

General:

- Early-stage withdrawal with mild symptoms does not generally require treatment in an ICU setting. Full-blown delirium tremens, on the other hand, often requires more vigilant monitoring than can be provided on many general medical or surgical units.

Non-pharmacological therapy:

- A calm, nonthreatening, protective environment with frequent verbal orientation and reassurance should be provided to allay anxiety and fear and to minimize agitation

Pharmacological therapies (general principles):

- The principle underlying pharmacotherapy is the administration of a cross-tolerant agents to achieve light to moderate sedation to ameliorate the severe manifestations of withdrawal (including autonomic and psychomotor hyperactivity), provide subjective relief, protect the patient from self-harm, and allow specific therapeutic interventions until spontaneous recovery occurs.

- The agent of choice is a benzodiazepine, given orally in milder cases or i.v. in more severe withdrawal states. Options include:

(i) midazolam administered by infusion and titrated to effect

(ii) Diazepam
- given initially in titrated doses of 5 to 10 mg, at intervals as frequent as every 10 minutes if necessary, until a calm but awake level of consciousness is achieved.
- Subsequent dosing at 5 to 20 mg every 4 to 6 hours is typically required with this agent.

benzodiazepines:

(i) Barbiturates

- The most commonly used agent is phenobarbital. The shorter-acting barbiturate pentobarbital also has been employed.

(ii) Oral ethanol

- has been used but is discouraged, in part because of the risks of aspiration and gastric irritation, and also because their use can be interpreted as reinforcing the acceptability of using alcoholic beverages, either in general or for treatment of withdrawal symptoms.

(iii). Propofol

- is effective, but it is not a first-line agent and is not recommended unless the airway is secure.

other sedative hypnotics:

(iv) Haloperidol and other neuroleptics:

- Haloperidol and other neuroleptic agents are not routinely used because they can lower the threshold for seizures. In selected cases, haloperidol may be used in conjunction with benzodiazepines for marked agitation or hallucinations, but this agent or similar drugs should not be used as monotherapy.

Pharmacological therapies (specific agents)

treatment

alcohol withdrawal

manifestations

general

- Ethanol withdrawal is common among hospitalized patients, either as a primary reason for admission or as a development during hospitalization for some other illness or injury.
- It is a potentially fatal syndrome that occurs after abrupt discontinuation or decrease in consumption of ethanol in individuals who regularly consume ethanol-containing beverages.

stage 1

Stage 1

- The first stage occurs 6 to 24 hours or more after the last drink or after a somewhat longer period of markedly decreased ethanol intake.
- Manifestations include anxiety, restlessness, decreased attention, tremulousness, insomnia, and craving for alcoholic beverages.

stage 2

Stage 2

- Stage 2, which occurs about 24 hours after the onset of abstinence, is characterized by hallucinations, misperceptions, irritability, and vivid dreams.
- Hallucinations may be auditory, but more often they are visual or tactile. Formication, the delusional sensation of insects crawling on the skin, and vivid or threatening visual hallucinations are particularly common.
- During this stage, the patient may appear otherwise lucid or somewhat confused, hypervigilant, and easily startled or misled.

stage 3

Stage 3

- In stage 3, which commonly occurs 7 to 48 hours after cessation of drinking, seizures occur, usually of the grand mal variety. The seizures classically manifest as a cluster of brief, tonic-clonic convulsions, at one time referred to as "rum fits."
- A relatively lucid interval, ranging from hours to 2 or 3 days, is sometimes seen between stages 3 and 4.

stage 4

Stage 4

- Stage 4 manifests 2 to 6 days, or more, after initiation of abstinence and consists of a global confusional state associated with signs of neuronal excitation and severe autonomic hyperactivity. Tremors, hallucinations, and seizures are common during this stage. Hyperadrenergic manifestations may include diaphoresis, flushing, mydriasis, tachycardia, hypertension, and low-grade fever.

hyperautonomic symptom treatment:

1. Clonidine

- may be administered if hyperautonomic symptoms are prominent.
- Typical oral dosing is 75-150mcg every 6 to 12 hours.

2. beta-Adrenergic receptor blockers

- not recommended for routine use, but, barring contraindications, they may be considered in selected cases as adjunctive agents for controlling severe hyperadrenergic manifestations.

withdrawal seizures

- Withdrawal seizures are managed primarily with benzodiazepines, which usually are effective at the doses used for sedation.
- Concomitant use of other anticonvulsants also can be considered. Barbiturates may be used for this purpose, but phenytoin is usually ineffective unless the seizures are due to a specific cause other than alcohol withdrawal, such as underlying epilepsy or a complicating acute disorder of the CNS (e.g., meningitis, head trauma).

tapering

- Once severe manifestations have been controlled with parenteral sedation for a period of at least 24 hours, tapering of the dose can be attempted. If tapering of sedation is tolerated, further gradual tapering is attempted, with the goal of substituting oral for parenteral benzodiazepine administration.