Permission to use the Withdrawal Assessment Tool-1 (WAT-1)

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WAT-1 forms in different languages can be downloaded from:

http://familynursing.ucsf.edu/research-and-clinical-tools

Withdrawal Assessment Guidelines

Patients should have suspected iatrogenic withdrawal assessed and documented at least every 12 hours.

Pediatric Assessment:
Withdrawal assessment, especially in preverbal or nonverbal children, can be challenging. The WAT-1 is used to identify iatrogenic withdrawal syndrome. The nurse should tailor their assessments to the child’s developmental level, medical status and temperament using the WAT-1.

Definition of Iatrogenic Withdrawal Syndrome:
In patients weaning from ≥ 5 days of continuous infusion or round-the-clock narcotics, any patient receiving rescue therapy (defined as an opioid or benzodiazepine bolus or an increase in opioid or benzodiazepine infusion) to manage an increase in WAT-1 symptoms after the start of weaning and not for treatment of new pain or sedation needs. Available evidence identifies iatrogenic withdrawal as a WAT-1 Score of ≥ 3. Prominent manifestations include nervous system hyperirritability, autonomic system dysregulation, gastrointestinal dysfunction and motor abnormalities.

Definition of the Start of Weaning:
The date and time associated with a deliberate attempt to discontinue narcotics (opioids) and/or benzodiazepines.

Assessment Frequency and Documentation:
Assess and document the patient’s WAT-1 in the designated column of the Patient Care Flowsheet.

Start WAT-1 scoring from the first day of weaning in patients who have received narcotics (opioids) +/or benzodiazepines by infusion or regular dosing for prolonged periods (e.g., ≥ 5 days). Continue twice daily scoring until 72 hours after the last dose.
The WAT-1 is completed and documented in the PICU with the SBS at least once per 12 hour shift at 08:00 and 20:00 ± 2 hours until 72 hours after the last PRN narcotic (opioid) and/or benzodiazepine dose.

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More frequent assessment may be necessary in patients who show symptoms of withdrawal from narcotics (opioids) and/or benzodiazepines. The increased frequency of the WAT-1 assessments in these patients should follow the assessment – intervention – reassessment cycle for treating patients' withdrawal.

**Description:**
The WAT-1 is an 11 item/12 point scale for monitoring narcotic (opioid) and/or benzodiazepine withdrawal symptoms in pediatric patients.

**Assessment Method:**
1. Review the WAT-1, familiarizing yourself with the indicators and how they are scored.
2. Review nursing documentation in the previous 12 hours.
3. Complete a 2 minute observation period with the patient at rest.
4. Assess patient during a progressive arousal then assess patient during an observation period following the stimulus. Use progressive stimuli to elicit the patient’s response; specifically, using a calm voice, call the patient’s name. If no response, call the patient’s name and gently touch the patient’s body. If no response, assess the patient’s response to a planned noxious procedure, e.g., endotracheal suctioning. If a noxious procedure is not planned then, using a pencil/pen, provide < 5 seconds of direct pressure to the patient’s nail bed.
5. Complete a post-stimulus recovery observation period.

**Scoring Method:**
Presence and intensity of withdrawal symptoms consist of:

3 indicators obtained from the nursing documentation in the **previous 12 hours** are scored with one point:
1. **loose/watery stools** that are not consistent with the patient’s age, medical condition or baseline stooling pattern.
2. **vomiting/retching/gagging** that cannot be attributed to other causes or interventions.
3. **temperature elevation** that remains >37.8 more frequently than not during the previous 12 hours and not believed to be associated with an infection.

5 indicators assessed during a **2 minute observation** of the patient at rest are scored with one point:
1. **state behavior** based on observation (asleep/awake/calm = 0 or awake/distressed = 1) or based
on the SBS score for sedation in mechanically 
ventilated patients (SBS ≤ 0 = 0 or SBS ≥ +1 = 1). See SBS guidelines for instructions on 
completing the SBS score.

2. tremors that are moderate to severe and cannot be attributed to another clinical cause.

3. sweating that is observed and not related to an appropriate temperature regulation response.

4. uncoordinated/repetitive movements that are moderate to severe including head turning, leg 
or arm flailing or torso arching.

5. yawning/sneezing that is observed more than once in the 2 minute observation period.

2 indicators assessed during a progressive arousal stimulus scored with one point:

1. startle to touch that is severe

2. muscle tone that is increased

1 indicator assessed during an observation period following the stimulus scored with up to two points:

1. time to return to calm state that is greater than 5 minutes will receive 2 points. If the time to 
return to calm state is 2-5 minutes, it will receive 1 point.

The final WAT-1 score is the total sum of all indicators (0-12).

Interpretation:
A higher WAT-1 score indicates more withdrawal symptoms while a lower score indicates fewer

SBS

See http://www.marthaaqcurley.com/sbs.html for permission to use the SBS, guidelines and forms