## Clinical Guideline
Sedation for Mechanical Ventilation
Pediatric Intensive Care Unit

### CHoR PICU Sedation Cheat Sheet
Use in conjunction with PICU Sedation Guidelines for Mechanically Ventilated Patients: HYDROmorphine, fentaNYL, MORPHINE
PICU Sedation Ordersets

**Nursing Orders:** RASS Goal, Dosing weight, PRN reasons AND what to give 1st, 2nd, etc.

**General Conversions:**
- 0.1 mg morphine = 0.02 mg HYDROmorphine = 1 mcg fentaNYL
- LORazepam 0.1 mg/kg = 0.2 mg/kg midazolam

<table>
<thead>
<tr>
<th>ALPHA-ADRENERGIC AGONIST</th>
<th>DOSING</th>
<th>ONSET/DURATION</th>
<th>MS</th>
<th>HR</th>
<th>BP</th>
<th>RESP</th>
<th>OTHER</th>
</tr>
</thead>
</table>
| **Dexmedetomidine**
  **DEXMED**
  **Precedex** | **Initial bolus:** 0.5-1 mcg/kg IV give over *10-20 min (MAX 50 mcg)
  **PRN bolus: pre-CARES**
  **Onset:** 5-10 mins
  **Peaks:** 15-30 min
  **Duration:** 1-2 hr | ↓ | ↓ | ↓ | -
| **Initial Infusion:**
  0.4 mcg/kg/hr
  ↑ by 0.1-0.2 mcg/kg/hr | | | | |
| **MAX infusion:** 1.5 mcg/kg/hr | | | | |

<table>
<thead>
<tr>
<th>OPIOIDS</th>
<th>DOSING</th>
<th>ONSET/DURATION</th>
<th>MS</th>
<th>HR</th>
<th>BP</th>
<th>RESP</th>
<th>OTHER</th>
</tr>
</thead>
</table>
| **HYDROmorphine**
  **Dilaudid**
  **1st line** | **Initial bolus:** 0.02 mg/kg IV (MAX 1 mg)
  **PRN bolus:** hourly infusion dose every hr
  **Initial Infusion:**
  < 60kg: 0.01 mg/kg/hr
  ↑ by 0.002 mg/kg/hr
  ≥ 60kg: 0.005 mg/kg/hr
  ↑ by 0.001-0.002 mg/kg/hr | **Onset:** 5 mins
  **Peaks:** 10-20 min
  **Duration:** 3-4 hr | ↓ | - | - | -
| | | | | | | Dosing is for intubated patients HYDROmorphine 1st Line |

**Definitions**
- RASS: Richmond Agitation and Sedation Scale (see Table 1)
- MS: Mental Status
- HR: Heart Rate
- BP: Blood Pressure
- RESP: Respirations
- Pre-CARES: Nursing care ie baths, turns, suctioning, etc.
- TBI: Traumatic Brain Injury
- MAX: Maximum
- PRNs: given over 20 min in neonates

