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SAFER PRESCRIBING OF STIMULANT AND NON-STIMULANT MEDICATION GUIDELINE

SCOPE: This Safer Prescribing of Stimulant and Non-Stimulant Medication Guideline is intended to offer stimulant and non-stimulant medication prescribing guidance for providers, clients and the interested general public to increase the effectiveness and safety of the use of these medications. It is not intended to be comprehensive in scope. These recommendations are not a substitute for clinical judgment. All decisions about care must carefully consider and incorporate the clinical characteristics and circumstances of each individual.

INTRODUCTION: In mental health, stimulant medications are most frequently prescribed for Attention Deficit Hyperactivity Disorder (ADHD). They are used in the treatment of refractory depression, narcolepsy and fatigue associated with certain medical disorders. For the purpose of this guideline, non-stimulant medications refer to all medications used for the treatment of ADHD, other than stimulants themselves. The non-stimulant medications described here are a diverse group. They have other uses in mental health and in general medical care. For example bupropion is used to treat depression and for smoking cessation. Clonidine can be used for the treatment of hypertension and is sometimes prescribed to help manage certain symptoms of opioid withdrawal. While ADHD is a neurodevelopmental disorder primarily diagnosed in childhood, the disorder can persist into adulthood and Appendix 1 contains information about the assessment of ADHD in adults.

One significant difference between stimulant medications and non-stimulant medications is the potential for their misuse. Though there is evidence that the use of stimulants for the treatment of ADHD does not increase the risk of development of a stimulant use disorder, this class of medications does have abuse potential. Non-stimulant medications are not believed to have any abuse potential. Stimulant and non-stimulant medications are most widely available in oral forms, as tablets, capsules or, occasionally as a liquid suspensions or transdermal patches.

The selection of a specific stimulant or non-stimulant medication, form of administration, dose and duration of treatment is a complex decision-making process involving multiple factors. These factors often include individualized treatment goals, client choice, history of past medication trials, family history, side effect profile, pregnancy status, and other factors.

STIMULANTS: Stimulants are the most effective medications for the treatment of ADHD. There are two main types of stimulants: methylphenidates and amphetamines. They work primarily by increasing the availability of dopamine and norepinephrine in neuronal synaptic clefts. Methylphenidate does so by inhibiting neurotransmitter reuptake, while amphetamines directly release neurotransmitters from neurons

into the synaptic cleft. They are considered equally efficacious, and individual patient characteristics might help guide choosing one over the other. Effects are generally seen within one hour with both immediate-release and controlled-release formulations. Some individuals take stimulants every day, whereas others take them only on days when symptom control is needed. The effective dose varies widely between individual agents. See Appendix 2 for dose equivalency information. Some insurance plans prefer one formulation over another. See Tables 1 and 2 below for additional information about stimulants.

Adverse effects are similar among methylphenidates and amphetamines. Common adverse effects include headache, dry mouth, decreased appetite, weight loss, insomnia, dysphoria and anxiety. Cardiovascular side effects, such as increased blood pressure and tachycardia may occur. Cardiovascular complications do not occur frequently, but may be more common in individuals with pre-existing structural heart disease. Stimulants can lower the seizure threshold. If adverse effects develop from one particular agent, it is reasonable to try another methylphenidate or amphetamine based agent.

Monitoring should include blood pressure, heart rate, and weight at initial evaluation and at least monthly until on a stable dose. After the dose is stabilized, vitals should be checked at a minimum every three months. Individuals should be screened for a history and family history of cardiovascular disease and a cardiology consult should be obtained if there is concern. Baseline ECG monitoring is not recommended outside of the context of an individual or family history suggestive of cardiac anatomic or conductive abnormalities.

Withdrawal symptoms are unlikely to occur after one stops taking a prescribed dose of a stimulant, although they may occur if an individual abuses stimulants. Withdrawal symptoms include hypersomnia, increased appetite, anxiety, irritability, fatigue, depression, panic and suicidal thoughts. Prescribers may consider tapering individuals off stimulants rather than stopping them suddenly, especially if they have been taking high doses.

Per California law, prescribers must consult the California prescription drug monitoring system, CURES 2.0, the first time they prescribe a stimulant and at least every six months thereafter if the stimulant remains a part of their treatment plan. Urine toxicology screens, controlled substance agreements, and careful monitoring of medications prescribed and filled might be helpful for certain individuals who are prescribed stimulants. See Appendix 3 for an example of a controlled substance agreement.

