Clinical suspicion of a mosquito-borne disease (MBD) based on the following:

- Symptoms including, but not limited to:
  - Fever
  - Headache
  - Meningitis
  - Encephalitis
  - Meningoencephalitis
- Time of year (e.g., during active mosquito seasons)
- Exposure history (refer to the following for potential exposure guidance):

Testing should be tailored based on clinical presentation, exposure history, and known endemic mosquito-borne pathogens.

**Mosquito-borne Disease Laboratory Testing**

- Real-time reverse transcription PCR and serologic testing are recommended.
- Serologic testing of spinal fluid (CSF) should be performed concurrently with or following serologic testing of serum.
- If mosquito exposure occurred within the United States (US), consider the following tests:
  - ARBO / Arbovirus Antibody Panel, IgG and IgM, Serum
  - ABOPC / Arbovirus Antibody Panel, IgG and IgM, Spinal Fluid
  - CAVPC / California Virus (La Crosse) Encephalitis Antibody Panel, IgG and IgM, Spinal Fluid
  - CAVP / California Virus (La Crosse) IgG and IgM, Serum
  - EEPC / Eastern Equine Encephalitis Antibody Panel, IgG and IgM, Spinal Fluid
  - EEEP / Eastern Equine Encephalitis Antibody, IgG and IgM, Serum
  - STLPC / St. Louis Encephalitis Antibody Panel, IgG and IgM, Spinal Fluid
  - STLP / St. Louis Encephalitis Antibody, IgG and IgM, Serum
  - WEEP / Western Equine Encephalitis Antibody, IgG and IgM, Spinal Fluid
  - WEEPC / Western Equine Encephalitis Antibody Panel, IgG and IgM, Spinal Fluid
  - CAVP / California Virus (La Crosse) IgG and IgM, Serum
  - CAVPC / California Virus (La Crosse) Encephalitis Antibody Panel, IgG and IgM, Spinal Fluid
  - EEPC / Eastern Equine Encephalitis Antibody Panel, IgG and IgM, Serum
  - EEEP / Eastern Equine Encephalitis Antibody, IgG and IgM, Serum
  - STLPC / St. Louis Encephalitis Antibody Panel, IgG and IgM, Spinal Fluid
  - STLP / St. Louis Encephalitis Antibody, IgG and IgM, Serum
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  - STLP / St. Louis Encephalitis Antibody, IgG and IgM, Serum
  - WEEP / Western Equine Encephalitis Antibody, IgG and IgM, Serum
  - WEEPC / Western Equine Encephalitis Antibody Panel, IgG and IgM, Spinal Fluid
- Serologic testing is recommended if mosquito exposure occurred within the United States (US), consider the following tests:
  - CHIKV / Chikungunya IgM and IgG Antibody, Serum
  - CHIK / Chikungunya Virus, PCR, Molecular Detection, Serum
  - CHIKC / Chikungunya Virus, PCR, Molecular Detection, Spinal Fluid
  - DENG / Dengue Virus Antibody, IgG and IgM, Serum
  - DENV / Dengue Virus Antibody/Antigen Panel, Serum
  - DNSAG / Dengue Virus NS1 Antigen, Serum
  - DENGs / Dengue Virus, Molecular Detection, PCR, Serum
  - DENGc / Dengue Virus, Molecular Detection, PCR, Spinal Fluid
  - MZIKV / Zika Virus IgM Antibody Capture MAC-ELISA, Serum
  - RZIKU / Zika Virus, PCR, Molecular Detection, Random, Urine
  - RZIKS / Zika Virus, PCR, Molecular Detection, Serum
- If mosquito exposure occurred in any region, consider the following tests:
  - WNVP / West Nile Virus (WNV), Molecular Detection, PCR, Plasma
  - WNS / West Nile Virus Antibody, IgG and IgM, Serum
  - WNC / West Nile Virus Antibody, IgG and IgM, Spinal Fluid
  - LCWNV / West Nile Virus, Molecular Detection, PCR, Spinal Fluid
  - MZIKV / Zika Virus IgM Antibody Capture MAC-ELISA, Serum
  - PNZIK / Prenatal Zika IgM Antibody Capture MAC-ELISA, Serum
- If mosquito exposure occurred in any region, consider the following tests:
  - WNS / West Nile Virus Antibody, IgG and IgM, Serum
  - WNC / West Nile Virus Antibody, IgG and IgM, Spinal Fluid

**Algorithm for information**

- Laboratory Testing
- Refer to the Malaria Laboratory Testing Algorithm for information
- If FIL is negative, consider:
  - Order: FFAG4 / Filaria, IgG4
  - If FIL is positive, consider:
      - Order: FIL / Filaria, Blood Antibody, ELISA
- If any of the following are suspected, contact your local public health department or the CDC for testing options:
  - Powassan virus
  - Jamestown Canyon virus
  - Heartland virus
  - Bourbon virus

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