* **PRNs** given over 20 min in neonates
* **PRN pre-CARES** dosing should be ≤ hourly rate
* Do not use in heart block
* Atropine can cause sustained hypertension
* Frequently paired with opioid continuous infusion
* If use >72 hrs, then withdrawal can occur, primarily agitation, ↑ HR, N/V/D, ↓ sleep
* *PRNs* given over 20 min in neonates
* **PRN** pre-CARES dosing should be ≤ hourly rate
* ↓ HR, BP at ↑ doses/boluses
* Dosing is for intubated patients HYDROmorphine 1st Line
<table>
<thead>
<tr>
<th>OPiOIDS</th>
<th>DOsING</th>
<th>ONSET/ DURATION</th>
<th>MS</th>
<th>HR</th>
<th>BP</th>
<th>RESP</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>fentaNYL</td>
<td>Initial bolus: 1-2 mcg/kg IV (MAX 50 mcg)</td>
<td>Onset 2-3 min</td>
<td>↓</td>
<td></td>
<td></td>
<td></td>
<td>Best for hemodynamically UNSTABLE pts, TBI, post procedural due to short duration</td>
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<tr>
<td>PRN bolus = hourly infusion dose every hr</td>
<td>Duration 30-45 min</td>
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<tr>
<td>Initial Infusion:</td>
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<td>&lt; 60kg: 1 mcg/kg/hr</td>
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<tr>
<td>↑ by 0.5-1 mcg/kg/hr</td>
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<td>≥ 60kg: 0.5 mcg/kg/hr</td>
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<td>↑ by 0.25-0.5 mcg/kg/hr</td>
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<td>MAX infusion: 5 mcg/kg/hr</td>
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<tr>
<td>Morphine</td>
<td>Initial bolus: 0.05-0.1 mg/kg IV (MAX 4 mg)</td>
<td>Onset 5-10 min</td>
<td>↓</td>
<td></td>
<td></td>
<td></td>
<td>Use with caution in renal failure Histamine release</td>
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<tr>
<td>PRN bolus = hourly infusion dose every hr</td>
<td>Duration 4 hrs</td>
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<tr>
<td>Initial Infusion:</td>
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<tr>
<td>&lt; 60kg: 0.05 mg/kg/hr</td>
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<td>↑ by 0.01-0.02 mg/kg/hr</td>
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<td>≥ 60kg: 0.025mg/kg/hr</td>
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<td>↑ by 0.01-0.02 mg/kg/hr</td>
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<td>MAX infusion: 0.5 mg/kg/hr</td>
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<tr>
<td>BENZODIAZEPINES</td>
<td>DOsING</td>
<td>ONSET/ DURATION</td>
<td>MS</td>
<td>HR</td>
<td>BP</td>
<td>RESP</td>
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<tr>
<td>Midazolam</td>
<td>Initial bolus: 0.05-0.1 mg/kg IV (MAX 4 mg)</td>
<td>Onset 2-5 min</td>
<td>↓</td>
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<td>Resp depression and ↓ BP at high doses</td>
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<tr>
<td>Versed (Sedative dosing)</td>
<td>PRN bolus = hourly infusion dose every hr</td>
<td>Duration 30-45 min</td>
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<td></td>
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<td>Benzos associated with increased risk of delirium</td>
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<tr>
<td>Initial Infusion:</td>
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<tr>
<td>&lt; 60kg: 0.05 mg/kg/hr</td>
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<td>↑ by 0.02 mg/kg/hr</td>
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<td>≥ 60kg: 0.025mg/kg/hr</td>
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<td>↑ by 0.01-0.02 mg/kg/hr</td>
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<td>MAX infusion: 0.36 mg/kg/hr</td>
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<td>(higher dosing may be needed in refractory status epilepticus)</td>
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<tr>
<td>LORazepam</td>
<td>PRN or scheduled bolus: 0.05-0.1 mg/kg IV/PO every 2-6 hrs</td>
<td>IV Onset 2-3 min</td>
<td>↓</td>
<td></td>
<td></td>
<td></td>
<td>Longer acting benzodiazepine</td>
</tr>
<tr>
<td>Ativan</td>
<td>MAX initial dose 2mg</td>
<td>Duration 6 hrs</td>
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<td></td>
<td></td>
<td>Use with caution if planned extubation or TBI, consider intermittent PRN midazolam instead</td>
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<tr>
<td>*Rescue PRN doses: Give IV</td>
<td>PO 60 min</td>
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</tbody>
</table>
### ANESTHETICS

#### Propofol (Diprivan)

- **Initial bolus:** 1-2 mg/kg IV
- **Initial Infusion:** 25 mcg/kg/min 
  ↑ by 5-10 mcg/kg/min every 5-10 min to desired effect
- **MAX infusion:** 125 mcg/kg/min
- **Onset:** 2-3 min  
  **Duration:** 10-15 min
- **MONITORING:** Lactate, ABG, BMP, CPK, LFTs
- **Other:** Sedation Credentialled providers only (Anesthesia; PICU Attendings, Fellows, APPs)
- **Propofol-related infusion syndrome (PRIS):** ↑ risk with dose >83mcg/kg/min and/or duration >48hrs.
- **Dosing:** Formulated in 10% fat emulsion check TG if infusion >48hr or dose > 50mcg/kg/min
- **Other:** Do not use if pt has anaphylaxis to eggs
- **Dosing:** Does not provide analgesia
- **Dosing:** Used as “washout” for tachyphylaxis or as extubation “bridge”

#### Ketamine

- **Initial bolus:** 0.5-2 mg/kg IV
- **Initial Infusion:** 0.3 mg/kg/hr 
  ↑ by 0.01-0.02 mg/kg/hr
- **MAX infusion:** 1.5 mg/kg/hr
- **Onset:** 30-60 sec  
  **Duration:** 10-15 min
- **Emergence reactions:** vivid dreams, hallucinations, delirium
- **Pretreat or treat emergence reactions with benzodiazepines**
- **Laryngospasm, Hypersalivation Bronchodilation, Nystagmus**

