Minds Matter
Ohio Psychotropic Medication Quality Improvement Collaborative

Algorithm D

Inattention, Hyperactivity, Impulsivity

D.1.

Patient presents with any of the following concerns expressed by parent, caregiver, teacher, or social service worker:

- **Inattention** – Child gets bored easily, lacks concentration, is easily distracted.
- **Hyperactivity** – Child always seems to be in motion, fidgety or restless.
- **Impulsivity** – Child often speaks and acts without thinking first, finds it difficult to wait.

D.2. EVALUATE

PATIENT/FAMILY INTERVIEW

- Review 18 ADHD symptoms in DSM criteria.
- History of symptoms:
  - Duration, severity, frequency
  - Age of onset
  - Circumstances and settings of occurrences
- Mental health and educational history.
- Adverse childhood experiences or trauma.
- Perinatal, medical, and developmental histories.
- Family history, structure, functioning, social interaction.

PHYSICAL/DEVELOPMENTAL ASSESSMENT

- Hearing or vision problems.
- Sleep difficulties (e.g., obstructive sleep apnea).
- Learning problems or disabilities.
- Developmental problems.
- Language impairment or disorder.
- Assess function, vocabulary, thought processes.
- Physical Illness.
- Laboratory and/or neurological exams if warranted by medical history.
- Toxin exposure and other general medical conditions (e.g., epilepsy, hyperthyroidism, cardiac disorders).

D.3. VALIDATE DIAGNOSTIC IMPRESSION

ADHD SYMPTOM VALIDATION

- Complete Vanderbilt ADHD Rating Scales with:
  - Parent (See *Parent Scale*)
  - School (See *Teacher Scale*)
- Obtain academic records and administrative reports.

CONSIDER OTHER CONDITIONS

- Identify potentially confounding signs/symptoms.
- Depression, irritability, and mood dysregulation. (See tool kit section: *Moodiness and Irritability*.)
- Agitation, aggression, and disruptive behaviors. (See tool kit section: *Disruptive Behavior and Aggression*.)
- Anxiety
- Substance Abuse.
- Cognitive impairment.
- Medical tests as indicated (e.g., blood tests, EKG).
- Psycho-educational testing if learning disorder suspected.

D.4.

Patient meets DSM criteria for ADHD? (See *ADHD Treatment Guide*.)

- NO → D.5.
- YES → D.7.

D.5.

Other condition?

- YES → D.6.
- NO → D.8.

D.6.

Exit this guideline. Evaluate or refer, as appropriate.

D.7.

Co-existing conditions?

- YES → D.9.
- NO → D.13.

D.8.

Consider offering parent management training and behavioral management strategies.

D.9.

Is ADHD the primary focus of treatment?

- NO → D.10.
- YES → D.13.

D.10.

- Address primary focus.
- Assess impact of coexisting conditions on treatment.
- Evaluate or refer as needed.

D.11.

Is concomitant treatment of ADHD appropriate?

- NO → D.12.
- YES → D.13.

D.12.

Treat primary focus and ongoing assessment and monitoring.

D.13. OBTAIN BASELINE ASSESSMENT

- Check height, weight, and BMI.
- Check pulse and blood pressure.
- Assess and note any pre-treatment tics.
- Assess for cardiac risk factors (e.g., structural heart disease, syncope, family history of early cardiac death or arrhythmia).

D.14. CONSUMER/PARENT ENGAGEMENT AND CONSENT

- Utilize motivational interviewing, technological & media education, parental self-education, and parent support groups to engage parents & consumers in educational process.
- Include topics of ADHD medications, evidence-based therapies, and school intervention.

See *Shared Decision-Making Process*.

D.15. SELECT TREATMENT REGIMEN(S)

OPTION: MEDICATION

- Stimulants are most commonly used to treat ADHD.
- When appropriate, long-acting stimulants are preferred.
- Extra caution recommended for preschoolers.
- See *ADHD Treatment Guide*.

OPTION: EVIDENCED-BASED THERAPIES

- Consider parent training as first line treatment for preschoolers.
- See *ADHD Treatment Guide*.

OPTION: SCHOOL INTERVENTIONS

- *See ADHD tool kit section: School & Community Agencies.*

D.16.

Are symptoms effectively managed?

- NO → D.17.
- YES → D.18.

D.17.

Reevaluate diagnosis and treatment plan, consider alternate intervention and/or consultation with PPN/specialist. See *ADHD Treatment Guide*.

D.18. PATIENT MONITORING

FREQUENCY OF MONITORING

- At least monthly for new patients, and in circumstances where dose or medication is changed, until effective and stable, tolerated medication dosage is reached.
- At least every 3 months for stable patients.

EVALUATE SIDE EFFECTS

- Check height, weight, and BMI.
- Check pulse and blood pressure.
- Discuss side effects with patient/caregiver.

MEASURE OUTCOMES

Evaluate Duration

Duration of ADHD Medications.

Evaluate Efficacy

- Vanderbilt ADHD Rating Scales – *Parent, Teacher & Follow Up*.

Target Outcomes (any or all of following)

- At least 25% reduction in total symptom score.
- And/or child no longer meets DSM criteria.
- And/or child no longer meets inattention and/or hyperactivity/impulsivity scale on Vanderbilt.

D.19.

Insufficient efficacy?

- YES → D.24.
- NO → D.20.

D.20.

Insufficient duration?

- YES → D.23.
- NO → D.21.

D.21.

Are there side effects that warrant intervention?

- YES → D.22.

D.22.

See *ADHD Side Effects and Intervention Chart*.

D.23.

- Evaluate medication compliance.
- Consider medication administration using school nurse.
- Consider long-acting medication or adding a short-acting medication.
- Assess for rebound effect.

D.24.

- Adjust dosage or change medication.
- Consider adding or intensifying psychosocial therapies.

D.25.

Are side effects effectively managed?

- NO → D.26.
- YES → D.27.

D.26.

Reevaluate diagnosis and treatment plan, consider alternate intervention and/or consultation with PPN/specialist. See *ADHD Treatment Guide*.

D.27.

Is impairment significantly reduced?

- NO → D.28.
- NO → D.18.
- YES → D.29.

D.28.

Reevaluate diagnosis and treatment plan, consider alternate intervention and/or consultation with PPN/specialist. See *ADHD Treatment Guide*.

D.29. ONGOING MONITORING

- After initial session of parent training (typically 3-6 months), consider psychosocial interventions to address comorbidities.
- Every year, conduct complete diagnostic assessment.
- Every year consider a 1-2 week medication holiday during a selected, strategic time (perhaps summer holiday) to re-assess need for medication.
- Coordinate care provided by medical home and specialists, parents/caregiver, and school (e.g., psychosocial, exercise, nutrition or environmental adjustments).

LEGEND

- = START
- = DECISION
- = ACTION/PROCESS
- = STOP
- = YES GO TO NEXT ACTION
- = NO

SOURCES: 1. American Academy of Child & Adolescent Psychiatry. *Attention-Deficit/Hyperactivity Disorder Pocketcard.* http://eguideline.guidelinecentral.com/i/55268
2. American Academy of Pediatrics. *Addressing Mental Health Concerns in Primary Health Care A Clinician's Toolkit.*