ADULT ATTENTION DEFICIT/HYPERACTIVITY DISORDER (ADHD)

Federal Bureau of Prisons

Clinical Guidance

December 2021

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1. PURPOSE

The Federal Bureau of Prisons (BOP) Clinical Guidance for the Management of Adult Attention Deficit/Hyperactivity Disorder (ADHD) provides recommendations for the diagnosis and management of ADHD in adult patients in BOP custody.

2. OVERVIEW OF ADHD

ADHD in adults has been extensively studied for more than forty years and has particular relevance in the correctional setting. The current treatment approach for adults with ADHD calls for individualized care based on an understanding of the biological and psychological factors for each patient.

- Adult ADHD is categorized by symptoms of inattention, impulsiveness, restlessness, executive dysfunction, and emotional dysregulation leading to collective marked deficits in daily functioning. Symptoms of hyperactivity and impulsivity in the adult population are less obvious than in children, while symptoms of inattention are more prominent.
- ADHD-related impairments presenting from childhood—educational difficulties, self-esteem issues, significantly impaired family and peer relationships—may be underlying factors for behavioral problems in adults.
- Adults with ADHD have higher rates of occupational difficulties, criminal activity, substance use disorders, traffic accidents, and motor vehicle citations compared to adults without ADHD, thereby warranting adequate medical treatment and psychotherapy.

**Adult ADHD is often comorbid with numerous other psychiatric disorders**—mood disorders, anxiety disorders, substance use disorders, intermittent explosive disorder, and antisocial disorder. A significant relationship has been established between ADHD and comorbid psychiatric disorders. **An all-encompassing treatment regimen for mental health—utilizing pharmacologic treatment, cognitive behavioral therapy, and other appropriate methodologies—is essential in adult patients with ADHD.**

**Implications for Correctional Settings**

A review of research regarding ADHD in adult correctional settings shows the following:

- **Estimates of the overall prevalence of ADHD in adult correctional populations** range from approximately 10–50%, higher than the estimated range of 4.4–16.4% for adult ADHD in the general community.
- **Adult ADHD symptoms correlate strongly with several of the risk factors identified in a Risks-Needs-Receptivity model for offender assessment and rehabilitation**, including Antisocial Personality Pattern (impulsivity, adventurousness, restless aggression, and irritability), substance abuse, poor family relationships, and poor performance and low satisfaction in school and work.
- **ADHD is a statistically significant risk factor for crime and delinquency**. The risks for arrests, convictions, and incarceration are 200–300% higher for those with a history of childhood ADHD. Inmates with ADHD symptoms had significantly more total offenses, and more violent and theft crimes than inmates without ADHD.
- **The risk of recidivism is higher in those with ADHD**. Recidivist offenders with ADHD—compared to recidivists without ADHD were more likely to have had a violent index offense, are more likely to commit a violent re-offense, and are likely to re-offend sooner.
Research has shown that incarcerated adults with ADHD symptoms had a higher rate of aggressive incidents and these incidents were more severe than those who were [ADHD] symptom-free.

Research has shown that effective interventions—including pharmacologic treatment and psychotherapy—are warranted to improve overall functioning and to potentially combat criminal thinking and behaviors:

► Adult men with ADHD had a 32% reduction in criminality when they were taking medication to treat the disorder.

► Treatment may improve inmate-inmate and inmate-staff interactions, as well as reduce antisocial and disruptive criminal behaviors, thereby potentially decreasing time spent in prison and decreasing the likelihood to re-offend. Potential improvements in behavior and daily functioning will allow for patients and staff to approach psychiatric comorbidities more effectively, facilitate reintegration into the community, and improve overall safety within the correctional setting for inmates and staff.

3. ASSESSMENT OF ADHD SYMPTOMS

Despite the many advances in understanding the basic biology and psychology of adult ADHD, the management of this disorder depends on the careful assessment and clinical diagnosis by an advanced practice provider, a psychologist, or a physician. Assessment includes identification of symptoms and behaviors consistent with the DSM-5 Diagnostic Criteria for ADHD and evaluation of cognitive or functional impairment attributable to the disorder. As part of this process and to determine appropriate treatment, it is necessary to either rule out or identify other comorbid mental health disorders (see Table 2 – Differential Diagnosis of Adult ADHD).

The best approach for assessing an adult is likely a structured or semi-structured Diagnostic Clinical Interview to include a review of symptoms of childhood ADHD, combined with a dimensional rating scale. Several validated rating scales are available, including the Adult ADHD Self-Report Scale (ASRS) (see Appendix 1).

