**Planned Extubation >48 Hours**
**Target State Behavioral Scale (SBS) -1 to -2**

**Use Pain, Agitation, & Delirium Assessment Tools**

### First Line Therapy

<table>
<thead>
<tr>
<th>Fentanyl IV²</th>
<th>Dexmedetomidine IV²</th>
</tr>
</thead>
<tbody>
<tr>
<td>2mcg/kg/hr</td>
<td>Start infusion at 0.5 mcg/kg/hr</td>
</tr>
<tr>
<td>Bolus 2mcg/kg Q 1hr PRN</td>
<td></td>
</tr>
<tr>
<td>FLACC ≥ 4, SBS &gt;0, or prior to procedure</td>
<td></td>
</tr>
</tbody>
</table>

#### Titrate Fentanyl²

- SBS -1 to -2?
  - Yes: Continue current therapy
  - No: Reassess

#### Titrate Dexmedetomidine³

- SBS -1 to -2?
  - No: Reassess
  - Yes: Continue current therapy

- FLACC ≥ 4?
  - Yes: Maximize Fentanyl² and Dexmedetomidine³ drips and consider alternative opioid
  - No: Reassess

**Excluding reversible causes of agitation⁴**

### Daily Interruption of Sedation (DIS)⁵

- Perform daily at 0900 and reassess Q30 min until SBS greater than -1, then resume drips at 50% of previous rate (discuss with MD/APP)

### Second Line Therapy

#### <6 months of age

- Midazolam IV 0.05 mg/kg Q1 hr PRN (Max 2 mg)

#### >6 months of age

- Lorazepam IV 0.05 mg/kg Q2 hr PRN (Max 2 mg)

- No: Reassess

#### Third Line Therapy

#### <6 mos and administering >3 non-procedural PRN doses/4 hr

- Midazolam Drip 6
  - Bolus 0.05 mg/kg (Max 2 mg) Q1 hr PRN

#### >6 mos and administering >3 non-procedural PRN doses/8 hr

- Lorazepam Drip 7
  - Bolus 0.05 mg/kg (Max 2 mg) Q2 hr PRN

- No: Reassess

#### Evaluate for delirium

- Consider use of an alternative opioid

### Inclusion Criteria

- Day of Life (DOL) <30 days: Norwood, Truncus, ASO, TAPVR, Open Chest, ECMO, IAA, All Neonatal Bypass
- DOL ≥30 days:
  - Hemodynamically unstable
  - Significant bleeding requiring multiple products
  - Multi-organ system dysfunction (MOSD)
  - Pulmonary disease
  - Intubated prior to OR
  - Pulmonary hypertension/crisis
  - Open chest
  - Arrhythmias

### Pain, Agitation, & Delirium Assessment Tools

- Pain Assessment Q1 hr minimum
- SBS Q1 hr & 30 minutes after an intervention
- CAPD Q12 hr at 0400 & 1600

### Fentanyl Titration

- If SBS is ≥1 or patient has received >3 non-procedural PRN doses within 4 hrs, increase by 1 mcg/kg/hr Q15 min until goal SBS (Max dose 4 mcg/kg/hr or 200 mcg/hr)
- If SBS is <1 or patient has received <1 non-procedural PRN doses within 4 hrs, decrease by 1 mcg/kg/hr Q15 min until goal SBS

### Dexmedetomidine Titration

- If SBS is ≥1, increase by 0.2 mcg/kg/hr Q15 min until goal SBS (Max of 1.5 mcg/kg/hr)
- If SBS is ≤1, decrease by 0.2 mcg/kg/hr Q15 min until goal SBS

### Contraindications:

- Severe bradycardia, hypotension, heart block

### Reversible Causes of Agitation

- Correct environmental and physical factors that could be causing discomfort and/or agitation (see delirium preventative measures)

### Midazolam Titration

- If SBS >1 or >3 non-procedural PRN doses are administered within 4 hrs, increase drip by 0.05 mg/kg/hr
- If SBS ≤1 or >3 non-procedural PRN doses are administered within 8 hrs, increase drip by 0.05 mg/kg/hr

### Lorazepam Titration

- If SBS >1 or >3 non-procedural PRN doses are administered within 8 hrs, increase drip by 0.05 mg/kg/hr
- If SBS ≤1 or >3 non-procedural PRN doses are administered within 8 hrs, increase drip by 0.05 mg/kg/hr

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