If a conflict arises between a Clinical Payment and Coding Policy and any plan document under which a member is entitled to Covered Services, the plan document will govern. If a conflict arises between a CPCP and any provider contract pursuant to which a provider participates in and/or provides Covered Services to eligible member(s) and/or plans, the provider contract will govern. "Plan documents" include, but are not limited to, Certificates of Health Care Benefits, benefit booklets, Summary Plan Descriptions, and other coverage documents. Blue Cross and Blue Shield of Oklahoma may use reasonable discretion interpreting and applying this policy to services being delivered in a particular case. BCBSOK has full and final discretionary authority for their interpretation and application to the extent provided under any applicable plan documents.

Providers are responsible for submission of accurate documentation of services performed. Providers are expected to submit claims for services rendered using valid code combinations from Health Insurance Portability and Accountability Act approved code sets. Claims should be coded appropriately according to industry standard coding guidelines including, but not limited to: Uniform Billing Editor, American Medical Association, Current Procedural Terminology, CPT® Assistant, Healthcare Common Procedure Coding System, ICD-10 CM and PCS, National Drug Codes, Diagnosis Related Group guidelines, Centers for Medicare and Medicaid Services National Correct Coding Initiative Policy Manual, CCI table edits and other CMS guidelines.

Claims are subject to the code edit protocols for services/procedures billed. Claim submissions are subject to claim review including but not limited to, any terms of benefit coverage, provider contract language, medical policies, clinical payment and coding policies as well as coding software logic. Upon request, the provider is urged to submit any additional documentation.

Testing for Vector-Borne Infections

Policy Number: CPCPLAB052

Version 1.0

Approval Date: October 30, 2024

Plan Effective Date: January 15, 2025

Description

BCBSOK has implemented certain lab management reimbursement criteria. Not all requirements apply to each product. Providers are urged to review Plan documents for eligible coverage for services rendered.

Reimbursement Information

For Lyme disease and testing for *Borrelia burgdorferi*, please see CPCPLAB044 Lyme Disease Testing.

1) For individuals suspected of having babesiosis (see **Note 1**), the use of a Giemsa- or Wright-stain of a blood smear **or** nucleic acid amplification testing (NAAT) **may be reimbursable.**

2) For individuals suspected of having babesiosis (see **Note 1**), the use of either an IgG or IgM indirect immunofluorescence antibody (IFA) assay for Babesia **is not reimbursable.**

3) For individuals suspected of having a relapsing fever caused by a *Borrelia* spp., the following testing **may be reimbursable**:

    a. For individuals suspected of having hard tick relapsing fever (HTRF) (see Note 2): serologic assays to detect *Borrelia* antibodies or PCR testing to detect *Borrelia miyamotoi*.

    b. For individuals suspected of having louse-borne relapsing fever (LBRF) (see Note 3): peripheral blood smear microscopy or PCR testing to detect *Borrelia recurrentis*.

    c. For individuals suspected of having a soft tick relapsing fever (STRF)/tickborne relapsing fever (TBRF) (see Note 4): dark-field microscopy of a peripheral blood smear, microscopy of a Wright- or Giemsa-stained blood smear, PCR testing to detect *Borrelia* spp., or serologic assays to detect *Borrelia* antibodies.

4) For individuals suspected of having a relapsing fever caused by a *Borrelia* spp., culture testing for *Borrelia* **is not reimbursable.**

5) For individuals suspected of having chikungunya (see **Note 5**), the use of viral culture for diagnosis, NAAT for the presence of chikungunya in a serum sample, **or** IFA assay for IgM antibodies during both the acute and convalescent phases **may be reimbursable.**

6) For individuals suspected of having Colorado tick fever (CTF) (see **Note 6**), the use of PCR testing **or** IFA for CTF-specific IgM antibodies **may be reimbursable.**

7) For the detection of dengue virus (DENV), the use of NAAT, IgM antibody capture ELISA (MAC-ELISA), **or** NS1 ELISA, as well as a confirmatory plaque reduction neutralization test for DENV, **may be reimbursable** in the following individuals:

    a. For individuals suspected of having a DENV infection (see **Note 7**).
    b. For individuals who are symptomatic for Zika virus infection (see **Note 8**).

