Psychiatric Hospital at Vanderbilt

CENTRAL NERVOUS SYSTEM DEPRESSANT PROTOCOL(CNSDP)– PHV			
Signature	**Initials**	**Signature**	**Initials**

Criteria for initiation of CNSDP Protocol is based on the patient's report and/or documented history of recent or long term use of CNS depressants (hypno-sedatives, benzodiazepines, barbiturates) and/or verification of + UDS of same substances.
(Caution: Phenobarbital is not recommended for use in Pregnancy).

Protocol Instructions:

- Notify MD for initiation of CNSDP Protocol if patient meets above criteria.
- Patient to remain on Seizure Precautions for the duration of the CNSDP Protocol.
- Assess and record vital signs and signs/symptoms q 4 hours (observe for objective signs).
- Document assessments and vital signs on the CNSDP Flowsheet.
- At the first sign of progression from mild to moderate/severe withdrawal signs, begin q 1 hour assessment and vital sign schedule. If all signs return to mild status (after a minimum of 2 hourly checks), resume q 4 hour assessment and vital sign schedule.
- If patient does not display symptoms of CNS depressant withdrawal within 72 hours, discontinue the protocol.
- Initiate Phenobarbital Load when patient displays at least 2 moderate to severe signs from the list below.
- Continue to assess patient and record vital signs hourly prior to the administration of each Phenobarbital dose.
- Discontinue Phenobarbital Load when patient displays 2 or more of the following symptoms, indicating intoxication:

  - Patient asleep/difficult to arouse
  - Ataxic (unsteady gait)
  - Dysarthric (thick tongue)
  - Nystagmus
  - Labile Mood

MILD WITHDRAWAL SIGNS *Mark (+) if Present*	**DATE:** / **TIME:**	BASELINE								
Blood Pressure										
Pulse: Record beats per minute (bpm)										
Mild agitation, irritability										
Mild restlessness, anxiety										
Lightheadedness / dizziness										
Paraesthesia (tingling sensation)										
Mild tremors										
Nausea / anorexia										
Mild diaphoresis										
Insomnia										
TOTAL # Mild Signs Present										

MODERATE to SEVERE WITHDRAWAL SIGNS *Mark (+) if Present*	BASELINE								
Hypertension: Increase in DBP greater than or equal to 20 mm Hg in 2 hrs or less									
Tachycardia: Increase in pulse =greater than or equal to 20 bpm in 2 hrs or less									
Marked increase in agitation, irritability									
Marked increase in anxiety; very restless									
Progressive confusion/disorientation									
Increasingly severe fasciculation (Muscle twitching)									
Increasingly severe tremors									
Vomiting / dry heaves									
Increasingly severe diaphoresis									
Pre-seizure activity (e.g., aura, bright lights)									
Increasingly severe visual hallucinations									
Increasingly severe tactile hallucinations									
TOTAL # Moderate to Severe Signs Present									
Initials									

Patient has met the criteria for initiation of Phenobarbital Load by scoring at least 2 Moderate to Severe Signs at _____ (Time)

on _____ (Date) Initials: _____

Psychiatric Hospital at Vanderbilt

CENTRAL NERVOUS SYSTEM DEPRESSANT PROTOCOL (CNSDP) FLOWSHEET - PHV

Medication:

- Phenobarbital 120 mg po q 1hr prn; Initiate when patient meets CNSDP scoring criteria and discontinue when patient displays 2 or more symptoms of intoxication as per protocol.
- **Hold dose for the following:** If *baseline* BP less than or equal to 100/70, hold for BP less than or equal to 80/50; if *baseline* BP greater than 100/70, hold for BP less than 90/60; hold for pulse less than 60, resp less than 12.
- **Maximum cumulative dosage not to exceed 2000 mg** (unless additional orders received).

