Conditions Related to Psychoactive Medications

Syndrome/Condition	Causative Agent	Symptoms	Treatment/Medications
Neuroleptic Malignant Syndrome (NMS)	Antipsychotic medications; increased risk with higher doses. Dehydration, poor nutrition, & comorbidity of other medical illnesses may increase risk for NMS.	Muscle rigidity, high fever, autonomic instability, diaphoresis, pallor, delirium, increases in muscle enzymes (creatine phosphokinase) & leukocytosis (increased leukocytes). May fluctuate from agitation to stupor; possibly mute. Can be FATAL.	Stop the offending antipsychotic. May use bromocriptine or dantrolene (muscle relaxant). Monitor vitals, I & O, & LOC. Treat hyperthermia.
Extrapyramidal Symptoms (EPS)	Antipsychotic medications; primarily conventional antipsychotics.	Dystonia (oculogyric crisis, torticollis, & opisthotonus), pseudoparkinsonism (trembling, shuffling gait, drooling, rigidity), & akathisia (uncontrollable restless and fidgeting). These reactions are **reversible** with appropriate treatment. .	Reduce or stop offending medication. May use diphenhydramine (antihistamine) or benztropine (anticholinergic).
Tardive Dyskinesia (TD)	Long term use of conventional antipsychotics.	Involuntary movements of tongue, facial & neck muscles, arms & legs. Facial involvement may include tongue thrusting, lip smacking, blinking, & facial grimacing. May cause difficulty swallowing. Arm and leg involvement may include choreiform movements. This condition is **irreversible** but it is possible to arrest the progress if drug reduced or discontinued.	No effective treatment at this time. Experimental use of levetiracetam (anticonvulsant) with some success reported in clinical trials with this medication. The AIMS tool used for evaluation (Abnormal Involuntary Movement Scale).
Serotonin Syndrome	One or more medications with serotonin-enhancing properties (example: using a MAOI with a SSRI at the same time or within too close a timeframe if given separately)	Agitation, diaphoresis, fever, tachycardia, hypotension, rigidity, hyperreflexia, & confusion. Later stages may include ventricular arrhythmias, DIC, rhabdomyolysis, metabolic acidosis, & renal failure. If untreated may lead to coma and may be FATAL.	Stop or reduce offending medication. May use cyproheptadine (histamine 1 receptor antagonist). Treat hyperthermia. Monitor vital, I & O,
Agranulocytosis	Primarily conventional antipsychotics with the exception of clozapine (atypical).	WBCs drop to an extremely low level. Symptoms include sore throat, fever, & malaise.	While on clozapine monitoring WBCs and neutrophil is essential. Clozapine protocol must be followed (refer to text).