DSH PSYCHOTROPIC MEDICATION Operational Procedures

TREATMENT DECISIONS AND ALGORITHMS

I. Authority for Medication Decisions

A. The attending physician or nurse practitioner within the scope of privileges defined by the Medical Staff pursuant to the Medical Staff By- Laws, has the authority and responsibility for making decisions about medication, route and schedule of administration, dosage, and duration, as well as integration with the overall treatment plan. The following policies and information are for the purpose of advising physicians and nurse practitioners in making decisions about medication treatment. Medication Planning The prescribing physician shall develop a psychotropic medication plan with the treated individual as follows: The patient, to the greatest extent possible, shall participate in developing her or his treatment plan, including the medication treatment. Histories elicited from treated individuals, relatives, databases, and former providers of care frequently prove to be valuable guides in medication selection and application.

B. Treated individuals shall be informed to the fullest practicable extent of the anticipated beneficial outcomes, possible expected immediate and/or long term adverse effects of medications as well as alternative therapies and medications.

C. Patients shall also be advised of the risks of no treatment. The ethical, legal, and civil rights of the treated individual must be kept in mind during all treatment decisions.

II. Risks of Anticholinergic Medications

Physicians and nurse practitioners must recognize the hazards of continuous use of anti-Parkinson (anticholinergic) medications. There is evidence that these agents impair memory and may cause toxic psychosis. They may also have a strong abuse potential, particularly trihexyphenidyl (Artane®) and benztropine (Cogentin®). Anticholinergic medications also may cause blurred near vision, xerostomia, increased dental caries, constipation, and urinary retention. Circa 70% of anticholinergic prescriptions for treatment of acute neurological symptoms can be tapered gradually and discontinued after 30 to 90 days without recurrence of target symptoms.

III. Akathisia

Akathisia, both subjective and objective, should be recognized as a potential cause of agitation and violence in individuals treated with neuroleptics. Consideration should be given to lowering the dose of neuroleptic or adding mirtazapine, a beta- adrenergic antagonist (e.g., propranolol), a benzodiazepine (e.g., clonazepam), or an anti-Parkinson medication (usually less effective) rather than increasing the dose of the neuroleptic.

Consideration also should be given to changing the antipsychotic medication to one less prone to causing akathisia. Additionally, dosing such that peak plasma concentrations occur during hours of sleep may reduce the risk of akathisia, as well as other forms of neurological symptoms.

IV. Route of Administration

Physicians and nurse practitioners should also keep in mind that orders which permit oral or intramuscular routes of administration should reflect the fact that the same dose of antipsychotic given intramuscularly may be up to 2.5 times more potent than when given by the oral route. This applies to short-acting injectable second-generation antipsychotics, as well as the older first-generation antipsychotics.

The U.S. Food and Drug Administration (FDA) has warned against excessive injections of ziprasidone (Geodon®), especially in combination with oral administration due to concerns over potential QT interval prolongation. Repeated injections of olanzapine have been reported to be associated with orthostatic hypotension. This risk is increased by co-administration of a benzodiazepine.

Orally administered olanzapine does not typically work well as a treatment for acute psychomotor agitation, as both tablet and orally dissolving formulations require 8 to 9 hours to reach peak plasma concentrations.

Additionally, the FDA has warned that droperidol may prolong QT interval, resulting in torsade de pointes. Review of available literature indicates that cases of torsade de pointes have occurred in the context of intravenous administration only.

Intravenous administration of haloperidol also has resulted in torsade de pointes, but haloperidol has not received a similar warning.

Further, concomitant administration of intramuscular olanzapine and parenteral benzodiazepine is not recommended due to the potential for excessive sedation and cardiorespiratory depression.

V. Risk of Weight Gain/Metabolic Syndrome

It should be noted that second-generation antipsychotics, especially clozapine and olanzapine, may promote weight gain, hyperlipidemia, hypertension, and insulin resistance, collectively termed metabolic syndrome. In rare cases, acute severe hyperglycemia and diabetic ketoacidosis have been reported. [Please see individual DSH medication protocols regarding relevant laboratory monitoring.]

The FDA also issued a warning for all antipsychotics regarding increased risk of cerebrovascular accident and mortality in the context of elderly demented patients. Some data suggest that such risk is especially relevant for patients suffering from vascular dementia. Whether similar risk applies to other types of dementia is less clear. Other commonly used medications (e.g., valproic acid) have also been implicated but have not yet received official warnings.

