FAOD Screening (CUD, SCAD, GAII, MCAT, VLCAD, CACT, CPTII, CPT1A, LCHAD, TFP)
Oklahoma State Department of Health FAOD Protocol

FAOD Screen
Out-of-Range (abnormal)

NO → Not consistent with FAOD. No further action needed.

YES

LOW RISK

1. PCP to contact family within 24 hours to assess infant's clinical status.
2. Consider initiating feeding precautions.
3. Repeat Filter Paper within 48 hours.

In-Range → Not consistent with FAOD. No further follow-up indicated.

Out-of-Range

HIGH RISK

From time of report, the contacted provider will:

1. Contact family by COB (close of business),
2. Initiate feeding precautions on the day of notification,
3. Arrange for a clinical evaluation within 8 to 24 hours utilizing the Emergency Management Protocol (assessment can be done by provider or metabolic specialist).
4. **Low C0: Assessment must occur on the date of notification.**
5. Refer for a diagnostic work-up by Metabolic Specialist within 24 to 48 hours. Metabolic nurse specialist will assist with scheduling patient.

Appointment with metabolic specialist for diagnostic testing (testing must be coordinated by the specialist or newborn screening program):

1. Acylcarnitine Profile (plasma)
2. Carnitine (plasma)
3. Urine Organic Acids
4. Other lab and/or DNA may be indicated

Diagnostic Testing Inconclusive: Monitoring and medical management as advised by metabolic specialist.

Diagnostic Testing Consistent with FAOD: Refer to metabolic specialist for medical management.

Diagnostic Testing Within Normal Limits: Not consistent with FAOD. No further follow-up indicated.

From the time the screen is reported to the provider, the Metabolic Nurse Specialist will monitor follow-up by:

1. Confirming the provider contacts family before COB.
2. Facilitating and confirming a clinical evaluation by a provider or metabolic specialist is achieved before COB.
3. Facilitating and confirming infant presents for a diagnostic workup with a metabolic specialist within 24 to 48 hours.
4. Coordinating collection and processing of diagnostic tests and communicating test results to provider and short-term follow-up program (STFU).
5. Communicating with STFU if the above timelines are not met.

Table 1. In-range FAOD Screen Results[1]:

DISORDER	Primary Analyte (µmol/L)	Secondary Analyte (µmol/L)	DISORDER	Primary Analyte (µmol/L)	Secondary Analyte (µmol/L)
CUD	C0 > 5.5	NA	VLCAD	C14:1 < 0.70	C14 < 0.71
SCAD & GAII	C4 < 1.27	C4/C2 ratio < 0.06			C16 < 7.46
CACT & CPTII	C16 < 7.46	C18 <2.15	MCAD & MCAT	C8 < 0.40	C8/C10 ratio < 3.0
	C18:1 < 3.0	C18:2 < 2.4			C6 < 0.25
CPT1	C0 < 64.0	C0/(C16+C18) < 90			C10 < 0.40
LCHAD/TFP	C16OH < 0.16	C16:1OH < 0.47			C10:1 < 0.30
	C18:1 OH < 0.15	C18 OH < 0.12			C8/C10 ratio < 3.00

[1] These values are utilized for newborns less than 60 days old.
[2] Elevations of the secondary analytes are reported as "not consistent with FAOD" if primary analyte is in range in-range.