► The major components of the assessment process are discussed below. See Table 1 for a more comprehensive list.

GATHERING INFORMATION ABOUT CHILDHOOD HISTORY OF ADHD SYMPTOMS

Historical information may come from self-report, prior diagnostic evaluations, school reports, collateral information from parents or siblings, or the presentence investigation report.

► A history of childhood treatment with medications for ADHD is a reasonably reliable indicator of childhood ADHD. Self-report and other forms of reporting of childhood ADHD symptoms may be helpful, but are not considered to be essential elements of the evaluation.
Current functioning is the most critical component of the evaluation, especially when considering pharmacologic treatment with abuse potential (e.g., bupropion) in the correctional population. Functional impairment is a required diagnostic criterion. The assessment should document how the patient’s symptomatology is adversely affecting their daily function specifically making note of the associated negative effects on their job and educational programing.

- **Identification of symptoms and behaviors that are consistent with the DSM-5 diagnostic criteria for ADHD.** The clinical interview should focus on adult manifestations of ADHD:
  - **IMPULSIVITY:** Impulsivity as a manifestation of adult ADHD includes characteristics of excessive involvement in activities or speech with a high potential for consequences. Adults who lack impulsivity control often face more serious life-altering consequences than children with ADHD, including premature initiation or termination of relationships, quitting employment opportunities, engaging in risky activities, etc.
  - **INATTENTION:** Adults experiencing inattention have difficulty remaining focused on tasks, especially for long periods of time. Organizing activities, prioritizing tasks, managing time, remembering to follow through, and completing tasks are commonly very challenging for these patients.
  - **HYPERACTIVITY:** Adults with ADHD present with restlessness, verbosity, and constant activity, with a tendency to choose very active and dynamic jobs.

- **Symptoms that impair participation** in programming, educational activities, and work assignments may indicate undiagnosed ADHD, as does impulsive behavior that frequently results in disciplinary action.
  - **Observations and reports** from work supervisors, educators, programming staff, healthcare providers, and correctional officers further reinforce self-reported functional impairments.

- **Assessment of basic activities of daily living (ADLs) and instrumental activities of daily living (IADLs)** to evaluate overall dysfunction, cognitive impairment, and consequently the burden of disease. The ability for a patient to perform ADLs and IADLs depends on **COGNITIVE** (reasoning and planning), **MOTOR** (balance and dexterity), and **PERCEPTUAL** (sensory) abilities. Assessing the full range of a person’s abilities provides a thorough evaluation of an adult patient with ADHD, as discussed further below.
  - The distinction between a patient’s ability to complete the task at hand (**PHYSICAL ABILITY**) versus the ability to recognize that the task needs to be done without prompting (**COGNITIVE ABILITY**) aids in determining the level and severity of hyperactivity, impulsiveness, and inattention.
  - Throughout treatment for ADHD, re-evaluation of ADLs may include recognizing the specific cognitive, emotional, or behavioral factors that interfere with basic life skills. Consistently determining how these barriers may be overcome to enhance independence, as well as revisiting treatment regimens, ensures the individualization of care and optimal outcomes for inmates with ADHD.

- Neuropsychological testing may yield additional useful information about IQ, learning disabilities, and other co-occurring disorders; however, neuropsychological testing does not have a central role in diagnosing ADHD.
### Table 1. Assessment of Adult ADHD

<table>
<thead>
<tr>
<th>Assessments to Perform</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Assess current ADHD symptoms (in the last 6 months). Use rating scales with adult norms.</td>
<td>• Use Adult ADHD Self-Report Scale (ASRS-v1.1), available in Appendix 1.</td>
</tr>
<tr>
<td>Establish childhood history of ADHD, if applicable</td>
<td>• Include age of diagnosis, symptoms, and associated treatment approaches (with both positive and negative results).</td>
</tr>
<tr>
<td>Assess functional and cognitive impairment: within unit, at work, during educational programming, and in relationships with others.</td>
<td>• Evaluate ADLs and IADLs and symptoms and behaviors of ADHD as related to DSM-5 Diagnostic Criteria.</td>
</tr>
<tr>
<td>Obtain developmental history</td>
<td>• Include pertinent information related to prenatal development, childhood, and adolescence.</td>
</tr>
</tbody>
</table>
| Obtain patient’s psychiatric history | • Rule out other psychiatric disorders.  
OR  
• Establish comorbid diagnoses such as learning disabilities, mood/anxiety disorders, personality disorders, substance use disorder. |
| Obtain family psychiatric history | • Focus specifically on learning difficulties, attention/behavior problems, ADHD, and tic disorders.  
• Inquire about all first-degree relatives (parents, siblings, & children, if applicable). |
| Physical exam | • Rule out medical causes of symptoms such as serious head injury, seizure disorder, heart problems, or thyroid problems.  
• Assess contraindications to medical or pharmacological treatments. |