8) For individuals suspected of having DENV (see **Note 7**), the use of IgG ELISA **or** hemagglutination testing **is not reimbursable.**

9) For individuals suspected of having ehrlichiosis and/or anaplasmosis (see **Note 8**), the use of NAAT of whole blood, IFA assay for IgG antibodies, **or** microscopy for morulae detection **may be reimbursable.**

10) For individuals suspected of having ehrlichiosis and/or anaplasmosis (see **Note 8**), the use of an IFA assay for IgM antibodies **or** standard blood culture **is not reimbursable.**

11) For individuals suspected of having malaria (see **Note 10**), the use of a rapid immunochromatographic diagnostic test **or** smear microscopy to diagnose malaria, determine the species of *Plasmodium*, identify the parasitic life-cycle stage, and/or quantify the parasitemia (can be repeated up to three times within three days if initial microscopy is negative in suspected cases of malaria) **may be reimbursable.**

12) To confirm the species of *Plasmodium* in an individual diagnosed with malaria, PCR testing **may be reimbursable.**

13) For individuals suspected of having malaria (see **Note 10**), the use of IFA for *Plasmodium* antibodies **is not reimbursable.**

14) For individuals suspected of having a rickettsial disease (see **Note 11**), the use of an IFA assay for IgG antibodies (limited to two tests occurring a minimum of two weeks apart) **may be reimbursable.**

15) For individuals suspected of having a rickettsial disease (see **Note 11**), the use of standard blood culture, **or** IFA assay for IgM antibodies **is not reimbursable.**

16) For individuals suspected of having West Nile virus (WNV) disease (see **Note 12**), the use of IFA for WNV-specific IgG or IgM antibodies in either serum or CSF and a confirmatory plaque reduction neutralization test for WNV **may be reimbursable.**

17) To confirm a WNV infection in individuals who are immunocompromised, nucleic acid detection of WNV **may be reimbursable.**

18) For immunocompetent individuals suspected of having WNV disease (see **Note 12**), the use of NAAT for WNV **is not reimbursable.**

19) For individuals suspected of having a yellow fever virus (YFV) infection (see **Note 13**), the use of NAAT for YFV **or** serologic assays to detect virus-specific IgM and IgG antibodies, as well as a confirmatory plaque reduction neutralization test for YFV, **may be reimbursable.**

20) For the detection of Zika virus, the use of NAAT **may be reimbursable** in the following individuals:

    a. Up to 12 weeks after the onset of symptoms for symptomatic (see **Note 8**) pregnant individuals who, during pregnancy, have **either** lived in or traveled to areas with a current or past Zika transmission **or** who have had sex with someone who either lives in or has recently traveled to areas with a current or past Zika virus transmission (see **Note 14**).
    b. For symptomatic non-pregnant individuals living in or with recent travel to an area with an active CDC Zika Travel Health Notice or an area with current or past Zika transmission (**See Note 14**) when symptoms presented within the last seven days.

21) Zika virus NAAT and Zika virus IgM testing, as well as a confirmatory plaque reduction neutralization test for Zika, **may be reimbursable** in **any** of the following situations:
    a. Up to 12 weeks after the onset of symptoms for symptomatic (**See Note ***) pregnant individuals who, during pregnancy, have **either** lived in or traveled to areas with an active CDC Zika Travel Health Notice **or** who have had sex with someone who either lives in or has recently traveled to areas with an active CDC Zika Travel Health Notice (**See Note 14**).

b. For pregnant individuals who have a fetus with prenatal ultrasound findings consistent with congenital Zika virus infection (**See Note 15**).
c. For infants born from individuals who, during pregnancy, tested positive for Zika virus.
d. For infants born with signs and symptoms of congenital Zika syndrome (see **Note 15**) and who have a birthing parent who had a possible Zika virus exposure during pregnancy.
e. For symptomatic non-pregnant individuals living in or with recent travel to an area with an active CDC Zika Travel Health Notice or an area with current or past Zika virus transmission (**See Note 14)** when symptoms presented more than seven days prior to testing.