TABLE 1: METHYLPHENIDATES

Medication (Brand Name)	**Dosage Form(s) (mg)**	**Maximum Dose (mg/day)**	**Duration* (hours)**	**Comments**
Short Acting				
Dexmethylphenidate (Focalin)	Tab 2.5, 5, 10	20	3-6	High fat meal may delay peak by 1.5 hrs
Methylphenidate (Ritalin, Methylin Solution, Methylin Chewable Tab)	Tab 5, 10, 20 Chew Tab 2.5, 5, 10 Sol 5/5ml, 10/5ml	60	3-6	Take 30-45 mins before meal when possible; solution is grape flavored
Intermediate Acting				
Methylphenidate (Ritalin SR, Metadate ER, Methylin ER)	Tab 10, 20	60	3-8 (highly variable)	Take 30-45 mins before meal when possible **Do not crush or chew**

Long Acting				
Dexmethylphenidate (Focalin XR)	Cap 5, 10, 15, 20, 25, 30, 35, 40	30 (peds); 40 (adults)	9-12	Capsule is 50% IR and 50% DR beads. Mimics BID dosing. High fat meal may delay peak **OK to open capsule and sprinkle on food**
Methylphenidate (Ritalin LA)	Cap 10, 20, 30, 40	60	7-9	Capsule is 50% IR and 50% DR beads. Mimics BID dosing. High fat meal may delay peak **OK to open capsule and sprinkle on food**
Methylphenidate (Metadate CD)	Cap 10, 20, 30, 40, 50, 60	60	7-9	Capsule is 30% IR and 70% DR beads. Mimics BID dosing. High fat meal may delay early peak by 1 hour **OK to open capsule and sprinkle on food**
Methylphenidate (Aptensio XR)	Cap 10, 15, 20, 30, 40, 50, 60	60	12	Biphasic- peaks at 2 hours and again at 8 hours; 37% IR, 63%DR **OK to open capsule and sprinkle on food**
Methylphenidate (Cotempla XR ODT)	ODT Tab 8.6, 17.3, 25.9	51.8	12	Peaks at 5 hours. Dissolves in saliva. Keep in foil blister until use.
Methylphenidate (Quillivant XR)	Susp 25/5ml (60, 120, 150, 180 ml)	60	10-12	Suspension is 20% IR and 80% DR. Shake vigorously for >10 sec before administering; banana flavored
Methylphenidate (Quillichew ER)	Chew Tab 20, 30, 40mg	60	8-10	20 and 30mg tabs are scored; 40mg tab is not scored
Methylphenidate (Jornay PM)	Cap 20, 40, 60, 80	80	22-24	Dosed at bedtime; Onset of response is 8-10 hours after administration **OK to open capsule and sprinkle on food**
Methylphenidate (Concerta)	Tab 18, 27, 36, 54	<13 yrs: 54 13+ yrs: 72	10-12	Tablet is 22%IR and 78% CR; Tablet shell may appear in stool **Do not crush or chew**
Methylphenidate transdermal (Daytrana)	Transdermal patch 10, 15, 20, 30	30	10-12	Apply to hip 2 hours before effect is needed. Remove after 9 hours; absorption may continue for several hours after removal
Serdexmethylphenidate and dexmethylphenidate (Azstarys)	Cap 26.1/5.2, 39.2/7.8, 52.3/10.4	52.3/10.4	13	Capsule is 30% dexmethylphenidate and 70% serdexmethylphenidate **OK to open capsule and sprinkle on food**

* Duration is approximate and may vary among different individuals

TABLE 2: AMPHETAMINES

Medication (Brand Name)	**Dosage Form(s) (mg)**	**Maximum Dose (mg/day)**	**Duration* (hours)**	**Comments**