***Consider Pediatric Pain/Supportive Care Consult if considering use of the following adjuncts

#### ADJUNCTS

<table>
<thead>
<tr>
<th><strong>PHENobarbital (Sedative dosing)</strong></th>
<th><strong>DOsing</strong></th>
<th><strong>ONSET/DURATION</strong></th>
<th><strong>MS</strong></th>
<th><strong>HR</strong></th>
<th><strong>BP</strong></th>
<th><strong>RESP</strong></th>
<th><strong>OTHER</strong></th>
</tr>
</thead>
</table>
| IV = PO (tablets, liquid) | 2.5 mg/kg/dose IV/PO every 12 hrs  
May ↑ to every 6-8 hrs  
and/or ↑ to 5 mg/kg/dose | **IV**  
Onset 2-3 min  
Duration 6 hrs | ↓↓ | ↓ | ↓↓ | ↓ | Long acting barbiturate  
Check levels daily (Goal range 20-25 mg/L)  
Levels > 60 mg/L toxic  
Myocardial depressant, coma, hypotension, apnea |
| PO | 60 min | | | | | | |

#### Methadone

- **Only ORAL (tablets, liquid) formulation routinely available:** inquire about IV availability before ordering
- **Dosing:** 0.05-0.1 mg/kg/dose PO/IV * every 6-8 hrs
- **MAX initial:** 10mg/dose
- **Single dose:** Onset 30-60 min  
  **Duration:** 4-8 hrs
- **Repeat doses:** Duration: 22-48 hrs  
  >100 hrs in some pts
- **Opioid/NMDA receptor antagonist**
- **MONITORING:** EKG at baseline, with dose increases and addition of other QTc prolonging meds, weekly while on therapy  
  Use with caution in hepatic impairment
### ATYPICAL ANTIPSYCHOTIC Dosing

<table>
<thead>
<tr>
<th>Weight Range (kg)</th>
<th>Dosage</th>
<th>Onset/Duration</th>
<th>MS</th>
<th>HR</th>
<th>BP</th>
<th>RESP</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>7-15</td>
<td>6.25mg every day PO (MAX 6 mg/kg/day)</td>
<td>Time to peak 30 min-3 hrs</td>
<td>-</td>
<td>↑</td>
<td>↓</td>
<td>-</td>
<td>Used for delirium and/or sedation. Start with bedtime dosing helps with sleep due to sedation effect. ↑ QTc. Monitoring: EKG at baseline, with dose increases and addition of other QTc prolonging meds, weekly while on therapy. CBC twice weekly: ↓ Hgb, WBC, PLT.</td>
</tr>
<tr>
<td>&gt;15-20</td>
<td>12.5mg every day (MAX 6 mg/kg/day)</td>
<td>1/2 life: 6 hr Metabolized 1/2 life: 12hr</td>
<td>-</td>
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<tr>
<td>&gt;20-40</td>
<td>18.5mg every day (MAX 8 mg/kg/day)</td>
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<tr>
<td>&gt;40-60</td>
<td>25mg every day (MAX 200 mg/day)</td>
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<tr>
<td>&gt;60</td>
<td>25-50mg every day (MAX 300 mg/day)</td>
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</tbody>
</table>

**Queetiapine Seroquel** Available as ORAL tablets only

MAY add PRN 1x daily dosing ± may ↑ to every 12 hrs

**Risperidone Risperdal** Available as ORAL tablets, liquid and oral disintegrating tablets

**Infants:** 0.05-0.1 mg PO twice daily  
**<5yrs:** 0.1-0.2 mg twice daily  
**≥5yrs:** 0.2-0.5 mg twice daily  
**Usual range:** 0.2-2.5 mg/day  
**MAX Doses:**  
**<20kg:** 1 mg/day  
**20-45 kg:** 2.5 mg/day  
**>45 kg:** 3 mg/day  

