ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD): TREATMENT PLAN

General Information
ADHD is a brain disorder that is characterized by inattention and distractibility. These symptoms can be accompanied by hyperactivity in some individuals but not in others. The difference is specified by subtype. ADHD is a commonly-occurring disorder in childhood, but more than half of patients may continue to have symptoms that persist into adulthood. While the cause of ADHD is not known, science has identified some possible factors that may play a role in the development of ADHD. These include genetic predisposition, alterations in brain activation during task engagement, neurotransmitter activity, prenatal factors, and environmental factors.

ADHD Subtypes
▪ Predominately Inattentive Type (formerly known as ADD)
▪ Predominately Hyperactive-Impulsive Type
▪ Predominately Combined Type

Life Consequences
▪ ADHD can cause impairment in school and work achievement, and cause relationship and social problems
▪ Low self-esteem
▪ Accidents, poor driving record, poor decision-making (inability to stop and think through risks)

ADHD is commonly associated with other illnesses.
▪ Patients are at higher risk for nicotine dependence
▪ Anxiety
▪ Behavioral disturbances in teens and children
▪ Substance use disorders
▪ Depression
Testing, Assessments & Monitoring

The most important part of developing an effective treatment plan is getting an accurate diagnosis. While this may be straightforward for some people, for others it may be challenging. In younger patients, those with developing mood disorders can have symptoms very similar to those with ADHD. Those with Predominately Inattentive Type ADHD may seek help for depression and low self-esteem having never recognized the underlying disorder. Patients who have sleep disorders can present with inattention and problems with concentration. It will be important for you and your provider to work together to better understand your symptoms and possible causes. In addition to the diagnostic interview, your provider may ask you to undergo additional testing.

Standard Assessments

*Physical Exam*: If you have not seen your primary care physician (PCP) within the last year, your provider will likely encourage you to have a physical. If you do not have a PCP, we have physicians available to provide this level of care.

*Lab Work*: Your provider may need lab results to determine your health status prior to prescribing medications, if needed.

*Allergy Testing*: Allergy testing may be appropriate for some individuals, as allergies cause inflammation which contributes to symptoms that may be associated with ADHD.

*ECG*: An electrocardiogram (ECG) may be needed prior to the use of some medications which may affect cardiac function.

Innovative Testing

*CNS Vital Signs Neurocognitive Testing*: A computerized neurocognitive testing platform that assesses how well your brain is managing tasks, such as working memory, verbal memory, concentration, processing speed, and executive functioning. These results give your provider objective measures and can identify areas of impairment, or may be used to track improvement in function. This test is very helpful in identifying impairments common in ADHD patients. For adult patients, we require CNS testing or alternative testing to support a diagnosis prior to prescribing certain medications. If you prefer, you can pursue face-to-face testing with a psychologist in lieu of CNS testing.
**qEEG:** Quantitative electroencephalogram (qEEG) measures the electrical activity in the brain using surface electrodes. Data is then analyzed by a computer program, producing a colorized map that demonstrates brain areas with low or excessive activity compared to databases of established norms. This gives your provider objective information about which area(s) in the brain may be affected by or generating the dysfunction. This information may help explain your symptoms. There are several different types of patterns that can be associated with the symptoms of ADHD.

**Monitoring**
Clinical scales (self-monitoring surveys) are required at every visit. This information is important to your provider and key to tracking your symptoms and progress. In addition to scales for ADHD, the clinic will assess for depression and anxiety symptoms, as these are common for patients with ADHD.

**Treatment Options**
Treatment will likely require more than one type of intervention to achieve the best results. Some individuals may need to try several combinations of treatments. Listed below are some of these interventions.

**Exercise**
- Exercise can be beneficial for individuals with ADHD.
- Additionally, exercise is a healthy option to use as a stress management tool. SMART centers endorse the commitment to improving overall health through the adoption of a healthy lifestyle including exercise.

**Diet**
- While there have been limited and mixed results in studies of dietary changes to improve ADHD, good dietary habits are key to overall health.
- If your child suffers from food sensitivities, the elimination of these foods will be important in removing their effect on ADHD symptoms.
- Some medications used to treat ADHD may diminish appetite. Children and teens will need to be monitored to ensure proper growth and development.

