Withdrawal Assessment Tool (WAT-1) Guidelines

What is the WAT-1?

The WAT-1 Tool is validated for pediatric patients to aid clinicians in the recognition of clinically significant iatrogenic withdrawal syndrome. Although explicitly validated for symptoms of opioid exposure, it is also commonly used to assess for withdrawal from benzodiazepine and alpha agonists, which present with similar symptoms and currently have no separate validated scoring systems.

When to start WAT- 1 scoring?

The provider will place a communication order in Compass when the WAT—1 scoring is initiated, along with the scoring frequency and the parameters for when to notify the provider. WAT—1 scoring should be ordered on all patients who have been exposed to > 3 days of opioid, benzodiazepine, or alpha agonist infusions when the infusion is discontinued, regardless of whether weaning medications are initiated. The WAT—1 tool will continue to be utilized until 72 hours after the infusions are discontinued **or** after the last dose of weaning medicines if they are initiated.

How do I score the WAT- 1?

Step 1. Review nursing documentation from the **previous 12 hours** and score

- **Loose/watery stools: Score 0** if none. **Score 1** if present.
- **Vomiting/wretching/gagging**: **Score 0** if none. **Score 1** if present.
- **Temperature > 37.8: Score 0** if the temperature is ≤37.8 for the majority of the 12 hours. **Score 1** if the temperature is >37.8 for the majority of the 12 hours.

Step 2. Before your assessment, complete a ***2-minute* pre-*stimulus observation:***

- **State: Score 0** if the patient is asleep or awake and calm/ cooperative. **Score 1** if the patient is awake and distressed during the 2 minutes before the stimulus.
- **Tremors**: **Score 0** if no or mild tremors are noted. **Score 1** point if moderate to severe tremors are noted.
- **Sweating: Score 0** if sweating is absent. **Score 1** point if sweating is present.
- **Uncoordinated/repetitive movements: Score 0** if movement is normal or only mildly uncoordinated or repetitive. **Score 1** if moderate to severe uncoordinated or repetitive movements such as head turning, leg or arm flailing, or torso arching are present.
- **Yawning/sneezing: Score 0** if none noted. **Score 1** if you observe yawn or sneezing.

Step 3: **One Minute Stimulus Observation**

During routine care, stimulate the patient by calling their name calmly. If there is no response, gently touch the patient. If there is still no response, assess the patient during planned noxious procedures, such as repositioning or suctioning.

- **Startle to touch: Score 0** if no or only mild startle. **Score 1** if moderate to severe startle occurs when touched during the stimulus.
- **Muscle Tone: Score 0** if normal tone. **Score 1** if tone increased during the stimulus.

Step 4: Post-stimulus Recovery:

- **Score 0** if patient calm in less than 2 minutes. **Score 1** if the time to return to a calm state is 2-5 minutes. **Score 2** if returning to a calm state exceeds 5 minutes.

How do I get a score?

Sum up all of the points scored to get the WAT-1 score.

What does the number mean?

A WAT-1 score ≥ 3 (or 1-2 points higher than the patient's baseline score as indicated in the provider's order) means the patient may be experiencing withdrawal. Providers should assess the patient to rule out other causes, such as sepsis, cardiac failure, respiratory distress, or gastrointestinal problems.

How often do I score the WAT- 1?

The WAT-1 is completed and documented **at least once per 12-hour shift until 72 hours after the last Opioid , benzodiazepine, or alpha agonist infusion is stopped or the last intermittent dose is administered**. It should also be **documented 1 hour after administering a rescue** dose of an opioid, benzodiazepine, or alpha agonist . More frequent assessment may be ordered in high-risk patients or those experiencing withdrawal symptoms.

When to Notify the Provider?

Notify the provider for a WAT-I score as indicated in the communication order. Usually, this will be a WAT-1 score ≥ 3; however, if the patient has preexisting symptoms such as a baseline tremor, diarrhea due to another cause, or fever from an infectious process, the provider may request to be notified for a higher score.

