DSH PSYCHOTROPIC MEDICATION Operational Procedures

BENZODIAZEPINE PROTOCOL:

I. Indications:

A. DSM diagnosis of anxiety disorder, including panic disorder, generalized anxiety disorder, and social phobia, but excluding obsessive-compulsive disorder (OCD), acute stress disorder, or post-traumatic stress disorder (PTSD).

[NOTE: Benzodiazepines inhibit response prevention treatment in OCD, increase the rate of conversion of acute stress disorder to PTSD, and have been shown to not have an overall beneficial effect in PTSD. Also, simple phobias are typically treated with behavioral exposure therapies.]

B. DSM bipolar mood disorder, manic, hypomanic, or mixed phase as acute treatment to decrease psychomotor activation. Benzodiazepines have been demonstrated to reduce the need for antipsychotic medications during acute mania.

C. DSM diagnosis of mood or psychotic disorder associated with moderate to severe anxiety symptoms, catatonia, or acute psychomotor agitation.

Benzodiazepines are often used for acute control of anxiety symptoms, e.g., panic episodes, or psychomotor agitation, while the onset of action for antipsychotic, mood stabilizing, or antidepressant medications is awaited.

[NOTE: Prolonged treatment with benzodiazepines has been associated with increased mortality, including an approximate doubling of suicide risk in schizophrenia spectrum disorders.]

D. Alcohol or other sedative/hypnotic withdrawal states.

E. Interruption of seizures.

[NOTE: Clonazepam is indicated for ongoing anticonvulsant therapy but is typically reserved as an adjunctive anticonvulsant.]

F. Acute or subacute muscle spasm, including indication for treatment of tardive akathisia or tardive dystonias.

G. Used for conscious sedation (e.g., for procedures or for hypnotic interview in conversion disorder).

H. Insomnia, especially transient.

[NOTE: Chronic insomnia is better treated by behavioral techniques or with a selective sedative, as nearly complete tolerance develops to the hypnotic effects of most benzodiazepines given at a fixed dose over about 30 days.]

I. Restless leg syndrome.

** In all cases wherein routinely prescribed benzodiazepines are continued for more than 90 days, a Medication Review Committee (MRC) or Therapeutic Review Committee (TRC) review or consultation is required.

**Use of 15 or more PRN or STAT episodes of benzodiazepine in 30 days also requires MRC or TRC review or consultation.

II. Contraindications:

A. History of sensitivity to a proposed benzodiazepine or any component of its formulation.

B. Currently impaired consciousness or coma.

C. Always allow at least two hours between administration of IM Olanzapine and IM Lorazepam due to risk of severe decline in blood pressure and potential respiratory arrest.

III. Precautions (documented risk/benefit analysis supports use):

A. Presence of a DSM substance use disorder.

B. Concurrent prescription or illicit use of medications which suppress respiratory drive (e.g., alcohol, barbiturates, or opioids).

IMPORTANTLY, the interaction may be synergistic and fatal.

Please see Centers for Disease Control (CDC) opioid prescribing guidelines: http://www.cdc.gov/DrugOverdose/Prescribing/Guideline.html

C. Concurrent prescription of medications likely to worsen confusion, memory impairment, or ataxia (e.g., carbamazepine, oxcarbazepine, valproic acid, divalproex, topiramate, phenobarbital, phenytoin, tiagabine, gabapentin, pregabalin, sedating antihistamines, sedating antidepressants, and sedating antipsychotics).

D. Pregnancy.

1. Diazepam has been associated with cleft palate in some, but not all, studies.

2. Clonazepam has not been found to show teratogenic effects at rates above the general population.

E. Breast feeding.

1. All benzodiazepines are secreted in breast milk at concentrations sufficient to affect the infant.
2. Benzodiazepines undergoing phase I hepatic metabolism may accumulate in neonates (e.g., diazepam, chlordiazepoxide, flurazepam, etc.)

F. Neurological conditions characterized by weakness or ataxia.

G. COPD, especially if severe, or sleep apnea.

H. Dementias and amnestic disorders.

I. Borderline personality disorder or impulse control disorders.

J. Benzodiazepines may worsen impulsive behavior across a variety of disorders, including antisocial personality disorder.

K. Positive history of suicide attempts.

L. First week of clozapine treatment is associated with rare severe orthostatic hypotension leading to respiratory arrest.

IV. Pretreatment screens:

A. Informed consent or alternate legal authorization is present.

B. Pretreatment workup includes:

1. Assessment of alertness.

2. Pulmonary examination for COPD.

C. Monthly monitoring includes:

1. Assessment of alertness

2. Assessment of immediate and recent recall.

3. Examination for ataxia.

4. Examination for lateral nystagmus.

V. Dosing:

In all cases, the dose of benzodiazepine should be initiated at the lowest expected effective dose. Maximum daily doses (DSH Psychotropic Medication Policy are presented below.

Common Benzodiazepines:

GENERIC NAME	PROPRIETARY NAME	UPPER LIMITS** (mg/d)
Alprazolam	Xanax	6
Clonazepam	Klonopin	20
Clorazepate	Tranxene	60
Chlordiazepoxide	Librium	100
Diazepam	Valium	60
Flurazepam	Dalmane	30
Lorazepam	Ativan	10
Oxazepam	Serax	120
Temazepam	Restoril	30

**Uses of higher doses for > 15 days requires TRC review or consultation.

VI. Dosing accounts for drug-drug interactions:

A. Concurrent use of medications which have additive GABAergic properties may require dose reductions of 30-50% (e.g., valproic acid, divalproex, gabapentin, tiagabine, pregabalin, etc.)

Some drugs may exhibit a bi-phasic response in which the concurrent drug increases sedation or ataxia but then may diminish the effect of the benzodiazepine via metabolic induction (e.g., carbamazepine and barbiturates).

B. Broad inhibitors of hepatic metabolism will increase benzodiazepine concentrations

But because benzodiazepines are usually metabolized by both microsomal and non-microsomal pathways, the effects of inhibiting selected enzymes is correspondingly limited.

C. Lorazepam, oxazepam, and temazepam are relatively independent of hepatic metabolic inducers and inhibitors, requiring only conjugation (phase II metabolism) by the liver.

VII. Dosing accounts for changes in the elderly:

Elderly individuals should generally have both initial and maintenance dosing decreased by 30% to 50% compared to younger individuals.

Benzodiazepines with longer half-lives (e.g., diazepam, chlordiazepoxide, and clonazepam) may tend to accumulate in elderly individuals due to slower metabolism.

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