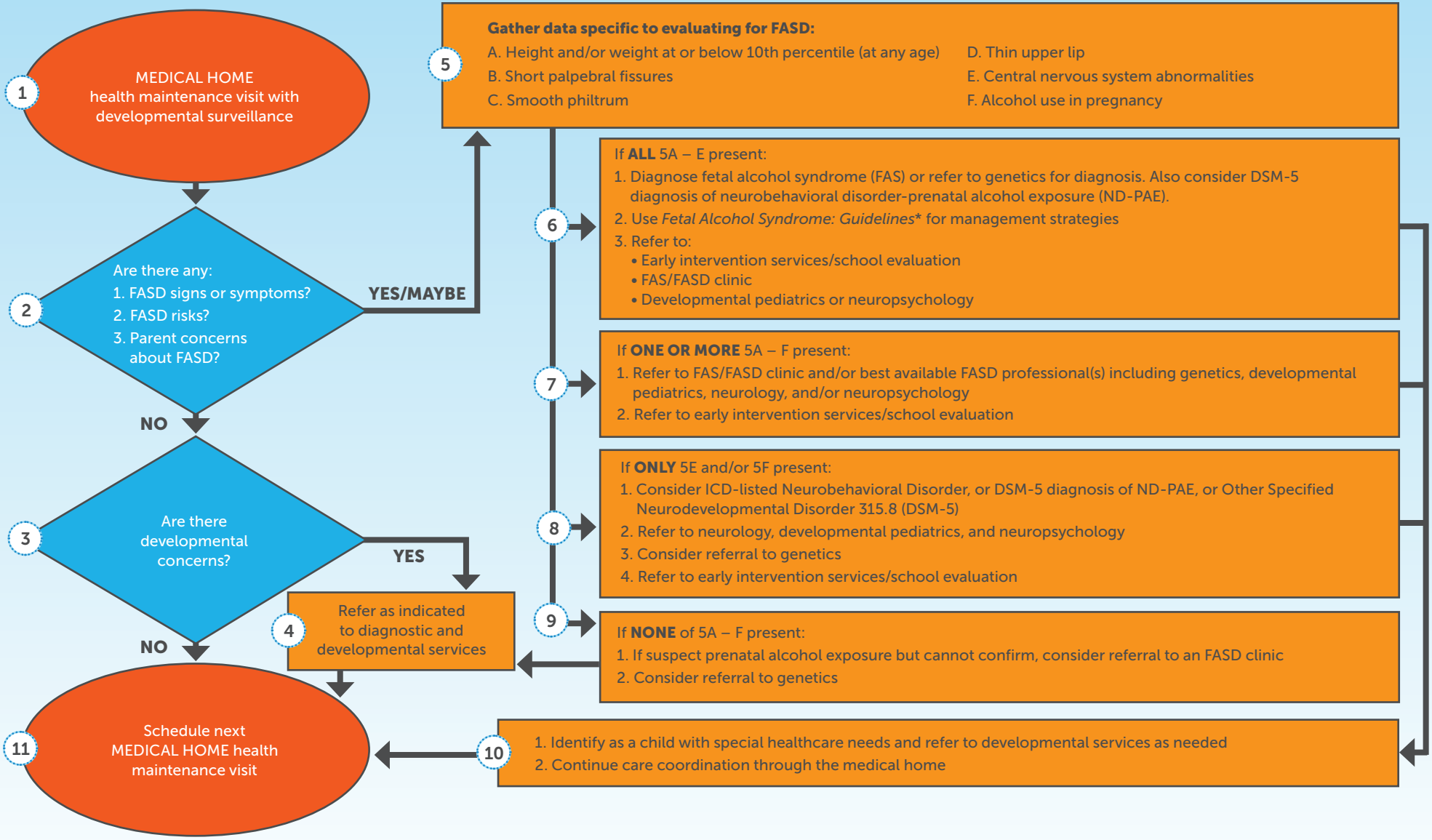
Flow Diagram* for Medical Home Evaluation of Fetal Alcohol Spectrum Disorders (FASD)

Universal Flow Diagram Symbols

Start/Stop | Process | Decision



*Page 2: Flow Diagram pathway details; FAS criteria; Selected resources. The flow diagram was developed by the FASD Expert Panel of the AAP via cooperative agreement #5U38OT000167 with the Centers for Disease Control and Prevention (CDC); does not necessarily represent the views of the CDC.