22) For non-pregnant individuals who have not traveled outside of the United States and its territories and who are symptomatic for Zika virus infection (see **Note 8**), NAAT and/or IgM testing for Zika detection **is not reimbursable**.

23) For asymptomatic individuals, testing for babesiosis, chikungunya virus, CTF, DENV, ehrlichiosis and/or anaplasmosis, malaria, rickettsial disease, TBRF, WNV, YFV, or Zika virus during a general exam without abnormal findings **is not reimbursable.**

NOTES:

Note 1: Typical signs and symptoms of babesiosis can include hemolytic anemia, splenomegaly, hepatomegaly, jaundice, and nonspecific flu-like symptoms such as fever, chills, body aches, weakness, and fatigue (CDC, 2024j).

Note 2: Typical signs and symptoms of HTRF (caused by *Borrelia miyamotoi*) can include chills or shakes, fatigue, nausea or vomiting, headache, and muscle and joint aches (CDC, 2024a).

Note 3: Typical signs and symptoms of LBRF (caused by *Borrelia recurrentis*) can include fever, headache, chills or shakes, muscle and joint aches, and nausea. Though the clinical symptoms of LBRF are similar to STRF, LBRF is usually associated with fewer relapses (CDC, 2024b)

Note 4: Typical signs and symptoms of STRF/TBRF (caused by *Borrelia hermsii*, *B. turicatae,* and other *Borrelia* bacteria) can include fever, headache, muscle aches, chills, dizziness, joint pain, nausea and vomiting, appetite loss, and rarely, facial paralysis eye pain or redness, or vision changes (CDC, 2024c)

Note 5: Typical signs and symptoms of chikungunya include high fever (>102◦F or 39◦C), joint pains (usually multiple joints, bilateral, and symmetric), headache, myalgia, arthritis, conjunctivitis, nausea, vomiting, and maculopapular rash (Staples et al., 2024).

Note 6: Typical signs and symptoms of CTF can include fever, chills, headache, myalgia, malaise, sore throat, vomiting, abdominal pain, and maculopapular or petechial rash (CDC, 2024e).

Note 7: Typical signs and symptoms of dengue include fever, headache, retro-orbital eye pain, myalgia, arthralgia, macular or maculopapular rash, petechiae, ecchymosis, purpura, epistaxis, gingival bleeding, hematuria, leukopenia, thrombocytopenia, hyponatremia, elevated AST and ALT, and nausea and/or vomiting (CDC, 2024f, 2024r).

Note 8: Typical signs and symptoms of Zika virus infection can include fever, rash, headache, joint pain, conjunctivitis (red eyes), and muscle pain (CDC, 2024t).

Note 9: Typical signs and symptoms of ehrlichiosis and/or anaplasmosis usually begin 5-14 days after an infected tick bite, and they include fever, headache, malaise, myalgia, and shaking chills. Ehrlichiosis can also present with gastrointestinal issues, including nausea, vomiting, and diarrhea (Biggs et al., 2016).

Note 10: Typical signs and symptoms of malaria can include fever, influenza-like symptoms (e.g., chills, headache, body aches), anemia, jaundice, seizures, mental confusion, kidney failure, and acute respiratory distress syndrome Tan & Abanyie, 2024).

