Attention-Deficit/Hyperactivity Disorder (ADHD) Medication Side Effects & Monitoring/Management		
Class	**Side Effects**	**Monitoring/Management**
Stimulants • Methylphenidate • Dexmethylphenidate • Dextroamphetamine • Amphetamine • Dextroamphetamine/amphetamine • Lisdexamfetamine • Methamphetamine	• Appetite suppression (potentially increased for amphetamines) • Nausea/vomiting • Headache • Dizziness	• Administer with food • Monitor height and weight every 6 months • Use shorter-acting agent
	• Growth suppression in children	• Monitor height and weight at follow-up appointments • If at any point, patients who are not growing or gaining weight as expected may have to have their therapy interrupted
	• Cardiovascular risk	• Prior to initiating stimulant, assess medical history and family history of sudden death or ventricular arrhythmia; conduct a physical examination to assess for cardiac disease; patients should receive further evaluation if findings suggest cardiac disease, such as electrocardiogram (ECG) and echocardiogram • Promptly conduct cardiac evaluation in patients who develop exertional chest pain, unexplained syncope, or any other symptoms of cardiac disease during stimulant treatment • Baseline heart rate and blood pressure measurements • Blood pressure and heart rate monitored at follow-up appointments
	• Misuse and dependence	• Assess the risk of misuse prior to prescribing • Monitor for signs of misuse and dependence while on therapy
	• Irritability	• Decrease dose • Consider discontinuation of medications with evaluation for comorbidities
	• Sleep disturbances	• Late evening and nighttime doses should be avoided (unless drug is indicated to take in the evening) • Avoidance of nighttime stimuli • Use short-acting agents or change to atomoxetine • Consider addition of melatonin
	• Tic disorder	• Monitor for worsening of tics exacerbated by medication • Consider switching to non-stimulant therapy if conditions worsen
	• Hallucination and other psychotic symptoms	• Assess and evaluate for coexisting conditions prior to initiating therapy • Consider changing therapy if new psychiatric symptoms occur with initiation of treatment
	• Priapism	• May occur during or after discontinuation of therapy • If condition presents, medical treatment should be initiated immediately
	• Leukoderma • (Daytrana only)	• Discontinue patch if loss of skin pigmentation is reported

Attention-Deficit/Hyperactivity Disorder (ADHD) Medication Side Effects & Monitoring/Management		
Class	**Side Effects**	**Monitoring/Management**
Selective Norepinephrine Reuptake Inhibitors • Atomoxetine • Viloxazine	• Appetite suppression • Nausea/vomiting • Abdominal pain	• Titrate via recommended starting doses when new treatment is initiated • May give with food • Atomoxetine only- divide daily dosage into twice daily (BID) to help decrease side effects
	• Tachycardia • Hypertension	• Prior to initiating treatment, assess medical history and family history of sudden death or ventricular arrhythmia; conduct a physical exam to assess for cardiac disease; patients should receive further evaluation if findings suggest cardiac disease, such as ECG and echocardiogram • Promptly conduct cardiac evaluation in patients who develop exertional chest pain, unexplained syncope, or any other symptoms of cardiac disease during stimulant treatment • Baseline heart rate and blood pressure measurements • Blood pressure and heart rate monitored at follow-up appointments
	• Growth suppression in children	• Monitor height and weight at follow-up appointments • If at any point, patients who are not growing or gaining weight as expected may have to have their therapy interrupted
	• Psychotic or manic symptoms	• Treatment is emergent • Consider discontinuation of treatment if symptoms occur
	• Somnolence • Fatigue	• Administer dose at bedtime
	• Suicidal thoughts or behaviors • (Boxed Warning)	• Before therapy, evaluate for existing psychiatric conditions • Advise families and caregivers of the need for close observation and communication with the prescriber • Therapy change should be considered if new symptoms arise after drug is started
	• Priapism • (atomoxetine only)	• May occur during or after discontinuation of therapy • If condition presents, medical treatment should be initiated immediately
	• Urinary retention • (atomoxetine only)	• Use with caution when there is a history of urinary retention or bladder outlet obstruction
	• Hepatitis • (atomoxetine only- Boxed Warning)	• Rarely, associated • Monitor liver enzymes (upon signs/symptoms of liver dysfunction and for several weeks after discontinuation for liver dysfunction)

