DSH PSYCHOTROPIC MEDICATION Operational Procedures

MEDICATION TERMINOLOGY:

The terminology to be followed in the DSH Psychotropic Medication Policy is listed below:

I. PSYCHOTROPIC MEDICATIONS

The term Psychotropic Medications refers to the broad, generic designation for the group of drugs employed in treating signs and symptoms of mental disorder. This term is also applied to anticholinergic medications used to treat neurological adverse effects of antipsychotic medications (e.g., trihexyphenidyl and benztropine). [Please see Chapter 7 regarding polypharmacy.]

II. ANTIPSYCHOTIC MEDICATIONS

Antipsychotic drugs are employed in the treatment of major mental disorders, namely schizophrenia spectrum disorders and other mental disorders with psychotic signs and symptoms. These medications also have been shown to decrease psychomotor agitation, impulsiveness, and violent behavior in selected personality disorders, neurological conditions involving brain injury or degeneration, mood disorders, and selected developmental disorders. Several of these medications also have demonstrated mood stabilizing effects or adjunctive effects in the context of depression treatment. The most commonly used antipsychotic agents are the second-generation (atypical) antipsychotics.

First-generation antipsychotics include the phenothiazine group with its aliphatic, piperidine, and piperazine subclasses, the thioxanthenes, the butyrophenones, some dibenzoxazepines, the dihydroindolones and their derivatives, the diphenylbutylpiperidines, the benzisoxazoles, dibenzodiazepines, dibenzothiazepines and thienobenzodiazepines. At present, the second-generation antipsychotics approved in the U.S. include aripiprazole, asenapine, brexpiprazole, cariprazine, clozapine, iloperidone, lumateperone, lurasidone, olanzapine, paliperidone, quetiapine, risperidone, and ziprasidone. Pimavanserin has been approved for treatment of psychotic symptoms in the context of Parkinson's disease.

III. MOOD STABILIZING MEDICATIONS

A. Lithium is a cationic salt useful for the management of acute manic psychosis and certain schizoaffective conditions and as a prophylactic agent in selected bipolar or unipolar depressions and mania. Lithium also has been shown to decrease suicide risk, specifically a decline of about 2.6-fold compared to other mood stabilizing medications. Lithium should not generally be prescribed to women in the first six weeks of pregnancy because of cardiac teratogenicity to the fetus. The risk of Ebstein's anomaly is increased from about 1 per 20,000 live births to about 1 per 2,000 live births. Lithium may be a desirable mood stabilizer during the second and third trimesters, as untreated bipolar mood disorder during pregnancy demonstrates a relapse rate of circa 70%.

B. Anticonvulsant/Antiepileptic medications. [NOTE: Prescription for pregnant women must balance the risk of untreated seizures or mood disorder with the

risk to the fetus. Anticonvulsants may cause decreased fetal viability (fetal loss and infant mortality), decreased fetal growth, congenital malformations (2 – 2.4% overall), neonatal complications, fetal maldevelopment such as neural tube defects (1 – 2 % with VPA), or infant developmental delay or autistic spectrum disorder (1 – 6%).]

C. Carbamazepine is a tricyclic anticonvulsant drug sometimes used in the treatment of certain refractory affective psychoses, especially lithium-resistant bipolar illness.

D. Clonazepam is a benzodiazepine that is reported to have antimanic and antianxiety properties. This medication is sometimes used as adjunctive treatment for acute manic episodes. However, it has not been shown to exert any prophylactic effect on mood cycling in bipolar mood disorder. [NOTE: In the tables of daily maximum doses, clonazepam is classed with the other benzodiazepines.]

E. Lamotrigine is an anticonvulsant recognized to be ineffective in treating acute hypomania or mania. However, it may have prophylactic properties with respect to mood cycling. Lamotrigine may also have antidepressant properties and utility in treating bipolar mood disorder, depressed phase. This may be especially important, as several studies have indicated that antidepressant medications offer little benefit in the depressed phase and may promote transition into mania or increased mood cycling.

F. Oxcarbazepine is an anticonvulsant that is similar in structure to carbamazepine, except that it lacks an epoxide bond at the 10/11 carbons. This difference leads oxcarbazepine to have fewer liver induction and bone marrow suppression problems associated with carbamazepine. Efficacy in treating mood disorders has not been supported in controlled trials.

G. Topiramate is an anticonvulsant that has gained some use for mood stabilization and weight loss. Efficacy in treating mood disorders has not been supported in controlled trials. It may, however, decrease mood lability and impulsivity in selected patients.

H. Valproic acid and divalproex sodium are anticonvulsants used as primary or adjunctive treatment of certain symptoms of affective disorders, particularly manic symptoms of bipolar or schizoaffective disorder. They have been found to be more effective than lithium in treating rapid cycling bipolar mood disorder and mixed mood states. They also have been demonstrated to decrease violent behavior during the initial few weeks of the treatment of psychosis. Regardless of the preparation taken, the active drug in plasma is valproic acid.

I. Zonisamide is an anticonvulsant, which has recently shown some anecdotal promise as a mood stabilizer. Limited controlled studies have, however, shown no efficacy for mania, bipolar depression, or mixed states. Like topiramate, zonisamide tends to promote weight loss.

IV. ANTIDEPRESSANT MEDICATIONS

The term antidepressant medication is used for those psychotropic medications whose major use is for the alleviation of depression. This group of drugs includes the selective serotonin reuptake inhibitors (SSRIs), norepinephrine serotonin reuptake inhibitors (NSRIs), bupropion, mirtazapine, tricyclic antidepressants (TCAs), heterocyclic antidepressants, and monoamine oxidase inhibitors (MAOIs*).*

IMPORTANTLY, bupropion is prone to diversion and abuse in forensic settings because when injected or insuflated, it replicates the effects of amphetamines.

