

SECTION: R-9

PROTOCOL TITLE: Withdrawal Syndromes

REVISED: September 30, 2010

GENERAL COMMENTS: This protocol includes withdrawal from alcohol, benzodiazepines, and GHB analogs, as they have similar presentations, physiology and treatments. A patient undergoing active withdrawal may mimic hyperdynamic toxicity, and may be difficult to diagnose. These patients have many of the same risk factors as patients in hyperdynamic crisis including agitated delirium, positional asphyxia, hyperthermia, and seizures. Other patients withdrawing from stimulants may have severe cravings, paranoia, suicidal ideations, exhaustion, and other symptoms. Good clinical judgment is mandatory when dealing with these situations to decide when to (and when not to) treat the patient.

BLS SPECIFIC CARE: *See adult General Toxicological Care Protocol R-1*

- Calm low stimulus environment
- Monitor Temperature as feasible. Cool as appropriate
- If suspected hyperthermia, Allow for adequate heat dissipation
- Anticipate possible seizures
- If pediatric patient, determine patient's color category on length based resuscitation tape (Broselow Tape)
- Restrain as necessary
- Obtain patient's temperature and cool/warm as necessary
- Position patient as appropriate
- Attempt to calm patient and attempt to provide low stimulus environment

ILS SPECIFIC CARE: *See adult General Toxicological Care Protocol R-1*

ALS SPECIFIC CARE: *See adult General Toxicological Care Protocol R-1*

Attempt to identify co-morbid factors and other medical issues, including poly-pharm involvement, and closed head injury.

Anticonvulsant therapy

- Valium (diazepam):
 - ♦ Adult:
 - IV/IO: 2-10 mg every 5-10 minutes as needed to a maximum of 20 mg
 - PR/IM: 5-10 mg every 5-10 minutes as needed to a maximum of 20 mg
 - ♦ Pediatric:
 - IV/IO: 0.1-0.2 mg/kg every 5 minutes as needed to a maximum total dose of 10 mg
 - PR/IM: 0.5 mg every 5 minutes as needed to a maximum total dose of 10 mg

- Versed (midazolam):
 - ♦ Adult:
 - IV/IO: 0.5-2.5 mg every 5-10 minutes as needed to a maximum of 5 mg
 - IN (intranasal): 5 mg (2.5 mg each nare) to a maximum total dose 5 mg
 - IM: 5 mg to maximum dose 5 mg
 - ♦ Pediatric:
 - IV/IO/IM: 0.05-0.2 mg/kg every 5-10 minutes as needed to a maximum total dose of 10 mg
 - IN/PR: 0.2 mg/kg every 5 minutes as needed to a maximum total dose of 5 mg

Chemical Sedation:

Do not administer/discontinue administration if:

- Systolic BP < 90 mmHg
 - Respiratory rate, SpO₂ and/or mental status diminishes
- Valium (diazepam):
 - ♦ Adult: 2-5 mg every 5-10 minutes as needed to maximum of 10 mg.
 - ♦ Pediatric:
 - IV/IO: 0.1mg/kg IV every 5-10 minutes as needed to maximum of 10 mg
 - Versed (midazolam):
 - ♦ Adult:
 - IV/IO: 0.5-2.5 mg every 5-10 minutes as needed to maximum of 5 mg
 - IN: 5 mg (2.5 mg each nare) to a maximum total dose 5 mg
 - IM: 5 mg to maximum dose 5 mg
 - ♦ Pediatric:
 - IM/IV/IO: 0.05 mg/kg every 5-10 minutes as needed to maximum of 2.5 mg
 - IN/PR: 0.2 mg/kg every 5 minutes as needed to a maximum total dose of 5 mg
 - Haldol (haloperidol):
 - 2.0-5.0 mg every 5 minutes to a maximum of 10 mg
 - May possibly lower seizure threshold
 - Consider co-administration of Benadryl to mitigate possible EPS

Anti-emetics:

- Zofran (ondansetron)
 - ♦ Adult: 4 mg
 - ♦ Pediatric: 0.1 mg/kg to a maximum of 4 mg
- Benadryl (diphenhydramine)
 - ♦ Adult: 25-50 mg
 - ♦ Pediatric: 1-2 mg/kg to a maximum of 25 mg

WITHDRAWAL SYNDROMES

PHYSICIAN PEARLS:

General Withdrawal Symptoms:

Withdrawal does not require complete abstinence from a drug, simply reaching sub-normal (for that patient) levels can make a patient symptomatic. Early withdrawal consists of mild anxiety and craving. This progresses in severity to excessive adrenergic effects including tachycardia, hyperventilation, systolic hypertension, diaphoresis, low-grade fever, hallucinations, intense anxiety, tremor, and insomnia. Some patients (up to 50% in cases of alcohol, and GHB) may experience true delirium, severe hyperthermia and seizures.

Comparison of GHB Analogs, Benzodiazepines, and Alcohol Withdrawal Syndromes

	Onset/Duration	Autonomic Instability	Neuro-Psychiatric Symptoms	Mortality
GHB	1-6 Hours to 14 days	Mild	Severe	Unknown
Benzodiazepines	1-3 Days	Moderate	Moderate	1%
Alcohol	6-12 Hours to 7 days	Severe	Moderate	5-15%

Adapted from "GHB Withdrawal Syndrome" (Miotto & Roth, et al, March 2001)

While the delirium associated with withdrawal is the result of abstinence rather than ingestion from certain drugs, the delirium itself continues to pose a life threat to the patient, especially with regard to restraint and pharmacologic agents used.

Use of Haldol with patients suffering from active withdrawal from GHB, alcohol, or GHB analogs is relatively contraindicated in the prehospital setting due to these drugs effect on seizure threshold, heat production and general side effects that may complicate care.

With marked agitation, liberal use of low dose benzodiazepines may be very helpful in relieving s/s, as well as prevention of myoclonic tremors and/or seizure activity.