Short Acting				
Dextroamphetamine (Dexedrine, Zenzedi, Procentra Solution)	Tab 2.5, 5, 7.5, 10, 15, 20, 30 Sol 5/5 ml	40	2-6	None
Amphetamine (Evekeo, Evekeo ODT, Benzedrine)	Tab 5, 10	40	4-6	Contains d-amphetamine and l-amphetamine salts in a 1:1 ratio
Mixed amphetamines salts (Adderall)	Tab 5, 7.5, 10, 12.5, 15, 20, 30	40	5-8	Contains d-amphetamine and l-amphetamine salts in a 3:1 ratio
Intermediate Acting				
Dextroamphetamine (Dexedrine Spansules)	Cap 5, 10, 15	40	6-10 (highly variable)	Capsule is 50% IR and 50% DR beads **OK to open capsule and sprinkle on food**
Long Acting				
Amphetamine (Adzenys ER oral suspension)	Susp 1.25mg/mL	<13: 18.8mg 13+: 12.5mg	8-13	Shake bottle before administering dose; do not mix with food or other liquid before consuming; orange flavor
Amphetamines (Adzenys XR-ODT)	ODT Tab 3.1, 6.3, 9.4, 12.5, 15.7, 18.8	<13: 18.8mg; 13+: 12.5mg	8-13	Keep tab in blister pack
Amphetamine (Dyanavel XR suspension)	Susp 2.5mg/mL	20mg	18-13	Shake bottle before administering each dose; dispense with oral dosing syringe; bubblegum flavor
Dextroamphetamine (Xelstrym)	Transdermal patch 4.5, 9 13.5, 18	18	9	Apply to hip, upper arm, chest, upper back, or flank 2 hours before effect is needed. Remove after 9 hours. Rotate sites.
Mixed amphetamine salts (Adderall XR)	Cap: 5, 10, 15, 20, 25, 30	30	8-12	Contains d-amphetamine and l-amphetamine salts in a 3:1 ratio; Capsule is 50% IR and 50% DR beads. Mimics BID dosing. **OK to open capsule and sprinkle on food**
Mixed amphetamines (Mydayis)	Cap: 12.5, 25, 37.5, 50mg	13-17: 25mg 18+: 50mg	10-16	Contains d-amphetamine and l-amphetamine salts in a 3:1 ratio **OK to open capsule and sprinkle on food**
Lisdexamfetamine (Vyvanse Capsule, Vyvanse Chewable)	Cap 20, 30, 40, 50, 60, 70	70	8-13	Pure dextroamphetamine; Continuous-release capsule. High fat meal may delay peak by 1 hour **OK to open capsule and sprinkle on food**

* Duration is approximate and may vary among different individuals

NON-STIMULANTS: Non-stimulant medications may be used when stimulant medications are contraindicated, not tolerated, or when co-morbid conditions exist that warrant their use. Non-stimulant medications include selective norepinephrine reuptake inhibitors (atomoxetine and viloxazine), alpha-2 agonists (clonidine and guanfacine), and bupropion. Unlike stimulants, non-stimulant medications should be taken every day. Non-stimulants might be used in combination with stimulants in certain situations.

Some insurance plans prefer one type of non-stimulant medication over others. See Table 3 below for dosing information for non-stimulant medications.

TABLE 3: NON-STIMULANT MEDICATIONS

Generic Name	Dosage Form(s) (mg)	Dosing Information
Atomoxetine	Cap: 10, 18, 25, 40, 60, 80, 100	<70kg (154lbs): Initial dose 0.5mg/kg, max dose 1.4mg/kg
		70+kg: Initial dose 40mg, max dose 100mg
Bupropion IR	Tab: 75, 100	100-450mg/day given three times daily; Single doses >150mg can decrease seizure threshold
Bupropion SR	Tab: 100, 150, 200	150-400mg/day given twice daily
Bupropion XL	Tab: 150, 300, 450	150-450mg/day given once daily
Clonidine IR	Tab: 0.1, 0.2, 0.3	<45kg (99lbs): Initial dose 0.05mg daily, max dose 0.2mg/day (<40kg) or 0.3mg/day (>40kg)
		45kg+: Initial dose 0.1mg/day, max dose 0.4mg/day
Clonidine ER	Tab: 0.1	Initial dose 0.1mg/day, max dose 0.4mg/day
Guanfacine IR	Tab: 1, 2	<45kg (99lbs): Initial dose 0.5mg daily, max dose 2mg/day (<40kg) or 3mg/day (>40kg)
		45kg+: Initial dose 1mg/day, max dose 4mg/day
Guanfacine ER	Tab: 1, 2, 3, 4	Initial dose 1mg/day, max dose for age 6-12 of 4mg/day, max dose age 13+ of 7mg/day
Viloxazine ER	Cap: 100, 150, 200	Initial dose 100 mg/day (age 6-11), 200 mg/day (12+) Max dose 400 mg/day (age 6-17), 600 mg/day (18+)

