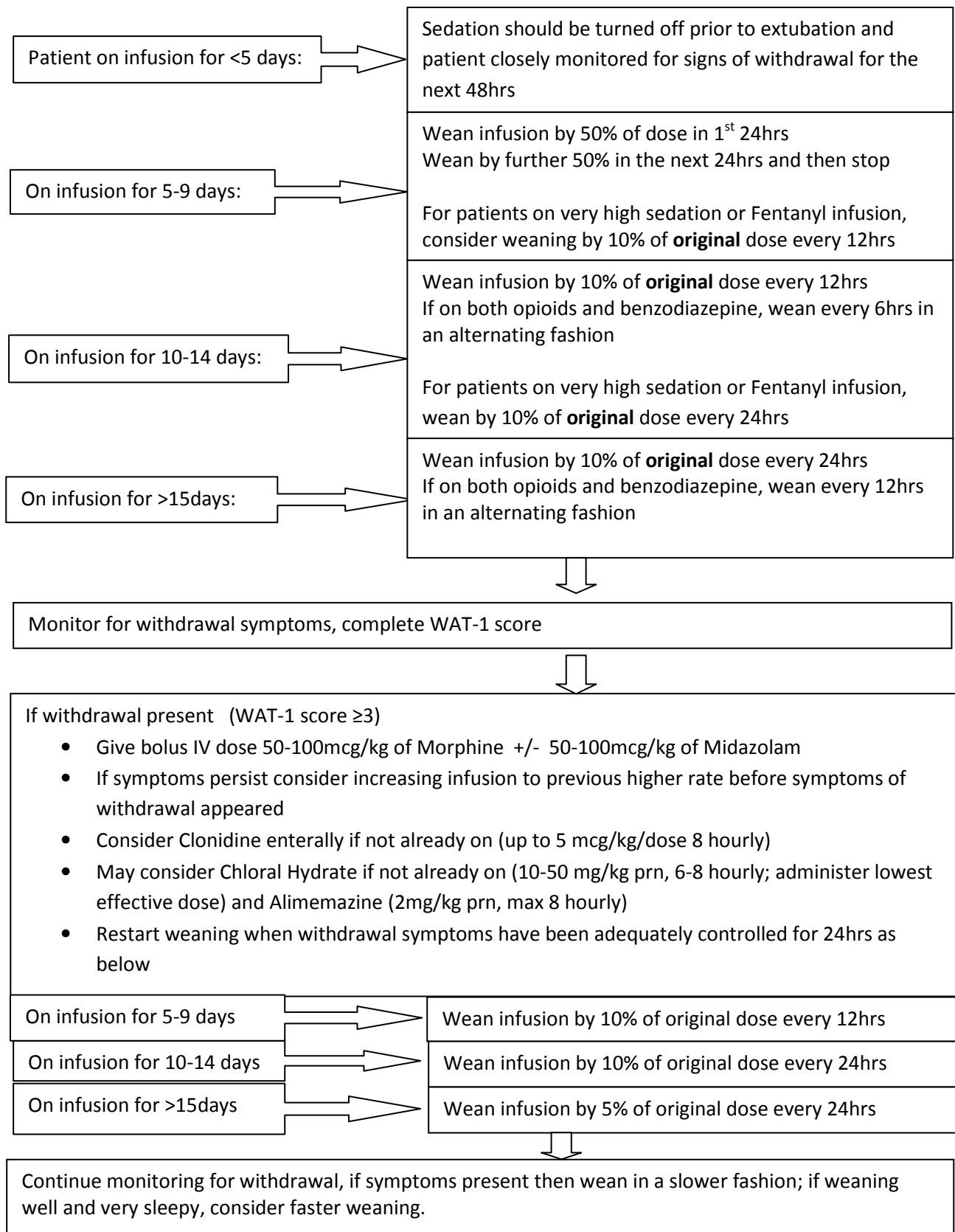


## PICU Sedation and analgesia weaning Guideline



### **Weaning from IV sedation to oral:**

Consider conversion to oral medication if tolerating oral feeds

#### **Morphine:**

Total IV dose of Morphine in 24 hours X 3 = total Oramorph dose in 24 hrs → Divide into 4 hourly doses

To wean off IV Morphine

1. Give 1<sup>st</sup> oral dose, wean infusion by 50% 30mins after dose
2. Give 2<sup>nd</sup> oral dose, turn infusion off 30min after dose

#### **Benzodiazepines:**

Total IV infusion dose of Midazolam in 24 hours divided by 12 = Total enteral Lorazepam dose

Divide into 6 hourly doses

To wean off IV Midazolam:

3. Wean infusion by 50% 30mins after 1<sup>st</sup> oral dose
4. Turn infusion off 30min after 2<sup>nd</sup> oral dose

### **Weaning oral sedation:**

Continue to wean oral medications and monitoring as IV weaning rate above (i.e 5-10% of original dose every 12-48hrs)

For patients on Morphine:

Once a dose of 100 mcg/kg/dose is maintained for 24hr, then wean frequency of dosing every 24hrs (i.e 4hrly -> 6hrly -> 8hrly -> 12hrly ->once daily then stop)

### **Wean Chloral Hydrate followed by Clonidine after Morphine and Midazolam is weaned off**

#### **Chloral Hydrate:**

Symptoms of withdrawal include paradoxical agitation, anxiety, and tremor.

If given regularly for: 5 – 10 days - reduce dose by 20% every 24 hours

>10 days – reduce dose by 10% every 24 hours

If symptoms of withdrawal appear consider increasing dose to previous higher dose before symptoms of withdrawal appeared for 24-48 hours and start weaning again.

#### **Clonidine :**

Converting IV Clonidine infusion to oral Clonidine (100% bio-availability): Reduce IV infusion to 1 mcg/kg/hr then commence on enteral clonidine 5mcg/kg/dose 8 hrly. If dose of IV Clonidine is less than 0.7 mcg/kg/hr – calculate total dose of clonidine in 24 hrs and divide into 8hrly doses and give enterally.

If Clonidine given for: <5 days – no weaning is necessary

5 – 10 days - reduce dose by 20% every 24 hours

>10 days – reduce dose by 10% every 24 hours

Monitor Blood Pressure 6 hourly while weaning Clonidine. If blood pressure increases by 50% from the previous 24 hours consider slowing the rate of weaning and increase dose to previous higher dose before symptoms of withdrawal appeared for 24-48 hours and start weaning again.

#### **References :**

1. The Children's Hospital in Philadelphia PICU sedation/analgesia weaning pathway
2. Sedation and analgesia withdrawal guidelines, Nottingham's Children's Hospital, Nottingham University Hospitals NHS Trust 2013
3. The Withdrawal Assessment Tool –Version 1 (WAT-1): an assessment instrument for monitoring opioid and benzodiazepine withdrawal symptoms in paediatric patients. L.S. Franck et al *Pediatr cri care Med.* 2008 November;9(6):573-580

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