Attention-Deficit/Hyperactivity Disorder (ADHD) Medication Side Effects & Monitoring/Management		
Class	**Side Effects**	**Monitoring/Management**
Selective Alpha-2 Agonists • Clonidine • Guanfacine	• Somnolence • Fatigue • Dizziness	• Administer dose at bedtime
	• Hypotension • Bradycardia	• Prior to initiating stimulant, assess medical history and family history of sudden death or ventricular arrhythmia; conduct a physical exam to assess for cardiac disease; patients should receive further evaluation if findings suggest cardiac disease, such as ECG and echocardiogram • Promptly conduct cardiac evaluation in patients who develop exertional chest pain, unexplained syncope, or any other symptoms of cardiac disease during stimulant treatment • Baseline heart rate and blood pressure measurements • Blood pressure and heart rate monitored at follow-up appointments
	• Rebound hypertension (abrupt discontinuation)	• Medications should be tapered rather than suddenly discontinued
Off-Label Medications		
Bupropion	• Suicidal thoughts or behaviors • (Boxed Warning)	• Before therapy, evaluate for existing psychiatric conditions • Advise families and caregivers of the need for close observation and communication with the prescriber • Therapy change should be considered if new symptoms arise after drug is started
	• Seizures	• Contraindicated in patients with a history of seizures • Permanently discontinue if seizure occurs during therapy
	• Psychosis in patients with an underlying psychiatric illness.	• Symptoms may abate with dose reduction and/or withdrawal of treatment
	• Cardiovascular risk	• Prior to initiating treatment, assess medical history and family history of sudden death or ventricular arrhythmia; conduct a physical exam to assess for cardiac disease; patients should receive further evaluation if findings suggest cardiac disease, such as ECG and echocardiogram • Baseline heart rate and blood pressure measurements • Blood pressure and heart rate monitored at follow-up appointments
	• Abuse/misuse	• Monitor for signs of abuse and/or misuse while on therapy

Attention-Deficit/Hyperactivity Disorder (ADHD) Medication Side Effects & Monitoring/Management		
Class	**Side Effects**	**Monitoring/Management**
Off-Label Medications		
Modafinil	• Cardiovascular risk	• Prior to initiating treatment, assess medical history and family history of sudden death or ventricular arrhythmia; conduct a physical exam to assess for cardiac disease; patients should receive further evaluation if findings suggest cardiac disease, such as ECG and echocardiogram • Baseline heart rate and blood pressure measurements • Blood pressure and heart rate monitored at follow-up appointments
	• Psychotic or manic symptoms	• Treatment is emergent • Consider discontinuation of treatment if symptoms occur
	• Tic disorder	• Monitor for worsening of tics exacerbated by medication • Consider switching therapy if conditions worsen
	• Seizures	• Discontinue if seizure occurs during therapy
	• Psychosis	• Monitor for the occurrence of these symptoms especially at initiation and after dose increases • Use is not recommended in patients with preexisting psychotic disorders
	• Suicidal thoughts or behaviors	• Before therapy, evaluate for existing psychiatric conditions • Advise families and caregivers of the need for close observation and communication with the prescriber • Therapy change should be considered if new symptoms arise after drug is started

Attention-Deficit/Hyperactivity Disorder (ADHD) Medication Side Effects & Monitoring/Management		
Class	**Side Effects**	**Monitoring/Management**
Off-Label Medications		
Tricyclic Antidepressants • Desipramine • Nortriptyline • Imipramine	• Cardiovascular risk	• Prior to initiating treatment, assess medical history and family history of sudden death or ventricular arrhythmia; conduct a physical exam to assess for cardiac disease; patients should receive further evaluation if findings suggest cardiac disease, such as ECG and echocardiogram • Monitor for symptoms (syncope, SOB, dizziness, palpitations, etc.) once treatment is started. Obtain ECG or refer to cardiology if present
	• Suicidal thoughts or behaviors	• Before therapy, evaluate for existing psychiatric conditions • Advise families and caregivers of the need for close observation and communication with the prescriber • Therapy change should be considered if new symptoms arise after drug is started
	• Anticholinergic (blurred vision, constipation, dry mouth)	• Monitor therapy
	• Orthostatic hypotension	• Use with caution in patients at risk or those who cannot tolerate
	• Seizures	• Use with extreme caution in patients with a history of seizures • Permanently discontinue if seizure occurs during therapy
	• Overdose	• Can be fatal in as little as 10 times the daily dose. Toxicity related to QT prolongation, anticholinergic toxicity and seizures. Avoid in patients who appear to be at high risk of intentional overdose

References for Appendix 2.7: ADHD Medication Side Effects & Monitoring/Management

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