Note 11: Typical signs and symptoms of rickettsial diseases (including Rocky Mountain spotted fever, *Rickettsia parkeri* rickettsiosis, *Rickettsia* species 364D rickettsiosis, *Rickettsia* spp (mild spotted fever), and *R. akari* (rickettsialpox)) usually begin 3 – 12 days after initial bite and can include fever, headache, chills, malaise, myalgia, nausea, vomiting, abdominal pain, photophobia, anorexia, and skin rash. *Rickettsia* species 364d rickettsiosis can also present with an ulcerative lesion with regional lymphadenopathy (Biggs et al., 2016).

Note 12: Typical signs and symptoms of West Nile Virus (WNV) include headache, myalgia, arthralgia, gastrointestinal symptoms, and maculopapular rash. Less than 1% of infected individuals develop neuroinvasive WNV with symptoms of meningitis, encephalitis, or acute flaccid paralysis (Nasci et al., 2013).

Note 13: Typical signs and symptoms of yellow fever include symptoms of the toxic form of the disease (jaundice, hemorrhagic symptoms, and multisystem organ failure), as well as nonspecific influenza symptoms (fever, chills, headache, backache, myalgia, prostration, nausea, and vomiting in initial illness) (Gershman & Staples, 2024).

Note 14: The CDC provides information on the geographic risk classification of Zika (https://www.cdc.gov/zika/geo/index.html) as well as providing travel health notices for pathogens of concern (https://www.nc.cdc.gov/travel/notices).

Note 15: Typical signs and symptoms of congenital Zika syndrome can include microcephaly, problems with brain development, feeding problems (e.g., difficulty swallowing), hearing loss, seizures, vision problems, decreased joint movement (i.e., contractures), and stiff muscles (making it difficult to move) (CDC, 2024n).

Procedure Codes

The following is not an all-encompassing code list. The inclusion of a code does not guarantee it is a covered service or eligible for reimbursement.

Codes
86280, 86382, 86619, 86666, 86750, 86753, 86757, 86788, 86789, 86790, 86794, 87040 87207, 87449, 87468, 87469, 87478, 87484, 87662, 87798, 87899, 0043U, 0044U

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Policy Update History

Approval Date	Effective Date; Summary of Changes
10/30/2024	01/15/2025: Document updated with literature review. The following changes were made to Reimbursement Information: Editing made for clarity/consistency. Former #3, now #5. Former #5a, now #7a. Former #17, now #19; former #13 and #14 become #3 and #4 and have been reorganized to discuss the recommended testing for relapsing fevers caused by Borrelia spp. #3 and #4 now read: "3) For individuals suspected of having a relapsing fever caused by a Borrelia spp., the following testing may be reimbursable: a) For individuals suspected of having hard tick relapsing fever (HTRF) (see Note 2): serologic assays to detect Borrelia antibodies or PCR testing to detect Borrelia miyamotoi. b) For individuals suspected of having louse-borne relapsing fever (LBRF) (see Note 3): peripheral blood smear microscopy or PCR testing to detect Borrelia recurrentis. c) For individuals suspected of having a soft tick relapsing fever (STRF)/tickborne relapsing fever (TBRF) (see Note 4): dark-field microscopy of a peripheral blood smear, microscopy of a Wright- or Giemsa-stained blood smear, PCR testing to detect Borrelia spp., or serologic assays to detect Borrelia antibodies. 4) For individuals suspected of having a relapsing fever caused by a Borrelia spp., culture testing for Borrelia is not reimbursable." #6: Testing indications for Colorado tick fever updated to include PCR testing. #7b, formerly #5b, updated from "non-pregnant individuals" to "individuals", as CDC guideline updates indicate that all individuals with signs/symptoms of Zika should be tested for DENV. Now reads: "b) For individuals who are symptomatic for Zika virus infection (see Note 8)." New #12: "12) To confirm the species of Plasmodium in an individual diagnosed with malaria, PCR testing may be reimbursable." Results in a change to former #10, now #13, which