VI. Antidepressants and Suicide/Pregnancy Risk

It is worth noting that recent data have caused the FDA to issue a warning that selective serotonin reuptake inhibitor antidepressants (SSRIs) may induce suicidal ideation and behavior in children, adolescents, and young adults early in the course of treatment.

Similar concerns with other antidepressants and in older adults may apply, though available data are less clear in these contexts. Additionally, it should be noted that antidepressants have been less robustly effective in treating depression in children and adolescents.

Moreover, the FDA has found that selective serotonin reuptake inhibitor antidepressants may slow fetal growth, rarely cause postnatal persisting pulmonary hypertension, and cause withdrawal symptoms in neonates. Paroxetine (Paxil®) has been associated with transient neonatal seizures, as well as birth defects in one per twenty-five neonates exposed during the first trimester. Approximately 50% of the malformations involved the cardiovascular system, with ventricular septal defect (VSD) being the most common birth defect. Later meta-analyses did not identify an elevated teratogenic risk for paroxetine (this sentence need to be italicized or bolded or underlined for emphasis against the previous 2 sentences). Finally, SSRI exposure during middle-age may increase the risk of osteoporosis/osteopenia later in life.

VII. Medication Trials

Antipsychotic, antidepressant, and mood stabilizer trials should generally be continued for a minimum of six weeks at standard therapeutic doses before being deemed to have failed due to lack of efficacy. Shorter trials at lower doses may be deemed failures if the medication in question is not tolerated. In selected cases, use of higher than state policy maximum doses with Therapeutic Review Committee (TRC) or Medication Review Committee (MRC) approval, use of rational drug combinations or polypharmacy with TRC or MRC approval, and/or use of adjunctive medications for an additional period of 6 to 12 weeks may be appropriate before finding the given therapeutic regimen to have failed.

In general, the trial of a chosen medication should be initiated per the relevant protocol and then should be titrated to the minimum response threshold, where possible as guided by measurement of plasma concentrations. If the medication is tolerated at the minimum response threshold but the desired clinical response has not occurred, then the medication should be titrated at a minimum rate circa every two weeks until one of four endpoints is reached, i.e., The desired clinical response occurs, intolerable unmanageable adverse effects are encountered, the point of futility for the chosen drug is reached, or the maximum permitted dose by law or regulation is reached. For antipsychotics and mood stabilizers, please see the appendix chapter of these operational procedures which addresses optimal plasma concentration ranges.

If a chosen course of treatment has not been able to demonstrate adequate efficacy in 6 months, however, alternative courses of treatment should be pursued. In particular, expensive high-dose, combination, polypharmacy, and adjunctive treatments which do not produce the desired clinical improvement within 6 months should be abandoned in favor of alternative treatments. If no treatment options appear likely to be adequately effective, the safest and most cost-effective option should be chosen. For medications having protocols within these policies, the cited protocols are to be followed.

VIII. Involuntary Medications

If a patient does not have an involuntary medication order (IMO), refuses to provide consent to treatment, and is deemed by the prescribing physician to lack decision making capacity, the prescribing physician may nevertheless prescribe a standing oral medication

to be offered to the patient (which the patient may refuse) if the potential benefits of treatment are deemed to outweigh the risks.

The risks of untreated psychosis are many and include, but are not limited to an increased risk for self-harm, suicide, psychosis-driven violence, victimization, accidents, premature morbidity and mortality, and there is evidence that extended periods of relapse may be associated with progressive brain tissue loss supporting the use of antipsychotic medication to help prevent psychosis relapse

If the offered treatment is refused, the patient should be evaluated for an involuntary medication order (IMO). Further, if the patient's mental state deteriorates such that they pose a risk of physical harm, then emergency medications should be involuntarily administered and an IMO should be pursued per California Welfare and Institutions Code, Section 5008(m)."

Reference:

Jasovic-Gasic, M., Dunjic-Kostic, B., Pantovic, M., Cvetic, T., Maric, N. P. & Jovanovic, A. 2013. Algorithms in psychiatry: state of the art. *Psychiatr Danub,* 25**,** 280-3.

Andreasen NC, Liu D, Ziebell S, Vora A, Ho BC. Relapse duration, treatment intensity, and brain tissue loss in schizophrenia: a prospective longitudinal MRI study. Am J Psychiatry. 2013 Jun;170(6):609-15. doi: 10.1176/appi.ajp.2013.12050674. Erratum in: Am J Psychiatry. 2013 Jun 1;170(6):689.

IX.