Time to peak w/in 60 min  
1/2 life: 20 hr

**TABLE 1. RICHMOND AGITATION-SEDATION SCALE**

<table>
<thead>
<tr>
<th>Score</th>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>+4</td>
<td>Combative</td>
<td>Overtly combative or violent; immediate danger to staff</td>
</tr>
<tr>
<td>+3</td>
<td>Very agitated</td>
<td>Pulls on or removes tube(s) or catheter(s) or has aggressive behavior toward staff</td>
</tr>
<tr>
<td>+2</td>
<td>Agitated</td>
<td>Frequent nonpurposeful movement or patient-ventilator dysynchrony</td>
</tr>
<tr>
<td>+1</td>
<td>Restless</td>
<td>Anxious or apprehensive but movements not aggressive or vigorous</td>
</tr>
<tr>
<td>0</td>
<td>Alert and calm</td>
<td></td>
</tr>
<tr>
<td>-1</td>
<td>Drowsy</td>
<td>Not fully alert, but has sustained (more than 10 seconds) awakening, with eye contact, to voice</td>
</tr>
<tr>
<td>-2</td>
<td>Light sedation</td>
<td>Briefly (less than 10 seconds) awakens with eye contact to voice</td>
</tr>
<tr>
<td>-3</td>
<td>Moderate sedation</td>
<td>Any movement (but no eye contact) to voice</td>
</tr>
<tr>
<td>-4</td>
<td>Deep sedation</td>
<td>No response to voice, but any movement to physical stimulation</td>
</tr>
<tr>
<td>-5</td>
<td>Unarousable</td>
<td>No response to voice or physical stimulation</td>
</tr>
</tbody>
</table>

**Procedure**

1. Observe patient. Is patient alert and calm (score 0)?  
   Does patient have behavior that is consistent with restlessness or agitation (score +1 to +4 using the criteria listed above, under description)?

2. If patient is not alert, in a loud speaking voice state patient’s name and direct patient to open eyes and look at speaker. Repeat once if necessary. Can prompt patient to continue looking at speaker.
   Patient has eye opening and eye contact, which is sustained for more than 10 seconds (score -1).
   Patient has eye opening and eye contact, but this is not sustained for 10 seconds (score -2).
   Patient has any movement in response to voice, excluding eye contact (score -3).

3. If patient does not respond to voice, physically stimulate patient by shaking shoulder and then rubbing sternum if there is no response to shaking shoulder.
   Patient has any movement to physical stimulation (score -4).
   Patient has no response to voice or physical stimulation (score -5).

Clinical Guideline
Sedation - HYDROmorphone
Pediatric Intensive Care Unit

This guideline should not replace clinical judgment.

Goal RASS
Low HR
Low BP

EXCLUSION CRITERIA: Allergy, MD request, severe acute neurologic disorder, epidural/PCA until d/c, ECMO, heart block
*** Exclude any sedation utilized for procedures in totals ***
* If patient has low HR or BP, then discuss with provider.

Admission/intubation through Hour 1
1. Load dexmedetomidine (DEXMED) 0.5-1 mcg/kg IV over 10 min (MAX 50 mcg) and start infusion at 0.4 mcg/kg/hr
2. Bolus HYDROmorphone 0.02 mg/kg (initial MAX: 1 mg/dose) IV every 15 minutes PRN to achieve goal RASS
   If a HYDROmorphone bolus is needed, consider starting HYDROmorphone infusion
   < 60 kg: start HYDROmorphone infusion at 0.01 mg/kg/hr
   ≥ 60 kg: start HYDROmorphone infusion at 0.005 mg/kg/hr
3. If not at goal RASS at end of first hour, re-bolus DEXMED 1 mcg/kg over 10 min (MAX 50 mcg) and ↑ DEXMED infusion to 0.8 mcg/kg/hr
4. Order scheduled or PRN acetaminophen or ibuprofen/ketorolac for fever or pain not associated with maintaining RASS

Goal RASS maintained?

no

yes

Hours 2 and 3
1. Continue current dose of DEXMED and/or HYDROmorphone infusions
2. If needed, follow progression outlined in 1st hour

no

yes

Hour 4 and every 4 hours after first 24 hours
1. Continue current dose of DEXMED and/or HYDROmorphone infusions
2. Bolus DEXMED 0.5-1 mcg/kg over 10 min (MAX 50 mcg) every hr PRN pre-CARES
3. Bolus HYDROmorphone hourly infusion dose every hour PRN RASS > goal, INITIAL

Goal RASS maintained?

no

yes

After the first 24 hours, reassess every 8 hours:
0800
1600
2400

1. Continue infusions and PRN orders
2. If < 3 boluses of any kind given in 8 hours to meet RASS goal, then
   a. ↑ HYDROMORPHINE by 0.001 mg/kg/hr at 0800 and 2400
   b. ↑ DEXMED by 0.2 mcg/kg/hr at 1600
   (do not include procedural or pre-CARES boluses in PRN counts)

Goal RASS consistently achieved?

no

yes

Confirm that the ordered RASS goal range in the electronic medical record is current.