### 4. Diagnosis of ADHD

Many adults with ADHD begin presenting with impairment when confronting the new and increasingly complex tasks of adulthood that cannot be managed with their existing coping mechanisms and neuropsychological repertoire.

- Domains of **emotional**, **educational**, and **social adjustment** are variable in patients with ADHD; it is important to identify the level of impairment in each of these areas to individualize treatment and determine the severity of the disorder.
  - The **diagnosis of ADHD** requires at least five out of the nine symptoms listed for **inattention** and/or **hyperactivity/impulsivity**. The symptoms must be present in more than one setting, and they must interfere with social, academic, or occupational functioning. Some symptoms must have been present before age twelve per DSM-5.
**DIFFERENTIAL DIAGNOSIS AND COMORBID DISORDERS**

ADHD is highly co-occurring with other psychiatric disorders, including substance use disorders (see below), learning disabilities, intellectual disability, conduct disorder, and antisocial personality disorder. For a **DIFFERENTIAL DIAGNOSIS**, it is crucial to rule out disorders that mimic symptoms of ADHD. **TABLE 2** below lists conditions that may co-occur with ADHD, or that may mimic the symptoms of ADHD.

**TABLE 2. DIFFERENTIAL DIAGNOSIS OF ADULT ADHD**

<table>
<thead>
<tr>
<th>DISORDER</th>
<th>DISTINGUISHING THE DISORDER FROM ADHD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INTELLECTUAL DISABILITY</strong></td>
<td>Neuropsychology testing can be useful in distinguishing intellectual disabilities and learning disabilities from Adult ADHD.</td>
</tr>
<tr>
<td><strong>AUTISM SPECTRUM DISORDERS</strong></td>
<td>ASDs present with impairments in social communication and interaction, and restricted, repetitive patterns of behavior, interests, and activities.</td>
</tr>
<tr>
<td>(ASD)</td>
<td></td>
</tr>
<tr>
<td><strong>ANXIETY DISORDERS</strong></td>
<td>Inattention and agitation in ADHD are not limited solely to anxiety themes.</td>
</tr>
<tr>
<td><strong>MAJOR DEPRESSION</strong></td>
<td>Inattention during a depressive episode resolves with the depressive episode.</td>
</tr>
<tr>
<td><strong>BIPOLAR DISORDER</strong></td>
<td>Inattention, impulsivity, and hyperactivity are episodic, coinciding with mood symptoms.</td>
</tr>
<tr>
<td><strong>PERSONALITY DISORDERS</strong></td>
<td>Frequently co-occur with adult ADHD. ADHD alone does not include the pervasive personality patterns diagnostic of personality disorders.</td>
</tr>
<tr>
<td><strong>PSYCHOTIC DISORDERS</strong></td>
<td>ADHD is not diagnosed if the symptoms occur only during psychotic episodes.</td>
</tr>
<tr>
<td><strong>NEUROCOGNITIVE DISORDERS</strong></td>
<td>Later onset than symptoms of ADHD. Neuropsychiatric testing is diagnostic for neurocognitive disorders.</td>
</tr>
</tbody>
</table>

**SUBSTANCE USE DISORDERS IN ADULTS WITH ADHD**

Adult ADHD is highly correlated with substance use disorders:

- The risk of having a substance use disorder is twice as high for those with ADHD, as compared to those without ADHD.
- Malingering symptoms of ADHD is a concern. Non-credible self-reports of ADHD symptoms correlate with potential secondary gains of receiving stimulant medication (which can be abused or diverted), and/or accommodations in work, school, or test taking situations.

