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Nursing Resource: Assessment and Management of Stimulant Withdrawal

Stimulant withdrawal is primarily a syndrome of moderate psychological distress and relatively mild physical symptoms. The stimulant substances frequently used and abused for recreational purposes include cocaine, crack cocaine, methamphetamine and prescription stimulants such as ritalin. The dopamine surge and relative physical and psychological overstimulation that occurs with the use of these drugs is often followed by a 'crash' and withdrawal symptoms when they are abruptly stopped. People experiencing stimulant withdrawal often report dysphoric and low mood, fatigue, and exhaustion and conversely, irritability, anxiety, and insomnia. Observations include agitation, emotional dysregulation, excessive eating and sleeping, and impulsive and risky behaviours due to severe cravings and inclination to go out and seek their substance of choice. Unlike alcohol or opioid withdrawal, stimulant withdrawal is neither life threatening nor does it cause severe medical issues. Pharmacotherapy options are usually directed toward targeted symptom relief.

Stimulant use can cause psychomotor agitation, anxiety, paranoia and psychosis. These symptoms may persist during withdrawal. Methamphetamine withdrawal is not infrequently associated with persistent psychosis, lasting days, to sometimes weeks, after the last use.

Telephone triage

- If the patient is impaired or in severe distress and not making sense, ask them to pass the phone to someone in the household who is more coherent and can give you more reliable information
- Remain calm and reassure the patient that you are here to help
- Find out what the patient's agenda is for the phone call, what they are asking for or concerned about
- Assess substance use history
    - Pattern of stimulant use - Which stimulants (cocaine, crack cocaine, methamphetamine, prescription stimulants, such as ritalin,dexedrine) are used, how frequently, by which routes (ie. oral, nasal, smoked or intravenous), and when they started using (ie. age or how many months/years ago).
    - Date and time of last stimulant use.
    - If using intravenously, ask about sharing and/or reusing needles or other injection equipment (spoons, filters, etc)
    - Any other substance use - alcohol, opioids, benzos, prescription meds
    - History of withdrawal - Usual timeline and severity of withdrawal symptoms. What has helped in the past with their withdrawal?
- Assess current symptoms

    - Physical - nausea or vomiting, chills/sweats, symptoms of IV site infections, body aches, or any injuries
    - Mental - low mood, suicidality, restlessness, anxiety, irritability, insomnia, disorganized thinking, intrusive thoughts, auditory or visual hallucinations, cravings
- Review medical history and chronic meds (patient history and chart). If they are prescribed chronic meds, ask when they actually took them last.
- Decide whether they need to be assessed in person:
    - Suicidal ideation and unable to make a safety plan over the phone
    - Severe agitation or mental distress
    - New symptoms of psychosis: disorganized thinking, delusional beliefs, disclosure of auditory or visual hallucinations
    - Concern about possible bacteremia, endocarditis, osteomyelitis/discitis, etc
    - Evidence to suggest the patient may have unstable vital signs or significant medical complications (eg postural dizziness, palpitations, audible shortness of breath, or chest pain).
    - Possible injuries related to high risk behaviors
    - Symptoms of unstable angina or MI (Stimulant use can cause vasospasm leading to acute coronary syndrome. The patient may not report or present with these conditions until they have stopped using.)
    - RN concern - strong feeling the patient should be assessed in person

Assessment (either via phone/video or in person if appropriate):
Try to collect as much info as possible before calling the MD... but in the case of severe withdrawal or unstable patient, call sooner so that treatment can be initiated while you continue to gather information.