EVALUATING A CHILD FOR FETAL ALCOHOL SPECTRUM DISORDERS (FASD)

The Flow Diagram was devised to facilitate greater clinical recognition of children with fetal alcohol spectrum disorders (FASD), including fetal alcohol syndrome (FAS), while acknowledging that FASD could and should be recognized in individuals of any age. The AAP working in concert with the Centers for Disease Control and Prevention created this Flow Diagram to guide medical home providers through effective FAS/FASD screening, early identification, management, and referral. The term fetal alcohol spectrum disorders describes the range of outcomes that can occur in an individual who was exposed to alcohol *in utero*. This term is not intended as a specific clinical diagnosis, but refers to a continuum of conditions or 'disorders' that may include physical, mental, behavioral, and/or learning disabilities with possible lifelong implications. FAS, considered the most severely affected 'tip of the FASD iceberg,' has very specific diagnostic criteria.[1] Other FASD are Partial FAS, alcohol-related birth defects (ARBD), neurobehavioral disorder-pre-natal alcohol exposure (ND-PAE), and alcohol related neurodevelopmental disorder (ARND). Research will continue to delineate this evolving category as specific diagnostic criteria can be defined.

Box #	Detailed Explanation
1	Intrinsic to all pediatric medical home well child visits is surveillance of growth and development and documentation of the complete patient history and physical examination, including a history of alcohol exposure and other risk factors.[3]
2	FASD signs and symptoms include: growth deficits of height and/or weight at or below the 10th percentile at any age, microcephaly, developmental or behavioral concerns, and specific facial features that include short palpebral fissures, smooth philtrum, and thin upper lip. FAS/FASD risk factors include: known/suspected maternal alcohol or other substance use; patient's sibling has FAS/FASD; patient was adopted; patient ever in foster care system. Any parental concern expressed about the possibility of an FASD always warrants further evaluation.
3, 5	CNS abnormalities associated with FASD include: microcephaly, focal neurological deficits, known MRI abnormalities, cognitive/developmental/behavioral problems. To meet the FAS diagnostic criteria, **structural** (microcephaly and/or abnormality on neuroimaging), **neurological** (seizure or abnormality on neurological exam), **OR functional** abnormalities must be documented. [Functional = (1) Global cognitive deficits or significant developmental delay in a child too young for an IQ assessment (e.g., IQ or developmental quotient below 3rd percentile) **OR** (2) Deficits (below 16th percentile) in THREE or more specific functional domains, e.g., cognitive, academic, executive function, attention, memory, adaptive, motor, language, social skills, etc.]
5	Document a comprehensive history and physical exam specifically seeking FASD manifestations. The 5a. growth delay is not explained by post-natal environment or parental height. Dysmorphic facial features meet strict criteria with racial norms detailed in Jones KL. Fetal alcohol syndrome. In: *Smith's Recognizable Patterns of Human Malformation*. 6th ed. Philadelphia, PA: Elsevier Saunders; 2006:646-651.
6	Meeting **all** FAS diagnostic criteria establishes definitive FAS diagnosis.[2] Children with prenatal alcohol exposure (PAE) and FASD-associated CNS abnormalities but without the FAS facial features meet the DSM-5 diagnostic criteria for ND-PAE. Facial features consistent with FAS but not sufficient to meet complete FAS criteria could be included as additional descriptors (e.g., short palpebral fissures with normal lip and philtrum).
6-9	Refer to specialized care for comprehensive evaluation and/or specific management. Referral does not eliminate the possibility of FAS/FASD or the need for continued care coordination through the medical home. Consider referral to genetics to confirm diagnosis and/or diagnose co-morbid conditions.
4, 10-11	The pediatric medical home coordinates and facilitates all aspects of comprehensive and continuing patient care, including referrals, educational services, health care specialists and community partners.

SELECTED RESOURCES:

1. *Fetal Alcohol Syndrome: Guidelines for Referral and Diagnosis* (NCBDDD/CDC/DHHS & National Task Force on FAS/FAE) www.cdc.gov/ncbddd/fasd/documents/FAS_guidelines_accessible.pdf
2. www.cdc.gov/fasd 1-800-CDC-INFO (800-232-4636) TTY: (888) 232-6348 Available 24/7.
3. Identifying Infants and Young Children with Developmental Disorders in the Medical Home: An Algorithm for Developmental Surveillance & Screening: http://pediatrics.aappublications.org/content/118/1/405
4. AAP FASD Program. www.aap.org/fasd
5. Characteristics of Children Whose Siblings Have Fetal Alcohol Syndrome or Incomplete Fetal Alcohol Syndrome http://pediatrics.aappublications.org/content/123/3/e526
6. The National Organization on Fetal Alcohol Syndrome (NOFAS) – a non-profit organization dedicated to FASD prevention, education, intervention, and public policy in communities nationally and internationally. www.nofas.org
7. Fetal Alcohol Community Resource Center (Tucson, AZ) for parents, teachers and others. www.come-over.to/FASCRC
8. "Let's Talk FASD" - a free downloadable manual for care providers, parents and teachers in Canada. www.von.ca/fasd/_fasdtool_fullproof_final.pdf
9. Substance Abuse and Mental Health Services Administration. Addressing Fetal Alcohol Spectrum Disorders (FASD). Treatment Improvement Protocol (TIP) Series 58. HHS Publication No. (SMA) 13-4803. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2014. http://store.samhsa.gov/product/TIP-58-Addressing-Fetal-Alcohol-Spectrum-Disorders-FASD-/SMA13-4803