	TIME	DATE	BP	PULSE	DOSE (mg)	CUMULATIVE DOSE (mg)	INITIALS
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

Discontinue Phenobarbital Load when patient displays 2 or more of the following symptoms, indicating intoxication:

- Patient asleep/difficult to arouse
- Ataxic (unsteady gait)
- Dysarthric (thick tongue)
- Nystagmus
- Labile Mood

PHENOBARBITAL CUMULATIVE DOSE SCHEDULE				
1 = 120 mg	6 = 720 mg	11 = 1,320 mg	16 = 1,920 mg	21 = 2,520 mg
2 = 240 mg	7 = 840 mg	12 = 1,440 mg	17 = 2,040 mg	22 = 2,640 mg
3 = 360 mg	8 = 960 mg	13 = 1,560 mg	18 = 2,160 mg	23 = 2,760 mg
4 = 480 mg	9 = 1,080 mg	14 = 1,680 mg	19 = 2,280 mg	24 = 2,880 mg
5 = 600 mg	10 = 1,200 mg	15 = 1,800 mg	20 = 2,400 mg	25 = 3,000 mg

Signature	Initials	Signature	Initials

Management of Overdose: complications, antidotes, lethal doses

Acetaminophen	Hepatotoxicity: peaks at 72–96 hrs. Complete recovery generally day 4, but injury worse for alcoholics. Mortality: 1%–2%. Antidote/treatment: *Acetylcysteine.* Potential lethal dose: *140 mg/kg*
Alcohol	Respiratory depression. Antidote/treatment: *None* Potential lethal dose: *350–700 mg (serum)*
Amphetamines	Seizures; avoid neuroleptics. Antidote/treatment: *None* Potential lethal dose: *20–25 mg/kg*
Barbiturates: **1. Short-acting** **2. Long-acting**	Respiratory depression. Antidote/treatment: *None.* 1. Short-acting: Potential lethal dose: *>3 g* 2. Long-acting: Potential lethal dose: *>6 g*
Benzodiazepine	Sedation, respiratory depression, hypotension, coma Antidote/treatment: *Flumazenil reverses effects (but it may induce W/D in the dependent)*
Carbon monoxide	Headaches, dizziness, weakness, N/V, diminished visual acuity, tachycardia, tachypnea, ataxia, seizures. Possible hemorrhages (cherry red spots on the skin), metabolic acidosis, coma, and death. Treatment: *Hyperbaric oxygen*
Cocaine	Peak toxicity 60–90 min. after use; systemic sympathomimesis & seizures, acidosis. Later cardiopulmonary depression, possible pulmonary edema. Treatment of acidosis, seizures, & HTN is imperative. Antidote/treatment: *Narcan (empirically)*
Non-benzo hypnotics	Delirium, extrapyramidal syndrome. Potential lethal dose: *Varies with tolerance*
Hydrocarbons	GI, reparatory, and CNS compromise Antidote/treatment: *None*
Opioids	Miosis, resp. depression, obtundation, pulmonary edema, delirium, death. Antidote/treatment: *Naloxone, nalmefene helpful.* Potential lethal dose: *Varies with tolerance*
Phencyclidine / ketamine	HTN, nystagmus, rhabdomyolysis Antidote/treatment: *None. Don't attempt forced diuresis in O/D w/ suspected rhabdomyolysis.*
Phenothiazines	Anticholinergism, extrapyramidal side effects, cardiac effects Antidote/treatment: *monitor for 48 hours for cardiac arrhythmia. Lidocaine cardiac arrhythmia, norepinephrine for hypotension, sodium bicarbonate for metabolic acidosis, and Dilantin for seizures.* Potential lethal dose: *150 mg/kg*
Salicylates	CNS, acidosis Antidote/treatment: *None* Potential lethal dose: *500 mg/kg*
Tricyclics	Cardiac effects, hypotension, anticholinergism Antidote/treatment: *None* Potential lethal dose: *35 mg/kg*
Hallucinogens	Ring-substituted amphetamines; LSD / mescaline may lead to rhabdomyolysis, hyperthermia, hyponatremia Antidote/treatment: *Reduce temperature, administer dantrolene*
Inhalants	Cardiotoxicity, arrhythmias Antidote/treatment: *Cardiac monitoring*