**SUBSTANCE USE DISORDER (SUD) TREATMENT**: In addition to assessing current functioning, symptoms, and past history, an evaluation for misuse of drugs and alcohol is highly recommended. If indicated, a referral to a SUD treatment program may be indicated. For inmates who require drug and alcohol treatment, these programs may be offered concurrently or sequentially with ADHD treatment. However, inmates may derive more benefit from drug abuse programs (RDAP or NRDAP) or medications for opioid use disorder once they can maintain focus and attention to the programming.
5. TREATMENT OF ADHD

Safe and effective evidence-based pharmacological and psychotherapeutic treatments for ADHD have been established in clinical practice. Once the diagnosis of adult ADHD has been established, **CONCURRENT TREATMENT with both medication therapy and psychotherapy is recommended—rather than SEQUENTIAL TREATMENT**, where medications are used only if psychotherapy fails. As reviewed below under *Psychotherapeutic Treatment for ADHD* (Section 5.D.), several evidence-based group psychotherapies are available, and the choice among them should be based on local resources and the individual patient.

- *Treatment of ADHD improves the symptoms of INATTENTION, IMPULSIVITY, and HYPERACTIVITY, and may significantly aid in recovery from co-occurring disorders—as well as improvement of offending and criminal behavior.*

**MEDICATIONS USED IN ADHD MANAGEMENT**

Pharmacologic treatment for ADHD focuses on medications that block the dopamine transporter or the norepinephrine transporter. The inhibition of these transporters increases free levels of norepinephrine and dopamine to target issues of impulsivity, inattention, and hyperactivity.

Pharmacological treatments include PSYCHOSTIMULANT and NON-STIMULANT medications. There is adequate evidence of the efficacy and safety of the non-stimulants and although effective in treating adult ADHD symptoms, **psychostimulants present many difficulties in the correctional setting**. Due to risk of abuse and diversion, as well as the possibility that withholding stimulants until failure with a non-stimulant can have the unintended consequence of motivating that treatment failure, **psychostimulants should not commonly be prescribed first-line for treating patients within the correctional setting.**

**Below is a discussion of medications—both NON-STIMULANTS and PSYCHOSTIMULANTS—used for treating adult ADHD.**

- See the *Non-Stimulant Pharmacologic Treatment Algorithm* (Section 5.B.) for a discussion and flowchart of the step-by-step approach to medical treatment of adult ADHD in the BOP.
- Refer to online drug information or a BOP pharmacist for a comprehensive review of adverse reactions, drug interactions and monitoring recommendations for each medication.

**ATOMOXETINE (STRATTERA®)**

An FDA-approved non-stimulant medication for adult ADHD, atomoxetine is an inhibitor of the presynaptic norepinephrine transporter. Unlike psychostimulants, atomoxetine may take several weeks to show efficacy, and should be taken **DAILY for a cumulative beneficial effect** (i.e., no “drug-holidays” on weekends, vacations, etc.).

- **DOsing:** The initial dose is 40 mg, titrating to effect as per official labeling information, to effective dose of 80 - 100 mg per day.
- **SIDE-EFFECTS:** Although generally very well tolerated, potential adverse reactions include nausea, reduced appetite, dry mouth, constipation, sweating, erectile dysfunction, and reduced libido.
- **ADVANTAGES:** Atomoxetine has no known abuse potential and is therefore considered the preferred medication treatment for adult ADHD in those who have the potential for misuse of stimulants. Other advantages of this agent include once-daily dosing and a mild anti-anxiety effect, which may be beneficial in patients managing other psychiatric comorbidities.
GUANFACINE
Guanfacine, an alpha-2a agonist that is FDA-approved for treating ADHD in patients up to 17 years old, is off-label for treating adults with ADHD.

- **USE**: Guanfacine is utilized as monotherapy or as adjunctive therapy with psychostimulants, as well as with non-stimulant options such as atomoxetine.
  
  ➔ *Guanfacine and clonidine should not be used together for the treatment of adult ADHD.*

- **DOSSING**: Optimal dosing and guanfacine’s role in ADHD treatment have not been established for adults; determination of dosing should be made in discussion with an experienced psychiatrist and/or psychiatric clinical pharmacist.

- **SIDE-EFFECTS AND DRUG INTERACTIONS**: Potential adverse reactions include hypotension, sedation, and rebound hypertension upon sudden discontinuation. There are significant drug interactions between guanfacine and several commonly used medications. Prescribers should consult with a BOP pharmacist prior to initiation.

- **ADVANTAGES**: Guanfacine has no known abuse potential. Also, guanfacine may be less sedating in some patients and has a longer duration of action than clonidine.