Atomoxetine and viloxazine ER are FDA-approved non-stimulant medications for ADHD. They work by inhibiting the reuptake of norepinephrine. Selective norepinephrine reuptake inhibitors have lower efficacy compared to stimulants. There is no evidence that they have a better safety profile than stimulants. They should be used cautiously in clients with cardiovascular disease (including hypertension) or cerebrovascular disease. Common side effects include headache, nausea, decreased appetite, dry mouth, sweating, insomnia, drowsiness and erectile dysfunction.

Alpha-2 agonists include clonidine and guanfacine. Originally used for the treatment of hypertension, alpha-2 agonists are thought to regulate neurotransmitter activity in the prefrontal cortex by stimulating post-synaptic alpha-2 receptors. The extended release versions of these medications have FDA approval for the treatment of ADHD, but the immediate release formulations do not. Alpha-2 agonists are less efficacious than stimulants, but are useful treatment options for individuals with certain co-morbidities (e.g. anxiety disorders, PTSD etc.) and for those who cannot take stimulants. Side effects include drowsiness/sedation, headache, dizziness, bradycardia and hypotension.

Bupropion is an antidepressant medication. It is thought to inhibit the reuptake of norepinephrine and dopamine, which is why it can be used to treat ADHD. It can be useful for individuals suffering from both depressive disorders and ADHD. Bupropion can lower the seizure threshold and therefore is contraindicated in anyone who is prone to seizures, including individuals with a known seizure disorder, those with eating disorders or those withdrawing from alcohol or sedative-hypnotics. It can take anywhere from 4-12 weeks for full antidepressant effect. Common side effects include insomnia, anxiety, headache and increase in sweating.

CHILDREN AND ADOLESCENTS: Due to their efficacy and rapid response, stimulant medications are often used as first-line agents in treating children with ADHD. Amphetamines are FDA-approved for the treatment of ADHD in children ages three and above and methylphenidates are FDA-approved for children ages six and above.

The most common side effects with stimulant medications are appetite suppression and insomnia. Some literature have reported an average of 0.5 inch decrease in expected height, while other studies have not found significant differences with long-tern use of stimulant medications. Nevertheless, "medication holidays" on weekends and school breaks can be useful for patients who struggle with appropriate weight gain on stimulant medications. When timed well, the use of short-acting stimulant medications may also be helpful in minimizing appetite suppression during meals and be less likely to interfere with sleep. Short-acting stimulant medications can also be employed in situations where the patient only requires a few hours of effect, such as a half day of school, an afternoon of completing homework, an after-school program, or a weekend activity.

Stimulant medications should be used judiciously in patients with tic disorders, a seizure disorder, an anxiety disorder, and in patients with a genetic predisposition or history of psychosis. Stimulant medications should be avoided in patients with active psychosis or anorexia nervosa. Patients with a history of recent substance use should be followed closely if stimulant medications are considered, due to the risk of diversion, overuse, and dependence of these medications. In addition to the standard monitoring parameters listed in the above section, height should also be monitored in children on stimulants.

Non-stimulants such as guanfacine ER, clonidine ER and atomoxetine are FDA-approved for treatment of ADHD in children starting at six years old. Non-stimulant medications such as guanfacine IR, clonidine IR and buproprion are commonly used off-label for the treatment of ADHD. It is important to keep in mind that non-stimulant medications for ADHD must be taken daily to be effective, and may pose a challenge in children and teenagers with compliance issues.

OLDER ADULTS: Recent estimates suggest that the diagnosis of ADHD in childhood persists into adulthood with a mean rate of 40%. Most clinical studies however exclude this population. There are small naturalistic studies demonstrating efficacy and safety of stimulant and non-stimulant medications in this population. Prescribers should treat this population with special caution given the potentially higher risk of side effects, including cardiovascular events in the elderly treated with stimulants, as well as polypharmacy.