If DEXMED 1.5 mcg/kg/hr, HYDROMORPHINE 0.1 mg/kg/hr, AND LORazepam 0.1 mg/kg/dose every 4 hours PRN RASS > goal is insufficient, “Guideline failure” reached.
Higher doses may be needed, but MD should be consulted for further strategy.
Consider Palliative/Supportive Care Consult: use of adjuncts

Prior to extubation
Consider increasing goal RASS.
Decrease HYDROMORPHINE and LORazepam PRNs by 50% and space frequency to every 4-6 hours
No PRNs for at least 4 hours prior to planned extubation.
Decrease or hold sedative infusions per APP, fellow or Attending MD.

For questions concerning this guideline, contact:
chorclinicalguidelines@vcuhealth.org

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Next expected update: April 2024
Clinical Guideline
Sedation - fentaNYL
Pediatric Intensive Care Unit

EXCLUSION CRITERIA: Allergy, MD request, severe acute neurologic disorder, epidural/PCA until d/c, ECMO, heart block
*** Exclude any sedation utilized for procedures in totals ***  
* If patient has low HR or BP, then discuss with provider.

Admission/ intubation through Hour 1

1. Load dexmedetomidine (DEXMED) 0.5-1 mcg/kg IV over 10 min (MAX 50 mcg) and start infusion at 0.4 mcg/kg/hr*
2. Bolus fentaNYL 1 mcg/kg (initial MAX: 50 mcg/dose) IV every 15 minutes PRN to achieve goal RASS
3. If a fentaNYL bolus is needed, consider starting fentaNYL infusion
   < 60 kg: start fentaNYL infusion at 1 mcg/kg/hr
   ≥ 60 kg: start fentaNYL infusion at 0.5 mcg/kg/hr
4. If not at goal RASS at end of first hour, re-bolus DEXMED 1 mcg/kg/over 10 min (MAX 50 mcg) and ↑ DEXMED infusion to 0.8 mcg/kg/hr*
5. Order scheduled or PRN acetaminophen or ibuprofen/ketorolac for fever or pain not associated with maintaining RASS

Goal RASS maintained?

yes
no

Hours 2 and 3

1. Continue current dose of DEXMED and/or fentaNYL infusions
2. If needed, follow progression outlined in 1st hour
1. First, maximize progression outlined in 1st hour, then
2. Continue fentaNYL 0.5-1 mcg/kg IV every 15 min (MAX 50 mcg/dose) PRN RASS > goal
3. If >3 boluses in 2 hrs, then ↑ fentaNYL infusion by 0.25-0.5 mcg/kg/hr
4. For RASS not achieved with PRN fentaNYL boluses, give lorazepam 0.1 mg/kg/dose IV (MAX initial 2 mg) ONCE

Goal RASS maintained?

yes
no

Hour 4 and every 4 hours after first 24 hours

1. Continue current dose of DEXMED and/or fentaNYL infusions
2. Bolus DEXMED 0.5-1 mcg/kg over 10 min (MAX 50 mcg) every hour PRN pre-CARES*
3. Bolus fentaNYL hourly infusion dose every hour PRN RASS > goal, INITIAL
1. Bolus fentaNYL hourly infusion dose every hour PRN RASS > goal, INITIAL
2. If >3 PRNs in 4 hrs, ↑ fentaNYL infusion by 0.25-1 mcg/kg/hr
3. For RASS goal not achieved with PRN fentaNYL, consider
   a. Re-bolus DEXMED 0.5-1 mcg/kg IV over 10 min (MAX 50 mcg) and ↑ DEXMED infusion by 0.2-0.5 mcg/kg/hr (up to 1 or 1.5 mcg/kg/hr)*; OR
   b. Add LORazepam 0.1 mg/kg/dose (MAX 2 mg) every 2-6 hrs PRN RASS > goal, REFRACTORY
4. Consider Palliative/Supportive Care Consult: use of adjuncts

Goal RASS consistently achieved?

yes
no

After the first 24 hours, reassess every 8 hours:
0800
1600
2400

1. Continue infusions and PRN orders
2. If < 3 boluses of any kind given in 8 hours to meet RASS goal, then
   a. ↓ fentaNYL by 0.25 mcg/kg/hr at 0800 and 2400
   b. ↓ DEXMED by 0.2 mcg/kg/hr at 1600
   (do not include procedural or pre-CARES boluses in PRN counts)

Prior to extubation
Consider increasing goal RASS.
Decrease fentaNYL and LORazepam PRNs by 50% and space frequency to every 4-6 hours
No PRNs for at least 4 hours prior to planned extubation.
Decrease or hold sedative infusions per APP, fellow or Attending MD.

