 1 dosage unit, or to the nearest tenth for those below 1 dosage unit (examples: 1.2mg rounded to 1mg, and 0.26mg rounded to 0.3mg). That calculated and rounded dose may be given and repeated in timed intervals, as indicated for that medication, to the control of symptoms or maximum stated cumulative dose if symptom control is not previously achieved.

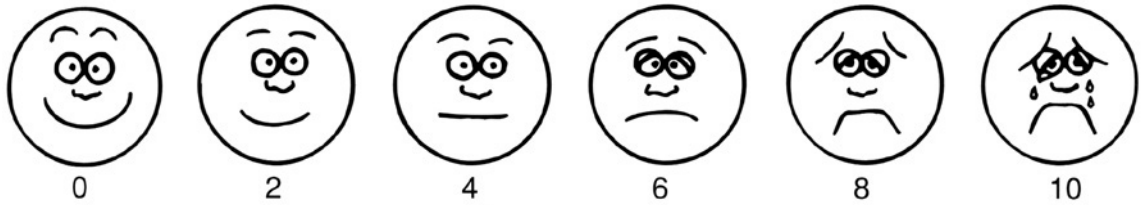
3. Patients who are very small or very large may fall below or exceed the dosing range, respectively. Those that fall below should be given the lowest dose in the range. Those that exceed the range should be given the maximum dose within the range.

Pediatric patients will never be given a single or total dose that exceeds the maximum single or total adult dose.

Wong Pain Scale: Pain Assessment Scale
Choose a number from 1 to 10 that best describes your pain

No pain Distressing pain Unbearable pain

0 1 2 3 4 5 6 7 8 9 10



NO HURT	HURTS LITTLE BIT	HURTS LITTLE MORE	HURTS EVEN MORE	HURTS WHOLE LOT	HURTS WORST

Indications for pain management include the following:
Short term pain relief for significantly painful conditions, including:

- Burns, isolated extremity trauma
- Back pain
- Flank pain
- Significant abdominal pain
- Severe headaches with migraine history
- Severe headache without altered mental status
- Significant pain in alert multiple trauma patient

Precautions such as reduced dose or administration rate may be indicated for:

- Elderly
- Respiratory depressed
- Pregnancy – not a contraindication to pain treatment unless at term or in labor
- Altered mental status
- Severe respiratory disorders
- Nursing mothers – relative, still treat pain
- Impaired hepatic or renal function – decreased metabolism
- Ingestion of benzodiazapines (i.e. Valium) – increased respiratory depression

For conditions in which longer acting pain management is desired and appropriate, i.e. burns, isolated extremity trauma, Morphine may be used preferentially to Fentanyl.

The goal is to reduce the level of pain for patients in the pre-hospital setting. All non-cardiac pain should be assessed and scored according to the Wong Pain Scale. Reassessment should be timed acceding to medication on set of action changes in patient condition, patient positioning and other treatments

Follow **General Pre-hospital Care Protocol**
OR
Pediatric Assessment & Treatment Protocol

Trauma patients follow
Adult
OR
Pediatric Trauma Protocol

Place the patient in the position of most comfort

Start IV NS KVO.

If patient has a systolic blood pressure less than 100 mm Hg and signs of hypoperfusion administer an IV/IO fluid bolus. Refer to **Vascular Access & IV Fluid Therapy Procedure.**

Only one pain medication may be given pre-radio if authorized by the MCA. Medical Control must be contacted if a different pain medication is needed.

If indicated, administer pain medication as described below. Administer narcotics slowly when using IV routes. Systolic blood pressure should be maintained at:

- Adult greater than or equal to 100 mm Hg
- Pediatric 80 + (2 x age) mm Hg

- Administer pain medication per MCA selection.
- Administer Fentanyl in 1 mcg/kg increments IV/IM/IO. If pain persists after 5 minutes repeat dose to a maximum of 3 mcg/kg.
- For **pediatric** patients, administer Fentanyl in 1 mcg/kg increments IV/IM/IO up to a max of 2 mcg/kg.
- Administer Morphine Sulfate in 2 – 5 mg (0.05 mg/kg) increments IV/IM/IO, up to a maximum of 20 mg.
- For **pediatric** patients administer Morphine Sulfate 0.05 mg/kg IV/IM/IO, may repeat dose every 5 minutes to a maximum total dose of 0.2 mg/kg.
- Administer hydromorphone 1 mg IV/IM/IO every 10 minutes for a maximum of 3 mg.
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IV/IO medication should be given slowly. IM medication should be limited to a single dose.

Evidence of hypotension or hypofusion?

CONTACT MEDICAL CONTROL

MCA Pain Management Selections

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	Morphine Sulfate		
	Hydromorphone		
Adult Burns	Fentanyl		
	Morphine Sulfate		
	Hydromorphone		
Adult Soft Tissue& Orthopedic Injury	Fentanyl		
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	Morphine Sulfate		
	Fentanyl		

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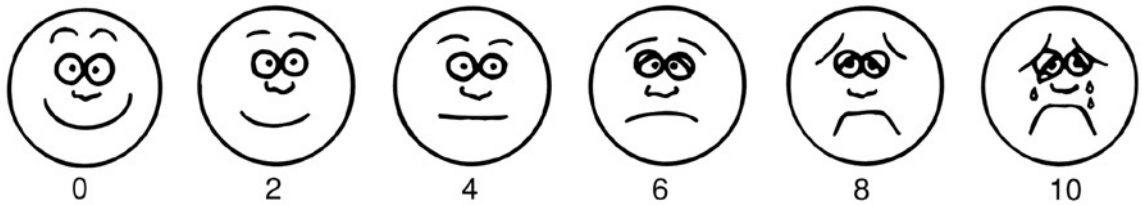

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