SUBSTANCE USE DISORDERS: ADHD and substance use disorders are highly comorbid for both genetic neurobiological as well as developmental psychosocial reasons. As such, a thorough substance use history is part of any evaluation for ADHD. There is some preliminary evidence that treating ADHD and co-occurring substance use disorders with either stimulants or non-stimulants can be effective, but there is no consensus on the best avenue for treatment at this time. Given the preliminary nature of many of these findings paired with the risks of prescribing stimulants with potential use disorder potential themselves, caution and an elevated degree of monitoring is advised. There are no clear guidelines about when it may be appropriate to use stimulants in individuals recovering from a substance use disorder, and as such stimulants should be avoided in individuals with active substance use disorders.

PREGNANCY AND LACTATION:
Stimulants, selective norepinephrine reuptake inhibitors, alpha-2 agonists and bupropion do not seem to be teratogenic, although they have not been well-studied in this population. The long-term effects on

neurodevelopment with exposure to these medications during gestation or via lactation are unknown. Because of this, for women with mild-to-moderate symptoms, prescribers should consider discontinuing stimulant treatment and switching to non-pharmacologic interventions (for example, CBT or exercise). For women with severe symptoms which may interfere with their daily functioning and potentially affect the pregnancy, other medication options may be considered (for example, bupropion).

TABLE 4: PREGNANCY AND LACTATION CONSIDERATIONS

Medication	**Pregnancy Considerations**	**Crosses Placenta?**	**Lactation Considerations**
Methylphenidates	May decrease placental perfusion and increase uterine contractions. Associations with preeclampsia have been observed. Methylphenidate in pregnancy has been associated with a small increase in risk of miscarriages and risk of malformations (primarily cardiac).	Unknown	Levels in milk are low and not detectable in infants. Large doses may interfere with milk production.
Amphetamines	May decrease placental perfusion and increase uterine contractions. Associations with preeclampsia, placental abruption and preterm birth have been observed. Reports of prematurity, low birth weight, withdrawal symptoms, and behavioral problems have been documented when fetuses were exposed to illicit amphetamines.	Yes	Not recommended for use during lactation due to high levels present in breast milk. Some evidence indicates that it does not affect nursing infants adversely. Large doses may interfere with milk production.
Atomoxetine	No associations with adverse pregnancy outcomes seen, but studies may be underpowered.	Unknown	No published information.
Bupropion	Consider use only if benefit outweighs fetal harm risk. Reports of congenital heart defects and spontaneous abortion have been documented in women using bupropion for depression or smoking cessation.	Yes	Doses up to 300mg lead to low levels in breastmilk and would not be expected to cause adverse effects in breastfed infants. Monitor breastfed infants for vomiting, diarrhea, jitteriness, or sedation. Consider measuring serum levels to rule out toxicity.
Clonidine	Due to blood pressure concerns, other agents are preferred for ADHD.	Yes	Not recommended for use during lactation especially for a newborn or preterm infant due to high serum levels found in breastfed infants, possible infant side effects and possible negative effects on lactation.
Guanfacine	Due to blood pressure concerns, other agents are preferred for ADHD.	Yes	No published information.

RENAL/HEPATIC IMPAIRMENT: Many stimulant products have not been studied in renal or hepatic impairment. Use caution if prescribing stimulants in this population. See Table 5 below for dosing recommendations in renal and hepatic impairment.

TABLE 5: DOSING RECOMMENDATIONS IN RENAL AND HEPATIC IMPAIRMENT

Medication	Renal Impairment	Hepatic Impairment
Amphetamines	GFR 15-30 ml/min: max dose 20mg (Adderall); 25mg (Mydayis); 50mg (Vyvanse) GFR <15 ml/min: max dose 30mg (Vyvanse); use not recommended (Adderall, Mydayis)	Not studied
Atomoxetine	No dose adjustment required	Child-Pugh B: Reduce dose to 50% of normal Child-Pugh C: Reduce dose to 25% of normal
Bupropion IR	GFR< 90 ml/min: Consider lower dose or giving less frequently	Child-Pugh A: Consider lower dose or giving less frequently Child-Pugh B/C: Max dose 75mg
Bupropion SR	GFR< 90 ml/min: Consider lower dose or giving less frequently	Child-Pugh A: Consider lower dose or giving less frequently Child-Pugh B/C: Max dose 100mg/day or 150mg every other day
Bupropion XL	GFR< 90 ml/min: Consider lower dose or giving less frequently	Child-Pugh A/B: Consider lower dose or giving less frequently Child-Pugh C: Max dose 150mg every other day
Clonidine IR/ER	Consider lower starting and maintenance dose	Not studied
Guanfacine IR/ER	Use lower end of dosing range	Use with caution
Methylphenidates	Not studied	Not studied
Viloxazine ER	GFR <30ml/min: max dose 200mg daily	Not studied

*Child-Pugh classifications are used to assess the severity and prognosis of chronic liver disease. Child-Pugh A is the least severe, Child-Pugh B is moderately severe and Child Pugh C is the most severe.