Confirm that the ordered RASS goal range in the electronic medical record is current.

If DEXMED 1.5 mcg/kg/hr, fentaNYL 5 mcg/kg/hr, AND LORazepam 0.1 mg/kg/dose every 4 hours PRN RASS > goal is insufficient, “Guideline failure” reached.
Higher doses may be needed, but MD should be consulted for further strategy.
Consider Palliative/Supportive Care Consult: use of adjuncts

This guideline should not replace clinical judgment.

Goal RASS ______
Low HR ______
Low BP ______

For questions concerning this guideline, contact: chorclinicalguidelines@vcuhealth.org
Last updated: April 2021
Next expected update: April 2024
**Clinical Guideline**

**Sedation - Morphine**

**Pediatric Intensive Care Unit**

**EXCLUSION CRITERIA:** Allergy, MD request, severe acute neurologic disorder, epidural/PCA until d/c, ECMO, heart block

***Exclude any sedation utilized for procedures in totals***

*If patient has low HR or BP, then discuss with provider.*

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### Admission/Intubation through Hour 1

1. Load dexmedetomidine (DEXMED) 0.5-1 mcg/kg IV over 10 min (MAX 50 mcg) and start infusion at 0.4 mcg/kg/hr*
2. Bolus morphine 0.1 mg/kg (initial MAX: 4 mg/dose) IV every 15 minutes PRN to achieve goal RASS
3. If a morphine bolus is needed, consider starting morphine infusion
   - < 60 kg: start morphine infusion at 0.05 mg/kg/hr
   - ≥ 60 kg: start morphine infusion at 0.025 mg/kg/hr
4. If not at goal RASS at end of first hour, re-bolus DEXMED 1 mcg/kg over 10 min (MAX 50 mcg) and DEXMED infusion to 0.8 mcg/kg/hr*
5. Order scheduled or PRN acetaminophen or ibuprofen/ketorolac for fever or pain not associated with maintaining RASS

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### Hours 2 and 3

1. Continue current dose of DEXMED and/or morphine infusions
2. If needed, follow progression outlined in 1st hour

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### Hour 4 and every 4 hours after first 24 hours

1. Continue current dose of DEXMED and/or morphine infusions
2. Bolus DEXMED 0.5-1 mcg/kg over 10 min (MAX 50 mcg) every hour PRN pre-CARES*
3. Bolus morphine at hourly infusion dose every hour PRN RASS > goal, INITIAL

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### After the first 24 hours, reassess every 8 hours:

- **0800**
- **1600**
- **2400**

1. Continue infusions and PRN orders
2. If < 3 boluses of any kind given in 8 hours to meet RASS goal, then
   a. ↓ morphine by 0.01 mg/kg/hr at 0800 and 2400, and
   b. ↓ DEXMED by 0.2 mcg/kg/hr at 1600
   (do not include procedural or pre-CARES boluses in PRN counts)

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### Confirm that the ordered RASS goal range in the electronic medical record is current.

If DEXMED 1.5 mcg/kg/hr, morphine 0.5 mg/kg/hr, AND LORazepam 0.1 mg/kg/dose every 4 hours PRN RASS > goal is insufficient, “Guideline failure” reached.

Higher doses may be needed, but MD should be consulted for further strategy.

Consider Palliative/Supportive Care consult: use of adjuncts

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### Prior to extubation

Consider increasing goal RASS.
Decrease morphine and LORazepam PRNs by half and space frequency to every 4-6 hours
No PRNs for at least 4 hours prior to planned extubation.
Decrease or hold sedative infusions per APP, fellow or Attending MD.

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For questions concerning this guideline, contact:
chorclinicalguidelines@vcuhealth.org

Last updated: April 2021
Next expected update: April 2024
Sedation for Mechanical Ventilation Guideline

Executive Summary

Children’s Hospital of Richmond at VCU Sedation for Mechanical Ventilation Workgroup

References


Citation

Title: Sedation for Mechanical Ventilation Guideline

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Date: April 2021

Retrieval website: http://www.chrichmond.org/clinical-guideline-sedation

Example: