



# Yolo County Emergency Medical Services Agency

## Protocols

Revised Date: December 14, 2018

<b>PAIN MANAGEMENT</b>	
<b>Adult</b>	<b>Pediatric</b>
<b>BLS</b>	
Assess Vital Signs O <sub>2</sub> titrate SpO <sub>2</sub> to ≥ 94% Provide calming measures Splint and support injury in position of comfort For post traumatic swelling and pain provide compression and cold pack	
<b>ALS</b>	
Cardiac Monitor, Consider Vascular Access	
<b>Mild to Moderate Pain (Scale 1 - 6)</b>	
<b>Acetaminophen (Tylenol) 15 mg/kg IV Infusion</b> <ul style="list-style-type: none"> <li>Administer over 15-minutes</li> <li>Total max dose 1000 mg</li> <li>No repeat</li> </ul> <p style="text-align: center;"><u>And/Or</u></p> <b>Ketorolac (Toradol) 15-30 mg SIVP/IM</b> <ul style="list-style-type: none"> <li>No repeat</li> </ul>	<b>Acetaminophen (Tylenol) 15 mg/kg IV Infusion</b> <ul style="list-style-type: none"> <li>Use a length based pediatric resuscitation tape to determine weight for dosing</li> <li>Administer over 15-minutes</li> <li>Total max dose 1000 mg</li> <li>No repeat</li> </ul>
<b>Contraindications</b>	
<b>Acetaminophen (Tylenol)</b> <ul style="list-style-type: none"> <li>Liver Disease or complications (e.g. Transplant)</li> </ul> <b>Ketorolac (Toradol)</b> <ul style="list-style-type: none"> <li>Renal Disease/Insufficiency/Transplant</li> <li>Multisystem Trauma</li> <li>Coagulopathy Disorder</li> <li>Active Bleeding</li> <li>Patients &lt; 15 or &gt; 65 years</li> <li>History of Asthma</li> <li>Pregnancy</li> <li>Current Steroid use</li> </ul>	



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Adult	Pediatric $\geq$ 4 Years
<b>Severe Pain (Scale 7 - 10)</b>	
<p><b>Ketamine (Ketalar) 0.3 mg/kg SIVP/IM</b></p> <ul style="list-style-type: none"> <li>• Single max dose 30 mg</li> <li>• May repeat x 1 in 20-minutes</li> </ul> <p><i>* Ketamine may be administered in addition to Acetaminophen or Ketorolac for patients in severe pain</i></p>	<p><b>Fentanyl 1 mcg/kg SIVP/IM</b></p> <ul style="list-style-type: none"> <li>• IV - May repeat every 5-minutes</li> <li>• IM - May repeat every 10-minutes</li> <li>• Single max dose 50 mcg</li> <li>• Total max dose 200 mcg</li> </ul> <p style="text-align: center;"><u>Or</u></p> <p><b>Fentanyl 1 mcg/kg IN</b></p> <ul style="list-style-type: none"> <li>• ½ dose per nare</li> <li>• May repeat every 10-minutes</li> <li>• Single max dose 50 mcg</li> <li>• Total max dose 200 mcg</li> </ul> <p style="color: red;"><b>Patients &lt; 4 years – Base Physician contact for pain management consultation</b></p> <p><i>* Fentanyl may be administered in addition to Acetaminophen for severe pain</i></p>
<b>Contraindications</b>	
<p><b>Ketamine (Ketalar)</b></p> <ul style="list-style-type: none"> <li>• RR <math>\leq</math> 12</li> <li>• SBP <math>\leq</math> 100</li> <li>• GCS &lt; 15</li> </ul>	<p><b>Fentanyl</b></p> <ul style="list-style-type: none"> <li>• SBP &lt; normal range for age</li> <li>• GCS &lt; 15</li> </ul>
<b>Direction</b>	
<ul style="list-style-type: none"> <li>• Contact Receiving ED Physician for additional pain management</li> </ul>	