**Innovative Therapy**
- **Neurofeedback:** Providing feedback during trial and error, and using repetition, computer assisted neurofeedback is employed to improve neural processing. Studies have demonstrated neurofeedback is effective in improving symptoms associated with ADHD. For those who cannot tolerate medications, or prefer to not take them, neurofeedback is an alternative treatment option.
Therapy

- Several different types of therapy have been identified as beneficial for those with ADHD.
- In children and teens with behavioral problems, therapy will be essential to help them learn new coping and self-regulation skills.
- Social skills may lag in young patients with ADHD and therapy may assist in learning needed skills.
- Family therapy may be recommended when conflicts within the family are significant, or when the family feels overwhelmed and needs support learning to manage their child’s behavioral problems.
- When untreated ADHD has resulted in long-standing impairments in work or social life, therapy may be needed to address the negative impact to self-esteem.

Medications

- Stimulant medications are commonly used. However, these drugs do have abuse potential and are not prescribed to individuals who have Substance Use Disorders. These medications are closely monitored and are not refilled if appointments are missed.
- Some ongoing lab testing such as a urine drug screen will be required. Other testing may become necessary if other medical problems arise, other medications are prescribed, or complications of these medications occur.
- Stimulant medications may cause a decreased appetite, cause anxiety, interfere with sleep, cause weight loss, and do carry a small risk for psychosis (severely impaired thoughts and emotions) in younger patients. There is potential for increased heart rate. For patients with cardiovascular disease, such as uncontrolled high blood pressure or arrhythmias, testing such as an ECG may be required, and at times, may prohibit the use of these medications.
- Other medications may be used including Strattera (atomoxetine), antidepressant medications, or modafinil. A class of medications called alpha 2 agonists may be used in children. These can cause sedation and can have an impact on blood pressure.
- Medications alone will not manage all the symptoms of ADHD. Stimulant medications remain active in the body for only a short time. Other essential interventions will be needed to manage symptoms, including increased structure and routine, use of planners or calendars, having an organized work space, as well as the recommendations listed above.
Achieving Better Outcomes

Things to Avoid

▪ Do not use drugs or alcohol to cope with your ADHD symptoms. Having ADHD puts you at greater risk of developing substance use problems.
▪ Do not misuse your medication or adjust your dosage without consulting your provider. No early refills are available on controlled prescriptions.
▪ Be careful when driving. Do not use cell phones or loud radios that might further disrupt your focus and attention.

Things to Do

▪ Educate yourself. Learn about ADHD. You may find information on the National Institute of Mental Health and National Alliance on Mental Illness web sites.
▪ Support groups are available for parents who are caring for children with ADHD.
▪ Organize your environment and set yourself up for better performance. Place your papers and equipment in the same identified spots every time. Use a scheduling tool such as your phone or a planner. Use lists and review them daily. Set up a list for tomorrow each night and plan your day. When you have projects to complete, create a timeline for due dates, a list of materials you will need, and estimate how long it will take to get to your goal.
▪ Pay attention to medication refill needs. You might consider placing a week’s worth of medication in a separate bottle and call for a refill when you open it.
▪ Set reasonable goals and expectations. Be certain you have adequate time and resources to accomplish what you set out for yourself.
▪ Keep every appointment.
▪ Be certain that you keep your provider informed about any new stresses or life events, and about any physical illnesses or medications you are taking that are new.
▪ It may be necessary for the provider to have information about how your child with ADHD is doing in school. Therefore, you may be asked to give your child’s teacher some clinical measurement scales to fill out.
▪ For parents of children with ADHD, your child may benefit from consistent rules (bedtimes, homework times, chores). These children may have difficulty in environments that are unstructured.
▪ Parents with children who have ADHD may need to work with the school to access necessary accommodations to meet their educational needs. This may require that your provider fill out forms for the school. We will support your needs, but please consider the time frame needed for completion. If you need a quick turn-around, consider scheduling an appointment with your child’s provider to complete the forms together. The SMART team is here to work with you to achieve improved health and wellness.
Smart Health & Wellness Centers serves patients in our communities utilizing a collaborative, team approach to provide personalized health and wellness through comprehensive assessment and patient education to enable earlier disease intervention.

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