	did not allow NAAT for Plasmodium. Now reads: “13) For individuals suspected of having malaria (see Note 10), the use of IFA for Plasmodium antibodies is not reimbursable.” Former #11, now #14, changed “limit to two units” to “two tests occurring a minimum of two weeks apart”. Now reads: “14) For individuals suspected of having a rickettsial disease (see Note 11), the use of an IFA assay for IgG antibodies (two tests occurring a minimum of two weeks apart) may be reimbursable. Former #15, now #16, added IFA for IgG as an allowed test. Now reads: “16) For individuals suspected of having West Nile virus (WNV) disease (see Note 12), the use of IFA for WNV-specific IgG or IgM antibodies in either serum or CSF and a confirmatory plaque reduction neutralization test for WNV may be reimbursable.” New #17: “17) To confirm a WNV infection in individuals who are immunocompromised, nucleic acid detection of WNV may be reimbursable.” Former #16 is now #18 and reads: “18) For immunocompetent individuals suspected of having WNV disease (see Note 12), the use of NAAT for WNV is not reimbursable.” Former #18, #19, and #20, now #20, #21, and #22, edited based on CDC guideline updates for Zika virus testing recommendations. Now read: “20) For the detection of Zika virus, the use of NAAT may be reimbursable in the following individuals: a) Up to 12 weeks after the onset of symptoms for symptomatic (see Note 8) pregnant individuals who, during pregnancy, have either lived in or traveled to areas with current or past Zika transmission or who have had sex with someone who either lives in or has recently traveled to areas with current or past Zika virus transmission (see Note 14). b) For symptomatic non-pregnant individuals living in or with recent travel to an area with an active CDC Zika Travel Health Notice or an area with current or past Zika virus transmission (see Note 14) when symptoms presented within the last seven days. #21) Zika virus NAAT and Zika virus IgM testing, as well as a confirmatory plaque reduction neutralization test for Zika, may be reimbursable in any of the following situations: a) Up to 12 weeks after the onset of symptoms for symptomatic (see Note 8) pregnant individuals who, during pregnancy, have either lived in or traveled to areas with an active CDC Zika Travel Health Notice or who have had sex with someone who either lives in or has recently traveled to areas with an active CDC Zika Travel Health Notice (see Note 14). b) For pregnant individuals who have a fetus with prenatal ultrasound findings consistent with congenital Zika virus infection (see Note 15). c) For infants born from individuals who, during pregnancy, tested positive for Zika virus. d) For infants born with signs and symptoms of congenital Zika syndrome (see Note 15) and who have a birthing parent who had a possible Zika virus exposure during pregnancy. e) For symptomatic non-pregnant individuals living in or with recent travel to an area with an active CDC Zika Travel Health Notice or an area with current or past Zika virus transmission (see Note 14) when symptoms presented more than seven days prior to testing. #22) For non-pregnant individuals who have not traveled outside of the United States and its territories and who are symptomatic for Zika virus infection (see Note 8), NAAT and/or IgM testing for Zika detection is not reimbursable. Added new Note 2 and Note 3 to

	define signs/symptoms of HTRF and LBRF, Note 9 becomes Note 4, defines STRF/TBRF. Former Note 4, now Note 7, edited to update signs and symptoms. Former Note 9, now Note 4, updated name from TBRF to STRF/TBRF, updated causative pathogens, updated signs and symptoms. Former Note 12, now Note 14, updated with CDC classifications of Zika risk. References revised
11/01/2023	11/01/2023: Document updated with literature review. The following changes were made to Reimbursement Information: revised section completely to be in alphabetical order based on infection name. Moved language for Zika Virus from CPCPLAB042 ZIKA Virus Risk Assessment to this document. Added 18-21 for Zika virus. Notes related to infections updated as needed and reorganized. Title changed from Testing for Mosquito-or Tick-Related Infections. References revised.
08/15/2023	08/15/2023: Document updated with literature review. Reimbursement information revised for clarity; signs and symptoms for each disease added to Notes referenced in each position statement. References revised.
11/1/2022	11/01/2022: New policy