CLONIDINE
Clonidine is an alpha-2a agonist at norepinephrine receptors that has effect on symptoms of hyperactivity and impulsivity, but not on symptoms of inattention.

- **USE**: Like guanfacine, clonidine is utilized as monotherapy or adjunctive therapy with psychostimulants and non-stimulant options such as atomoxetine. Guanfacine may be less sedating in some patients and has a longer duration of action than clonidine. Thus, clonidine should be utilized as an adjunctive option secondary to guanfacine in adult ADHD.

  ➔ *Clonidine and guanfacine should not be used together for the treatment of adult ADHD.*

- **DOSSING**: Optimal dosing is dependent upon clonidine formulation. Only clonidine ER (Kapvay®) carries an FDA-approved indication for ADHD, and use of all other formulations is off-label. Determination of formulation and dosing should be made in discussion with an experienced psychiatrist and/or clinical pharmacist.

- **SIDE-EFFECTS**: Common adverse reactions include sedation, drowsiness, dizziness, constipation, dry mouth, headache, and possible hypotension. Blood pressure and orthostatics should be closely monitored—especially at baseline, at each dose increase, and at follow-up.

DESIPIRAMINE (NORPRAMIN®)
Tricyclic antidepressants (TCAs) such as desipramine have been shown to be efficacious, off-label treatment options in adult ADHD by improving mood and decreasing hyperactivity. Desipramine, which selectively inhibits the reuptake of norepinephrine, is the most studied of the TCAs for treating ADHD.

- **DOSSING**: The starting dose for adult ADHD is 100mg/day titrated to effect as per official labeling information, with maximum dose of 200 mg/day.

- **SIDE-EFFECTS**: Common anticholinergic adverse reactions of this agent include blurred vision, constipation, drowsiness, dry mouth, and more. Cardiovascular adverse reactions include increases in blood pressure and pulse, as well as prolonged QT interval. Patients should be evaluated for cardiac risk, and an EKG should be considered prior to initiation.

- **ADVANTAGES AND DISADVANTAGES**: Advantages of TCAs include once-daily dosing and established efficacy for comorbid depression and anxiety. However, these agents are less effective at improving concentration or cognitive tasks. In addition to the risks of anticholinergic adverse reactions, TCAs have a risk of serious cardiovascular adverse events.
**BUPROPION (WELLBUTRIN®)**

Bupropion is a non-stimulant that has been shown to be efficacious, off-label, in the treatment of ADHD, especially in patients presenting with co-occurring depression and other mental health disorders. Bupropion has mixed catecholaminergic effects and inhibits the re-uptake of norepinephrine and dopamine.

- **DOSING:** Optimal dosing is dependent upon bupropion formulation. The immediate-release formulation is preferred due to the ability to be crushed prior to administration. Determination of formulation and dosing should be made in discussion with and experienced psychiatrist and/or psychiatric clinical pharmacist.

- **ADVERSE REACTIONS:** The major adverse reaction of bupropion is seizure, a risk that is increased with high doses, short-acting formulation, or history of epilepsy and/or history of bulimia.

- **CONSIDERATIONS AND USE:** Bupropion can be diverted and misused, as illustrated via the increasing numbers of case reports of abuse in the literature. This is an important consideration in correctional care and use requires directly observed administration.

**PSYCHOSTIMULANTS**

While stimulant medications are the most extensively tested and commonly prescribed medications for ADHD across the lifespan, non-stimulant pharmacologic options have established efficacy and are used as first-line treatment for adult ADHD in BOP facilities. **Psychostimulants should not commonly be prescribed first-line for treating patients within the correctional setting due to risk of misuse and diversion.** See the “black box” warning about psychostimulant abuse and dependence below.

- **USE:** Two stimulant classes are available to treat adult ADHD, methylphenidate and amphetamine, with several short-acting and long-acting medication options. The stimulants are dopamine and norepinephrine re-uptake inhibitors that have shown efficacy in alleviating the symptoms of ADHD, including attention span, distractibility, impulsive behavior, hyperactivity, and restlessness.

- **ADVERSE REACTIONS:** In therapeutic doses, stimulants are generally very well-tolerated, but common adverse reactions include reduced appetite, insomnia, and tics.

- **POTENTIAL FOR ABUSE:** Psychostimulants such as amphetamine, methylphenidate, and methamphetamine are categorized as Schedule II controlled substances per the DEA. This scheduling indicates that psychostimulants have a high potential for abuse, which may lead to severe psychological or physical dependence.