- History
    - Substance use history, PMH, meds as above. You can get more details about their stimulant use over time and whether it has changed more recently due to the pandemic or other situational factors.
    - Complete a list of the patient's report of withdrawal symptoms, and observations by other persons available to give collateral information
    - Medical health history: do they have any chronic illnesses (T2DM, CKD), any recent illnesses or injuries or any new or distressing symptoms?
    - Mental health history: Have they ever experienced mental health or psychotic symptoms? If yes, when was that, and did they receive any treatment? Are they experiencing any symptoms at this time, such as: depression, anxiety, disorganized thinking, paranoid or delusional beliefs, hallucinations)? Have they ever received medications for hallucinations or psychosis?
    - Living situation - where do they live, who lives with them, any acute safety concerns at home, is there a reliable/sober person at home who can help them with their withdrawal?

    - Circumstances of withdrawal - are they actively trying to stop using or are they just unable to obtain stimulants (cocaine, methamphetamine or ritalin) at the moment? Is that likely to change?
    - Treatment goals - Are they interested in medication to help decrease their withdrawal symptoms?
    - COVID-19 symptoms or contacts, recent travel history if applicable
- Physical exam (in person, or limited assessment done via video)
    - Vitals, gluc, general impression (well vs unwell, general mental status)
    - Physical signs of withdrawal - vomiting, agitation, sweats, psychomotor agitation
    - It may be necessary to defer the full head-to-toe exam until the patient's symptoms have improved
    - Mental health signs of withdrawal or psychosis: disorganized thinking or speech, disorganized or agitated behaviours
    - Don't forget to assess for possible infection, injury and/or trauma in the patient with altered mental status, sweats, tachycardia, vomiting, etc
- Info from the chart:
    - Any recent lab results, details of past treatment for substance use disorder, if available, mental health history including psychosis (specifically stimulant use related psychosis), previous pharmacotherapy for mental health disorders, including psychosis

In-person medical management:
(note that these are guidelines, not medical directives - you will need to consult a physician for orders as usual)

- If the patient has severe vomiting or signs of dehydration or acute infection, start an iv
- If mental health symptoms are primarily related to dysphoria, low mood or suicidality, assess for suicide risk and discuss with attending MD and/or mental health workers in the community
- If mental health symptoms are primarily related to irritability, agitation, insomnia, or psychosis, consult MD about benzodiazepine and/or antipsychotic treatment. For those with severe mental health symptoms such as severe behavioral dysregulation, physical aggression or violence, rapid acting (im or iv) medication may be advisable.
- Labs
    - Uncomplicated stimulant withdrawal generally doesn't require any labs, but if there is diagnostic uncertainty or concern about co-occurring infection or medical illness (including acute dehydration due to severe vomiting/diarrhea, chest pain or other symptoms of stimulant cardiac effects) then they may be useful
    - Consider iStat Chem8, VBG, troponin if clinically appropriate
    - Consider: CBC, lytes, BUN, Cr, LFTs, gluc. ETOH and/or Tylenol/ASA levels and urine drug screen if overdose/co-ingestion suspected, appropriate cultures if infection suspected, STI/BBI testing if pt is at risk and hasn't been tested recently

Outpatient medical management:

- During the COVID-19 pandemic, we are trying to support physical distancing and self-isolation measures by assessing and treating patients at home whenever possible. Innovative approaches to pandemic withdrawal management might include dispensing medication and having it delivered to the patient's home, ideally to be taken by the patient with the assistance of a reliable household member and in consultation with a nurse by phone as needed.
- If the phone triage process determines that the patient does not need to be seen in person, proceed with the full assessment by phone.
- If the assessment reveals mild withdrawal symptoms, encourage oral hydration and basic supportive care (including basic symptom management meds like tylenol or gravol if needed), and ensure the patient can call back if symptoms worsen.
- If the assessment reveals moderate-severe withdrawal, including mental health distress or insomnia, but no indications for in-person assessment and management, consider appropriateness for outpatient management. They should:
    - Be reasonably medically stable
    - Be safe at home and have at least one responsible household member who can assist with their treatment
    - Be able to contact the nursing station (by phone, text, or video) for ongoing follow up, and be able to get to the nursing station if needed
- Additional considerations for outpatient withdrawal management
    - The household member taking responsibility for the medication and treatment assistance should be clearly identified and the nurse should speak with them directly to ensure they understand and consent to this role
    - If sedative medication is being considered, the assistant may need to speak with a nurse or physician daily for reassessment and dose adjustments until symptom relief is reached - ensure there is a plan for how this will happen.
- Items to include in the package delivered to the household
    - Medications (clearly labeled) - discuss with MD what quantity to dispense
    - Instructions for the assistant, and a flow sheet for them to record assessments done and meds given
    - Contact information for the nurse monitoring the treatment
    - Patient handouts, such as the "Helping someone through stimulant withdrawal" info sheet, resources from SLFNHA, CAMH, etc.