DRUG INTERACTIONS: When used together, bupropion and stimulants may have an additive effect on decreasing the seizure threshold. Additionally, bupropion can increase the serum levels of stimulants and atomoxetine by inhibition of the CYP2B6 enzyme. See Table 6 for additional information.

TABLE 6: DRUG INTERACTIONS

Medication	Interacting medication(s)	Interaction Description
AMP/MPH	Psychostimulants (ex: caffeine, modafinil)	Additive effects on blood pressure and heart rate
AMP/MPH	Antihypertensives (ex: HCTZ, lisinopril)	Stimulants may counteract antihypertensive effects
AMP/MPH/BUP/ ATX	Monoamine oxidase inhibitors (ex: phenelzine)	May increase blood pressure and lead to hypertensive crisis; avoid use within 14 days
AMP/MPH	Tricyclic antidepressants (ex: amitriptyline, doxepin)	Stimulants can increase serum levels of tricyclic antidepressants

AMP	PPIs, H2RAs, antacids (ex: omeprazole, ranitidine)	Medications that lower acid can increase the rate of absorption of AMP (peak effect may occur sooner)
AMP	Vitamin C	Vitamin C may reduce blood levels of AMP making it less effective

*MPH= methylphenidate; AMP= amphetamine; BUP= bupropion; ATX= atomoxetine; CLN= clonidine; GNF= guanfacine

APPENDIX 1: ASSESSMENT AND TREATMENT OF ADHD IN ADULTS

Recent studies estimate that about 40% of children diagnosed with ADHD have a persistent diagnosis into adulthood. The prevalence is estimated to be 2.5% in adults. ADHD in adults can be accompanied by serious impairment in multiple domains. In adult populations, these include: poor learning and limited educational achievement, poor job performance and job loss, interpersonal and marital problems, an increased rate of traffic accidents and violations. Co-existing psychiatric disorders are common. These include mood, anxiety, substance use, intermittent explosive and antisocial personality disorders.

Rates of ADHD in non-psychotic adult community mental health centers are believed to be 10% or higher, yet often these clients are not identified and offered appropriate treatment. Possible reasons for this under-diagnosis and under-treatment are numerous. One significant reason is inadequate awareness and training in the diagnosis and management of the disorder by providers in adult community mental health centers. Clinicians should seek additional training and self-study to remedy any gaps to providing adequate assessments and treatment of ADHD. Assessment and treatment of ADHD in community mental health centers is complicated by:

- Co-existing psychiatric disorders that may mimic or mask symptoms of ADHD
- Difficulty obtaining or corroborating a history of symptoms prior to the age of 12 years (required for the diagnosis)
- Inaccurate reporting of attention problems by clients
- Medical disorders that could affect the safety of ADHD medication therapies
- Co-occurring substance use disorders

Many adults were diagnosed with ADHD as children or adolescents. A new diagnosis in an adult should be based upon some core symptoms being present before age 12 and persisting into adulthood. Clients newly presenting for assessment and treatment of ADHD in adulthood may not have developed functional impairments until they graduate high school and encounter the challenges of college or entering the workforce. Individuals seeking stimulant medications for their non-specific benefits as “performance enhancers” do not meet the criteria for the diagnosis.