- **CORRECTIONAL CONSIDERATIONS:** The potential problems associated with prescribing of stimulants in correctional facilities include medication diversion and misuse, security concerns, and significant demands on corrections personnel to implement and monitor use (with concerns for abuse, malingering, and overall patient safety).

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**FDA BOXED WARNING ON PSYCHOSTIMULANTS ABUSE AND DEPENDENCE:**

CNS stimulants, including methylphenidate-containing products and amphetamines, have a high potential for abuse and dependence. **Assess the risk of abuse prior to prescribing, and monitor for signs of abuse and dependence while on therapy.** Long-term chronic use and abuse can lead to marked tolerance and psychological dependence, with varying degrees of abnormal behavior. Symptoms of chronic abuse may include insomnia, irritability, change in personality, and psychotic symptoms that may be clinically indistinguishable from psychotic disorders (particularly with parenteral or inhalational abuse). A careful assessment of benefit versus risk is recommended in patients with a known history of substance use disorder, including alcoholism.
NON-STIMULANT PHARMACOLOGIC TREATMENT ALGORITHM

See Figure 1 below for a flowchart of this step-by-step approach.

This stepwise, non-stimulant pharmacologic treatment algorithm is based on the adverse reactions and safety profiles of the agents used to treat ADHD. Close monitoring of adverse drug reactions and treatment effectiveness is necessary throughout the treatment process for all ADHD patients—especially during dose changes, discontinuation of agents, and with treatment of other psychiatric comorbidities.

1. The recommended first-line medication treatment is with **ATOMOXETINE**, titrating to effect as per official labeling information.

2. If there is an inadequate response to atomoxetine alone, then addition of the alpha-2a agonist **GUANFACINE** in the usual therapeutic doses is considered a second-line treatment approach.

3. If there is no response to guanfacine, discontinue guanfacine and consider a trial of the alternate alpha-2a agonist, **CLONIDINE**, in addition to the atomoxetine.

4. If limited or no improvement is established with an adjunctive alpha-2a agonist, TCAs may be effective, with **DESIPRAMINE** being used as the primary agent within this drug class.

   Typically, atomoxetine and the secondary alpha-2a agonist are discontinued prior to initiation of the TCA or bupropion. If used concurrently, monitor closely for drug interactions between alpha-2a agonist and TCA and consider dose reductions if needed.

5. **BUPROPION** is considered an efficacious and relatively safe option for treatment of adult ADHD. However, the abuse potential within the correctional setting warrants this agent to be considered last line within the BOP.

   **Bupropion is to be used only if other treatment options show no response or improvement of symptoms; it requires careful monitoring and administration via directly-observed therapy.**
**Figure 1: Non-Stimulant Pharmacologic Treatment Algorithm for Adult ADHD**

1. First-line pharmacologic agent:
   - **Atomoxetine (Strattera)**
   - *Initial Dosage*: 40 mg/day
   - *If no response*: Titrate to 80–100 mg/day

2. If no response to atomoxetine alone, then initiate:
   - **Atomoxetine (Strattera)**
   - + **Guanfacine**
   - Adjunctive Therapy
     *(alpha-2a agonist)*

3. If no response to adding guanfacine, *discontinue guanfacine* & initiate:
   - **Atomoxetine (Strattera)**
   - + **Clonidine**
   - Adjunctive Therapy
     *(alpha-2a agonist)*

4. If no response to atomoxetine + alpha-2a agonist:
   - **Desipramine (Norpramin)**
     *(tricyclic antidepressant)*
   - *Initial Dosage*: 100 mg/day

5. If no response to TCA therapy:
   - **Bupropion (Wellbutrin)**
   - *Dosage dependent upon formulation*

*Typically, atomoxetine and secondary alpha-2a agonist are discontinued prior to starting the TCA or bupropion. If used concurrently, monitor closely for drug interactions between alpha-2a agonist and TCA, and consider dose reductions if needed.*
**TREATMENT DURING PREGNANCY**

- The FDA has changed the Pregnancy and Lactation Labeling Rule (PLLR) in favor of narratives and more specific information about risks/benefits in special populations (including males of reproductive potential): [https://www.fda.gov/drugs/labeling/pregnancy-and-lactation-labeling-drugs-final-rule](https://www.fda.gov/drugs/labeling/pregnancy-and-lactation-labeling-drugs-final-rule)

- The majority of human data regarding pregnancy and lactation for ADHD pharmacologic agents is based on illicit amphetamine/methamphetamine exposure, not from therapeutic maternal use.