References:

Frank LS, Harris SK, SOetenga DJ, Amling JK, Curley MA (2008). The withdrawal Assessment Tool-1 (WAT- 1): an assessment instrument for monitoring opioid and benzodiazepine withdrawal symptoms in pediatric patients. Pediatric Critical Care Medicine 9 (6): 573-580.

Frank LS, Scoppettuolo LA, Wypij D, Curley MA (2012). Validity and Generalizability of the Withdrawal Assessment Tool- 1 (WAT-1) for monitoring iatrogenic withdrawal syndrome in pediatric patients. Pain 153: 142-148.

Ista, van DM, Gamel C, Tivvoel D, de HM (2007). Withdrawal symptoms in children after long-term administration of sedatives and/ or analgesics: A literature review. Assessment remains troublesome. Intensive Care Medicine. 1396-1406.

WITHDRAWAL ASSESSMENT TOOL VERSION 1 (WAT – 1)

Patient Identifier														
	Date:													
	Time:													
Information from patient record, previous 12 hours														
Any loose /watery stools	No = 0 Yes = 1													
Any vomiting/wretching/gagging	No = 0 Yes = 1													
Temperature > 37.8°C	No = 0 Yes = 1													
2 minute pre-stimulus observation														
State	SBS[1] ≤ 0 or asleep/awake/calm = 0 SBS[1] ≥ +1 or awake/distressed = 1													
Tremor	None/mild = 0 Moderate/severe = 1													
Any sweating	No = 0 Yes = 1													
Uncoordinated/repetitive movement	None/mild = 0 Moderate/severe = 1													
Yawning or sneezing	None or 1 = 0 ≥2 = 1													
1 minute stimulus observation														
Startle to touch	None/mild = 0 Moderate/severe = 1													
Muscle tone	Normal = 0 Increased = 1													
Post-stimulus recovery														
Time to gain calm state (SBS[1] ≤ 0)	< 2min = 0 2 - 5min = 1 > 5 min = 2													
Total Score (0-12)														

Withdrawal Assessment Tool (WAT-1) Instructions

1. Review nursing documentation from the **previous 12 hours** and score
   - **Loose/watery stools: Score 0** if none. **Score 1** if present.
   - **Vomiting/wretching/gagging: Score 0** if none. **Score 1** if present.
   - **Temperature > 37.8: Score 0** if the temperature is $37.8 for the majority of the 12 hour time period. **Score 1** if the **temperature is >37.8** for the majority of the 12 hour time period.
2. Before your assessment, complete a **2-*minute pre*-stimulus observation*:***
   - **State**: **Score 0** if the patient is asleep or awake and calm/ cooperative.
     Score 1 if the patient is awake and distressed during the 2 minutes prior to the stimulus.
   - **Tremors: Score 0** if no or mild tremors noted**. Score 1** point if moderate to severe tremors noted.
   - **Sweating: Score 0** if sweating is absent. **Score 1** point if sweating present.
   - **Uncoordinated/repetitive movements: Score 0** if normal movement or only mild uncoordinated or repetitive movement present. **Score 1** if moderate to severe uncoordinated or repetitive movements such as head turning, leg or arm flailing or torso arching are present.
   - **Yawning/sneezing: Score 0** if none noted. **Score 1** if observe yawn or sneezing.
3. One Minute Stimulus Observation

During normal care, stimulate the patient by calling their name in a calm voice. If no response, gently touch the patient. If there is still no response assess the patient during planned noxious procedure, such as repositioning or suctioning.

- **Startle to touch: Score 0** if no or only mild startle. **Score 1** if moderate to severe startle occurs when touched during the stimulus.
- **Muscle Tone: Score 0** if normal tone. **Score 1** if tone increased during the stimulus.

4. Post- stimulus Recovery:

   Score 0 if patient calm in less than 2 minutes. **Score 1** if the time to return to a calm state is 2-5 minutes. **Score 2** if the time to return to calm state is greater than 5 minutes.

To Score: Sum up all of the points scored to get the WAT-1 score.