Symptoms of ADHD overlap with other co-occurring psychiatric disorders. These should be identified and treated before a diagnosis of ADHD is confirmed. There are no diagnostic tests. Rating scales are available and may be helpful. For adults these generally ask about the specific criteria for the disorder found in DSM5. Many are on-line free of charge. One example is available at:

https://add.org/wp-content/uploads/2015/03/adhd-questionnaire-ASRS111.pdf

Key points for the assessment and treatment of ADHD in adults:

- Symptoms of the disorder must be present before the age of 12 years but full criteria need not be met until later

- Functional impairments in at least two domains are required for the diagnosis but the impairments may start at any age
- Requesting stimulant medications as "performance enhancers" does not meet criteria for ADHD
- Other psychiatric diagnoses should be identified/treated before an ADHD diagnosis is confirmed
- Collateral reports can be helpful, especially to confirm symptoms before age 12 years
- Rating scales are available and may be helpful to make the diagnosis and monitor treatment
- Stimulants should be avoided in clients with active substance use disorders

APPENDIX 2: STIMULANT DOSE EQUIVALENCY*

Generic (Brand Name)	**Dose Equivalent (compared to MPH IR 10mg BID)**
Methylphenidates	
MPH IR (Ritalin, Methylin Solution, Methylin Chewable Tab)	10mg BID
D-MPH IR (Focalin)	5mg BID
MPH SR/ER (Ritalin SR, Metadate ER, Methylin ER)	20mg daily
MPH LA/CD (Ritalin LA/Metadate CD)	20mg daily
D-MPH ER (Focalin XR)	10mg daily
MPH OROS (Concerta)	36mg daily= 10mg MPH IR TID
MPH ER ODT (Cotempla XR ODT)	17.3mg daily
MPH ER (Quillivant XR)	20mg daily
MPH ER (Quillichew ER)	20mg daily
MPH transdermal (Daytrana)	20mg daily (2.2mg/hr)
MPH ER (Aptensio XR)	20mg daily
MPH DR/ER (Jornay PM)	40mg daily = MPH IR 8mg TID
Serdexmethylphenidate/D-MPH ER (Aztarys)	39.2 mg/7.8 mg daily
Amphetamines	
AMP IR (Evekeo, Evekeo ODT, Benzedrine)	5mg BID
D-AMP IR (Dexedrine, Zenzedi, Procentra Solution)	5mg BID
D-AMP ER (Dexedrine Spansules)	10mg daily
D-AMP transdermal (Xelstrym)	9mg daily (1mg/hr)
MAS IR (Adderall)	5mg BID
MAS ER (Adderall XR)	10mg daily
AMP ER ODT (Adzenys XR-ODT)	6.25mg daily
AMP ER (Adzenys ER, Dyanavel XR)	6.25mg
Lisdexamfetamine (Vyvanse Capsule, Vyvanse Chewable)	30mg daily
MAS pH-dependent ER (Myadis)	12.5mg daily = MAS ER 8mg, then 8 hrs later MAS IR 4mg

MPH= methylphenidate; D-MPH= dexmethylphenidate; IR= immediate release; SR= sustained release; ER= extended release; CD= controlled delivery; XR= extended release; OROS= osmotic controlled release oral delivery system; ODT= orally disintegrating tablet; AMP= amphetamine; D-AMP= dextroamphetamine; MAS= mixed amphetamine salts;
*Dose equivalency is approximate and may vary among individuals. Use caution when switching from one formulation to another.

APPENDIX 3: STIMULANT MEDICATION AGREEMENT

Purpose: To describe what I can expect from my provider and what my provider expects from me in order to be more safely prescribed a stimulant medication.

Potential Risks: These medications carry serious risks that include, but are not limited to:

- Stimulant use disorder
- Anxiety and panic attacks
- Insomnia or difficulty sleeping
- Increased blood pressure and heart rate
- Hallucinations and other psychotic symptoms

My Responsibilities:

- I agree to come to my regularly scheduled appointments
- I understand that if I run out of medications early for any reason, these may not be refilled early (*Examples: lost medications, stolen medications, taking more than prescribed*)
- I agree to store my medications in a safe place, away from children
- I agree to receive stimulant medications only from this clinic
- I will notify my provider immediately if I am prescribed any new medications or develop any new medical conditions. I understand that my prescriber has access to all pharmacy records and this may be regularly reviewed
- I understand that I may be required to do a drug test at any time
- I agree to allow all of my providers to communicate with each other

My Provider's Responsibilities:

- Assess my symptoms
- Create/monitor an appropriate treatment plan that is as safe as possible
- Give clear instructions on taking this medication
- Stop the medication if at some point the risks outweigh the benefits
- Offer additional clinician support, such as counseling or education, for treatment of my mental health symptoms, as applicable

I understand that if I do not follow this agreement, the stimulant medication may be stopped.

Client Signature: _____ Date_____

Provider Signature: _____ Date_____

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