Ketamine intravenous infusion has become popular for rapid, albeit transient, reversal of depression and suicidality. Treatment is limited to specialized clinics.

Similarly, esketamine is indicated for treatment of depression via nasal spray. Certification by the U.S. Food and Drug Administration and observation of the patient for a minimum of two hours post treatment is required.

Brexanolone via intravenous infusion postpartum for prevention of postpartum depression also has been approved.

V. ANXIOLYTIC MEDICATIONS

The designation “anxiolytic drug” is used for those psychotropic medications whose primary purpose is the reduction or control of anxiety and agitation. This class includes some benzodiazepines, antihistamines, and, rarely, certain barbiturates.

MAO inhibitors, tricyclic and heterocyclic antidepressants, venlafaxine, duloxetine, and higher potency benzodiazepines may be used for panic disorder. Obsessive-compulsive disorder has been shown to respond to SSRIs and clomipramine. Social phobia has been shown to respond to SSRIs and MAOIs, while performance anxiety can often be controlled with beta-adrenergic antagonists, e.g. propranolol or benzodiazepines e.g. Clonazepam (Klonopin).

Some anticonvulsants, which increase gamma-amino butyric acid (GABA) activity, have been shown to reduce anxiety (e.g., gabapentin and tiagabine) though the anxiolytic effect of these medications appears to be modest.

Buspirone is an azopirone anti-anxiety agent which is indicated for the treatment of generalized anxiety disorder and may be used as an adjunctive agent with antidepressants in the treatment of mixed anxiety and depression. Buspirone is ineffective in treating panic disorder. IMPORTANTLY, buspirone is prone to diversion and abuse in forensic settings.

The alpha receptor antagonist antihypertensive, prazosin, has been shown to specifically suppress nightmares in PTSD in some, but not all, studies.

NOTE: Benzodiazepines may approximately double the risk of acute stress disorder progressing to post-traumatic stress disorder (PTSD).

VI. HYPNOTIC AGENTS

The term hypnotic agent refers to the class of psychotropic drugs whose primary action is sedation of the central nervous system resulting in relaxation or sleep. This class historically includes certain benzodiazepines, the barbiturates, paraldehyde (no longer manufactured) and chloral hydrate (no longer manufactured). More recently, selective hypnotic medications have become available, e.g. zaleplon, eszopiclone, and zolpidem. At standard doses, these latter medications do not produce complete tolerance to their sedative effects. Ramelteon and tasimelteon, which interact with the melatonin receptors, also have been introduced as hypnotics or sleep phase modulators. These medications do not produce tolerance or withdrawal and do not appear to possess any abuse potential. The orexin receptor antagonists, lemborexant and suvorexant, have been introduced and decrease the activity of the reticular activating system via inhibiting signal transduction at orexin-1 and orexin-2 G-protein-linked receptors. Suvorexant does not appear to have any abuse potential and maintains normal sleep architecture.

VII. STIMULANTS

This class of psychotropic medications is used for the stimulation of the central nervous system and is prescribed for attention deficit hyperactivity disorder (ADHD), narcolepsy, and as an adjunctive medication for anergia in depressed elderly or AIDS patients. This class of compounds includes amphetamines, methylphenidate, and chemically related compounds which promote brain dopamine activity.

Recently, atomoxetine (a noradrenergic reuptake inhibitor) and modafinil (a direct agonist at the tuberomammillary nucleus) have been added for ADHD and narcolepsy, respectively. Preliminary data suggest that judicious use of stimulants may decrease impulsivity in schizophrenia spectrum disordered patients whose psychosis has been controlled.

VIII. ANTICONVULSANTS

This class of psychotropic medications has the primary action of controlling a seizure disorder. Some of these medications exhibit both anti-aggressive and mood stabilizing properties as well. [Please see Mood Stabilizers section above, including increased risk during pregnancy with use as described above.]

IX. ANTIPARKINSON AGENTS

The broad, generic designation of antiparkinson medications is for the class of medications used to treat the neurological side effects of the neuroleptic medications, including pseudo-parkinsonism, akathisia, and dystonia.

Anticholinergic members of this group are included by convention as psychotropic medications, although they are used to treat medication side effects rather than the signs and symptoms of mental disorder. While somewhat effective in treating acute neurological syndromes, it is important to note that anticholinergic medications tend to worsen tardive dyskinesia, with the exception of “rabbit syndrome”.

Clonidine may be effective in treating movement disorders. Levodopa and other dopamine agonists (e.g., bromocriptine) are used to treat Parkinson's disease but are only rarely used to treat neuroleptic-induced syndromes. They are not classified as psychotropic medications.

NOTE: Amantadine offers an alternative for treating acute EPS that does not impose anticholinergic adverse effects.

X. COGNITIVE ENHANCERS

Cognitive enhancers are those medications used to improve memory and mentation in dementing illnesses. At present, medications in this category include cholinesterase inhibitors (e.g., donepezil, rivastigmine, and galantamine) and a single weak N-methyl D-aspartate (NMDA) receptor antagonist (memantine).

XI. OTHER

A. Beta-blockers are certain beta-adrenergic blocking agents that are occasionally used empirically in treating refractory psychotic states. Certain beta-blockers (particularly propranolol) have also been determined to be efficacious in treating extra-pyramidal reactions, especially akathisia.

B. Clonidine and guanfacine are antihypertensive medications that have been used empirically in the treatment of Tourette's Syndrome, Attention Deficit Hyperactivity Disorder, drug withdrawal syndromes, and movement disorders. Clonidine and guanfacine have also been used to reduce the frequency of aggression in some impulse control disorders

Reference:

https://www.nimh.nih.gov/Health.Topics/Mental-Health-Medications