- The use of psychostimulants during pregnancy may lead to an increased risk of premature birth and low birth weight. In addition, newborns may experience symptoms of withdrawal from tolerance developed during fetal development. Behavioral problems may also occur later in childhood. Methylphenidate has been shown to correlate with an increased risk of fetal cardiac malformations when taken during the first trimester, whereas amphetamines do not appear to have this risk.

- Guanfacine is considered pregnancy risk category B, illustrating no evidence of risk in studies. All other treatment agents (atomoxetine, desipramine, clonidine, bupropion, and psychostimulants) are category C.

**PSYCHOTHERAPEUTIC TREATMENT FOR ADHD**

- **PSYCHOTHERAPY** approaches for adults with ADHD must individualize care focusing on specific problems faced by the patient: Poor time management, impulsiveness, insufficient problem-solving skills, academic and social failures, self-esteem issues, difficulties maintaining relationships, temper outbursts, antisocial behavior, substance use, etc.

- **COGNITIVE BEHAVIORAL THERAPY** is an active, directive, time-limited, structured psychotherapy approach used to treat a variety of psychiatric disorders. Cognitive techniques are utilized to teach the patient (1) to monitor negative automatic thoughts (cognitions); (2) to recognize the connections between cognition, affect, and behavior; (3) to examine the evidence for and against distorted automatic thought; (4) to substitute more reality-oriented interpretations; and (5) to learn to identify and alter the dysfunctional beliefs that predispose the patient to distort experiences.

- **USE IN THE CORRECTIONAL SETTING**: Several specific evidence-based, manualized cognitive behavioral therapies, suitable for use in a group format, exist and can be applied to adult ADHD. Advances in psychotherapy have been based on both research and clinical practice; significant scientific evidence illustrates that this treatment approach is proven to produce change.
  - Cognitive behavioral therapy has demonstrated efficacy for numerous indications, including depression, anxiety disorders, alcohol and drug use, and severe mental illness.
  - Cognitive behavioral therapy is also known to reduce recidivism in both juvenile and adult criminal offenders, including those prone to violence and with substance use disorders.
  - Therefore, this treatment method is especially useful in the correctional setting and can be tailored specifically to adult patients with ADHD and a criminal background.
RESOURCES


Adult ADHD Self-Report Scale (ASRS-v1.1) Symptom Checklist is available at: https://add.org/wp-content/uploads/2015/03/adhd-questionnaire-ASRS111.pdf

One adult ADHD cognitive therapy therapist guide and client workbook set is:

- *Mastering Your Adult ADHD: A Cognitive-Behavioral Treatment Program, Therapist Guide (Treatments That Work)* by Steven A. Safren and Susan E. Sprich
- *Mastering Your Adult ADHD: A Cognitive-Behavioral Treatment Program, Client Workbook (Treatments That Work)* by Steven A. Safren and Susan E. Sprich

REFERENCES


Sidebar: What is cognitive behavioral therapy? Available at: https://www.nij.ojp.gov/topics/articles/what-cognitive-behavioral-therapy


Habinski J, Segal A. Attention-deficit hyperactivity disorder (ADHD) and driving risk: a review of the literature and a methodological critique. *Curr Psychiatry Rep.* 2006;8:416.


Thapar TF, Russo J. An overview on the genetics of ADHD. *Xin Li Xue Bao.* 2008;40(10):1088–1098.


APPENDIX 1: ADULT ADHD SELF-REPORT SCALE (ASRS)

ASRS-v1.1 Symptom Checklist Instructions

The questions on the next page are designed to stimulate dialogue between you and your patients and to help confirm if they may be suffering from the symptoms of attention-deficit/hyperactivity disorder (ADHD).

Description: The Symptom Checklist is an instrument consisting of the eighteen DSM-IV-TR criteria. Six of the eighteen questions were found to be the most predictive of symptoms consistent with ADHD. These six questions are the basis for the ASRS v1.1 Screener, and are also Part A of the Symptom Checklist. Part B of the Symptom Checklist contains the remaining twelve questions.

Instructions for Assessing ADHD Symptoms

1. Ask the patient to complete both Part A and Part B of the Symptom Checklist by marking an X in the box that most closely represents the frequency of occurrence of each of the symptoms.

2. Score Part A. If four or more marks appear in the darkly shaded boxes within Part A, then the patient has symptoms highly consistent with ADHD in adults and further investigation is warranted.