Usual pharmacotherapy for of stimulant withdrawal related symptoms:

- Headache, body aches, pain
    - Tylenol 325-1000mg po q6h prn
    - Ibuprofen 400-600g po q8h prn OR Naproxen 250-500mg po q12h prn
- Nausea/vomiting
    - Gravol 25-50mg po q4-6h prn
- Insomnia (choose one - don't give multiple different meds for hs sedation)

    - Trazodone 50-100mg po qhs prn
    - Benadryl 25-50mg po qhs prn
    - Gravol 50-100mg po qhs prn
    - Quetiapine 25-100mg po qhs prn for insomnia associated with psychotic symptoms (start low and titrate to effect)
- Irritability, agitation or anxiety associated with severe craving
    - Lorazepam 1-2mg po bid prn, suggested maximum 4mg per day
    - Quetiapine 25mg po q6h prn for daytime impulsivity or agitation in someone already taking it for insomnia (if they don't find the smaller dose overly sedating)
- Stable or known psychotic symptoms for which the patient has insight and expresses confidence to manage, and where there is someone with them to monitor their symptoms:
    - Olanzapine 5mg po bid prn (or whatever dose has worked for them before)
    - Haloperidol 2.5-5mg po bid prn (if olanzapine is unavailable)
    - If haloperidol is given, consider also providing a prn medication for extrapyramidal side effects (dystonia, akathisia, parkinsonism)l: Cogentin 1-2mg po q8h prn, or Benadryl 25-50mg po q6h prn

Management of severe agitation or stimulant related psychosis, where assessment and treatment in person is warranted:
The first priority is safety. If the patient is agitated and behaviourally activated, prioritize and establish patient and provider safety. Provide a quiet, low stimulation environment, as much as possible. Offer verbal support in a calm voice. Consult MD for further management suggestions including pharmacotherapy for symptom management.

- Oral sedatives and/or antipsychotics if patient is cooperative enough
    - Lorazepam 1-2mg po q1h prn, suggested maximum 6-8mg per day
    - Olanzapine 5-10mg po q4h prn, suggested maximum 30mg per day
    - Haloperidol 5-10mg po q4h prn, suggested maximum 20mg per day
    - If haloperidol is given, observe for extrapyramidal side effects (dystonia, akathisia, parkinsonism) and if they develop, give: Cogentin 1-2mg po/iv q8h prn, or Benadryl 25-50mg po/iv q6h prn
- Fast-acting medications (im or iv formulations) may be required for more severe agitation, behavioural dysregulation or aggressive behaviours
    - Lorazepam 1-2mg im/iv q1h prn, suggested maximum 6-8mg per day
    - Haloperidol 5-10mg im/iv q1-4h prn, suggested maximum 20mg per day (Haloperidol and Lorazepam can be mixed together and dosed in one syringe when expedient delivery is required)
    - Olanzapine 5-10mg im q4h prn, suggested maximum 30mg per day
    - **NOTE:** there are isolated reports of fatalities in patients who received IM olanzapine and IM lorazepam together, and this combination can be associated with hypotension - use caution and monitor closely if these medications need to be used together

- Consider the use of physical restraints if needed for patient and provider safety - but ensure very close monitoring if restraints are used
- If physical restraints or multiple doses of im/iv sedative medications are required, we recommend psychiatry consultation to help guide further management