3. The frequency scores on Part B provide additional cues and can serve as further probes into the patient’s symptoms. Pay particular attention to marks appearing in the dark shaded boxes. The frequency-based response is more sensitive with certain questions. No total score or diagnostic likelihood is utilized for the twelve questions. It has been found that the six questions in Part A are the most predictive of the disorder and are best for use as a screening instrument.

Instructions for Assessing Impairments

1. Review the entire Symptom Checklist with your patients and evaluate the level of impairment associated with each symptom.

2. Consider work/school, social, and family settings.

3. Symptom frequency is often associated with symptom severity; therefore, the Symptom Checklist may also aid in the assessment of impairments. If your patients have frequent symptoms, you may want to ask them to describe how these problems have affected the ability to work, take care of things at home, or get along with other people such as their spouse/significant other.

Instructions for Assessing History of ADHD

1. Assess the presence of these symptoms or similar symptoms in childhood. Adults who have ADHD need not have been formally diagnosed in childhood. In evaluating a patient’s history, look for evidence of early-appearing and long-standing problems with attention or self-control. Some significant symptoms should have been present in childhood, but full symptomology is not necessary.
ADULT ADHD SELF-REPORT SCALE (ASRS-v1.1) SYMPTOM CHECKLIST

<table>
<thead>
<tr>
<th>Patient Name:</th>
<th>Today’s Date:</th>
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Please answer the questions below, rating yourself on each of the criteria shown, using the scale on the right side of the page. As you answer each question, place an X in the box that best describes how you have felt and conducted yourself over the past 6 months. Please give this completed checklist to your healthcare professional to discuss during today’s appointment.

### Part A

1. How often do you have trouble wrapping up the final details of a project, once the challenging parts have been done?

2. How often do you have difficulty getting things in order when you have to do a task that requires organization?

3. How often do you have problems remembering appointments or obligations?

4. When you have a task that requires a lot of thought, how often do you avoid or delay getting started?

5. How often do you fidget or squirm with your hands or feet when you have to sit down for a long time?

6. How often do you feel overly active and compelled to do things, like you were driven by a motor?

### Part B

7. How often do you make careless mistakes when you have to work on a boring or difficult project?

8. How often do you have difficulty keeping your attention when you are doing boring or repetitive work?

9. How often do you have difficulty concentrating on what people say to you, even when they are speaking to you directly?

10. How often do you misplace or have difficulty finding things at home or at work?

11. How often are you distracted by activity or noise around you?

12. How often do you leave your seat in meetings or other situations in which you are expected to remain seated?

13. How often do you feel restless or fidgety?

14. How often do you have difficulty unwinding and relaxing when you have time to yourself?

15. How often do you find yourself talking too much when you are in social situations?

16. When you’re in a conversation, how often do you find yourself finishing the sentences of the people you are talking to, before they can finish them themselves?

17. How often do you have difficulty waiting your turn in situations when turn taking is required?

18. How often do you interrupt others when they are busy?
THE VALUE OF SCREENING FOR ADULTS WITH ADHD

Research suggests that the symptoms of ADHD can persist into adulthood, having a significant impact on the relationships, careers, and even the personal safety of your patients who may suffer from it. Because this disorder is often misunderstood, many people who have it do not receive appropriate treatment and, as a result, may never reach their full potential. Part of the problem is that it can be difficult to diagnose, particularly in adults. The Adult ADHD Self-Report Scale (ASRS-v1.1) Symptom Checklist was developed in conjunction with the World Health Organization (WHO), and the Workgroup on Adult ADHD that included the following team of psychiatrists and researchers:

- Lenard Adler, MD
  Associate Professor of Psychiatry and Neurology
  New York University Medical School

- Ronald C. Kessler, PhD
  Professor, Department of Health Care Policy
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- Thomas Spencer, MD
  Associate Professor of Psychiatry
  Harvard Medical School

As a healthcare professional, you can use the ASRS v1.1 as a tool to help screen for ADHD in adult patients. Insights gained through this screening may suggest the need for a more in-depth clinician interview. The questions in the ASRS v1.1 are consistent with DSM-IV criteria and address the manifestations of ADHD symptoms in adults.

Content of the questionnaire also reflects the importance that DSM-IV places on symptoms, impairments, and history for a correct diagnosis.

The checklist takes about 5 minutes to complete and can provide information that is critical to supplement the diagnostic process.

References: