November 2023

SONIC HEALTHCARE USA

Client Communication

Medicare Local Coverage Determination Policy: CGS

Coverage Policy

L39038 - MolDX: Molecular Syndromic Panels for Infectious Disease Pathogen Identification Testing

CPT: 87631, 87636, 87637, 0240U, 0241U, 87505, 87483, 87154, 81513, 81514, 87623, 87624, 87625, 87800, 87801, 87632, 87633, 0115U, 0151U, 0202U, 0223U, 0225U, 87506, 87507, 0097U

Revision Effective Date: 05/04/2023

Coverage Indications, Limitations, and/or Medical Necessity

This policy provides limited coverage for outpatient testing with molecular syndromic panels for infectious disease pathogen identification testing. This policy does NOT address coverage for the inpatient setting.

This policy defines a panel as a test that detects > 1 pathogen. This policy also differentiates (where appropriate) between small, targeted panels (up to 5 pathogens) and larger, expanded panels (≥6 pathogens). This distinction is *primarily* applied to the Respiratory and Gastrointestinal Panels. A 'syndromic panel' is further defined as one that simultaneously detects multiple different pathogens associated with similar and overlapping clinical symptomatology.

This is NOT a coverage policy for metagenomic next-generation sequencing, mass spectrometry, or fluorescence in situ hybridization (FISH).

General Criteria For Coverage For A Molecular Syndromic Infectious Disease Pathogen Identification Panel Test

This Medicare Contractor will cover molecular syndromic infectious disease pathogen identification panel tests when ALL of the following criteria are met:

- The patient has a clinical indication for infectious disease *testing*:
    - For immunocompetent patients, the clinical indication includes a presumption of active infection OR infection-associated complications (which may include exacerbation of underlying disease) *that require the identification of a causative organism for appropriate management.* Atypical clinical presentations of disease are considered appropriate indications for special populations who may not present with classic symptoms of infection (i.e., the elderly).

  - For immunocompromised patients (i.e., those with weakened immune systems including those with human immunodeficiency virus (HIV) or acquired immunodeficiency syndrome (AIDS), patients who are taking immunosuppressive medications (i.e., chemotherapy, biologics, transplant-related immunosuppressive drugs, high-dose systemic corticosteroids) and those with inherited diseases that affect the immune system (i.e., congenital immunoglobulin deficiencies), atypical clinical presentations of disease are considered appropriate indications for testing. In this patient population, testing may be performed ONCE as part of a pre-transplant evaluation, regardless of the presence of symptoms.
  - **Note:** For certain panels, such as the Urogenital/Anogenital Panel, epidemiologic indication or potential exposure to pathogens as a result of a high-risk experience is considered a covered clinical indication, even in the absence of clinical symptoms. These are specifically noted below in **LIMITED COVERAGE FOR *EXPANDED* (>5 Pathogens) PANEL TESTING**.

- The results of testing will impact clinical management in a manner already demonstrated in the peer-reviewed published literature to improve patient outcomes.
- Testing is performed according to the intended use of the test in the intended patient population for which the test was developed and validated.
  - This includes performing the test using the intended sample types along with parallel testing that must accompany the test (i.e., the meningoencephalitis and bloodstream pathogen tests include requirements for parallel testing using conventional Gram stain and culture-based detection for correlation of results).
  - This also includes the provision - by the laboratory to ordering providers - of the major limitations of a given panel test.
- An evaluation for more than 1 pathogen by molecular testing is necessary for patient management (testing for a single pathogen is NOT reasonable and necessary for the specific infection, patient, or indication). The panel performed includes *at least* the minimum pathogens required for clinical decision making for its intended use that can be reasonably detected by the test.
- Expanded panel testing is only indicated when targeted panel testing is not appropriate (i.e., will not provide sufficient information for the appropriate clinical management of the patient). See **LIMITED COVERAGE FOR *EXPANDED* (>5 Pathogens) PANEL TESTING** below.
- Services that do not have Food and Drug Administration (FDA)-cleared/approved indicated uses, as well as FDA-approved tests performed in ways not consistent with their intended-use labeling directions, will require registration with Molecular Diagnostic Services Program (MolDX®) and a Technical Assessment (TA) to demonstrate compliance of the service with this policy. Similarly, tests (and CPT codes) for which there are no

accompanying ICD-10 codes in the associated Billing and Coding Article will require registration with MolDX® and a TA to demonstrate compliance of the service with this policy.

- Registered tests must demonstrate equivalent or superior test performance characteristics - analytical validity (AV) and clinical validity (CV) - to established standard-of-care (SOC) methods (i.e., culture, pathogen-specific polymerase chain reaction [PCR]) *for the majority of targets included on the panel*.
    - CV of any new organisms and analytes that are not already established as SOC or that do not have a predicate test that is covered by this contractor, must be established through a study published in the peer-reviewed literature for the intended use of the test in the intended population.
- Documentation of the following is clearly stated in the medical record:
    - Specific clinical indications for testing (i.e., clinical suspicion of a pathogen as the cause of the patient's condition)
    - Specific reasons for performing panel testing
    - Provider type/specialty and Place of Service
- Testing must be performed according to Clinical Laboratory Improvement Amendments (CLIA) and/or FDA regulations. For example, CLIA-non-waived tests may only be performed in certified laboratories and according to CLIA regulations. CLIA-waived tests may be performed in healthcare settings that operate under a CLIA Certificate of Waiver or Certificate of Compliance/Certificate of Accreditation. Panels intended for home use (including those that have been FDA approved or cleared) do NOT meet the coverage criteria of this policy.

Non-Coverage Criteria

Molecular Syndromic Panel Tests will NOT be covered in the following circumstances:

- If the test is performed as a test of cure.
- If the patient has been previously tested by molecular diagnostic methods for the same pathogens within 14 days for the same clinical indication.
    - If a previous panel test was performed with a similar/duplicative intended use, a subsequent test is only reasonable and necessary if the non-duplicative content of the second test is reasonable and necessary.
    - Exception: Repeat panel testing for the same clinical indication will only be covered if first panel yielded a negative result AND there is a high index of suspicion for a pathogen as the cause of symptoms AND the patient's clinical condition is not improving or is deteriorating after a clinically

appropriate length of time. In such cases, 1 additional panel test may be covered between 1 and 14 days *after* the initial panel test, so long as the test fulfills the criteria for coverage as set forth in this policy.

LIMITED COVERAGE FOR *EXPANDED* (>5 Pathogens) PANEL TESTING

FOR THE SPECIFIC PANEL TYPES LISTED BELOW, ALL OF THE FOLLOWING *ADDITIONAL* CRITERIA MUST BE MET:

- **Respiratory (RP) and Pneumonia (PNP) Panels** will only be covered when targeted testing is not appropriate AND according to the following additional criteria:
    - For immune-competent patients, at least 1 of the following must apply:
        - Testing is ordered by a clinician specialist in Infectious Diseases or Pulmonology for a patient with severe and established underlying respiratory pathology (i.e., severe asthma, chronic obstructive pulmonary disease (COPD), cystic fibrosis, pulmonary fibrosis, radiation therapy to the lung) AND treatment with antibiotics may be indicated according to established guidelines.[1,2] Specific examples that do NOT meet coverage criteria according to established guidelines include the following:
            - Asthma exacerbations without the additional presence of either fever and purulent sputum or radiographic evidence of pneumonia[2]
            - Uncomplicated community acquired pneumonia (CAP)[1]
        - The patient is seriously or critically ill or at imminent risk of becoming seriously or critically ill (as defined by the American Hospital Association's "General Guide for the Release of Information on the Condition of Patients")[3] as a result of a presumed respiratory infection AND the patient is being treated in an appropriate critical care facility.
    - For immune-suppressed patients: Testing is ordered by a clinician specialist in 1 of the following: Infectious Diseases, Pulmonology, Oncology, Transplant OR the patient is being managed in an appropriate critical care facility.
    - For ALL patients: Only 1 of the following panels - RP **OR** PNP- will be covered for a given patient for the same clinical indication. The PNP should be prioritized in the evaluation of pneumonia from lower respiratory tract specimens (i.e., bronchoalveolar lavage samples [BALs]). For the purposes of repeat panel testing for the same clinical indication, RP and PNP will be considered as equivalent tests, such that if criteria for repeat testing are met (as defined above), a clinician may choose to perform the repeat test using the PNP, even if the original test was performed using the RP.

- For ALL patients, exceptions to the limitation on medical specialists who can order expanded panel tests are provided in the accompanying Billing and Coding Article, such that patient geography and access to care do not preclude the receipt of appropriate diagnostic testing when indicated.

- **Gastrointestinal (GI) Panels** will only be covered when targeted testing is not appropriate AND according to the following additional criteria:
  - For immune-competent patients, at least 1 of the following must apply:
    - Testing is ordered by a clinician specialist in Infectious Diseases or Gastroenterology for a patient with severe and established underlying GI pathology (i.e., inflammatory bowel disease (IBD), paralytic ileus, radiation therapy to the intestine) AND identification of an infectious cause is necessary to determine next steps in patient management.
    - The patient is seriously or critically ill or at imminent risk of becoming seriously or critically ill (as defined by the American Hospital Association's "General Guide for the Release of Information on the Condition of Patients")[3] as a result of a presumed GI infection AND the patient is being treated in an appropriate critical care facility.
    - The patient's clinical indication for GI panel testing is diarrhea, and ALL of the following apply:
      - The diarrheal illness MUST be acute or persistent with signs or risk factors for severe disease (i.e., fever, bloody diarrhea, dysentery, dehydration, severe abdominal pain) that may warrant hospitalization AND/OR
      - The diarrheal illness is not resolving after 7 days AND the patient has NOT taken laxatives within 24 hours of the test.
  - For immune-suppressed patients:
    - Testing is ordered by a clinician specialist in 1 of the following: Infectious Diseases, Gastroenterology, Oncology, Transplant OR the patient is being managed in an appropriate critical care facility.
  - For ALL patients, exceptions to the limitation on medical specialists who can order expanded panel tests are provided in the accompanying Billing and Coding Article, such that patient geography and access to care do not preclude the receipt of appropriate diagnostic testing when indicated.

- **Urogenital/Anogenital (UG/AG) Panels**
  - For the UG/AG panels, epidemiologic indication or potential exposure to sexually transmitted pathogens (i.e., in the case of clinical concern for multiple sexually transmitted infections (STIs) due to

a high-risk experience) is considered a covered clinical indication, even in the absence of clinical symptoms. Documentation of the high-risk reason for panel testing is clearly stated in the medical record.

  - In the absence of a high-risk experience, if the primary clinical concern is for a few specific pathogens due to specific signs and symptoms (i.e., lesions suggestive of herpes simplex virus [HSV]), then it is expected that only a small targeted panel (i.e., including HSV-1 and HSV-2) will be performed. In such cases, expanded panels are NOT considered reasonable and necessary and will NOT be covered.
  - For the diagnosis of infectious vaginosis/vaginitis, it is reasonable to perform a (targeted or expanded) panel that includes a combination of at least 2 of the following: *Gardnerella vaginalis,* other bacterial vaginosis (BV)-associated bacteria (BVAB) (such as *Atopobium vaginae* and/or *Megasphaera types), Trichomonas vaginalis,* and *Candida* species.
- **Meningoencephalitis (ME) Panels** will be covered according to the following additional criteria:
  - For immune-competent patients: the patient has at least 2 of the following indicators of central nervous system (CNS) infection: cerebrospinal fluid (CSF) markers, radiology, clinical signs and symptoms consistent with meningitis or encephalitis, epidemiologic indication or exposure. For immune-compromised patients, at least 1 of these indicators is required.
  - For all patients: Testing is from a sample collected via lumbar puncture, and NOT an indwelling medical device (i.e., CSF shunts).
- **Bloodstream Infection (BSI) Panels** will be covered according to the following additional criteria:
  - There is clinical concern for bacteremia or sepsis AND microbe(s) were seen on a Gram stain from the patient's blood AND the patient is being managed in an appropriate critical care facility (this includes the Emergency Room), AND
  - Personnel (i.e., an antimicrobial stewardship team [ASP]) are equipped for rapid (within 24 hours) tailoring of antimicrobial therapy as a result of rapid testing.
- **Urinary Tract Infection (UTI) Panels** will be covered according to the following additional criteria:
  - The patient is symptomatic AND at higher risk for UTI complications (i.e., the elderly, patients with recurrent symptomatic UTIs and/or complicated urinary tract anatomy) AND/OR is seen in urogynecology or urology specialty care settings.

Additional information related to specific panels may be found in the related Billing and Coding article.

Tests that demonstrate similar indicated uses and equivalent or superior performance to SOC or other covered tests, as demonstrated in a TA, may similarly be covered under this policy.

Additional syndromic panel types and indications may also be covered according to the established criteria outlined in this policy.

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The ICD10 codes listed below are the top 40 diagnosis codes Sonic most commonly receives from ordering physicians for this limited-coverage test. Medicare supports provider utilization of all the diagnosis codes listed below, except those notated in bold. If you are providing a diagnosis code that is bolded below, please submit a valid ABN form with the order. To view the complete policy and the full list of medically supported diagnosis codes, please refer to the CMS website for guidance: https://www.cms.gov/medicare-coverage-database/search.aspx

Code	Description
Z01.419	**Encounter for gynecological examination (general) (routine) without abnormal findings**
Z11.51	**Encounter for screening for human papillomavirus (HPV)**
Z12.4	**Encounter for screening for malignant neoplasm of cervix**
R87.810	**Cervical high risk human papillomavirus (HPV) DNA test positive**
R19.7	Diarrhea, unspecified
N76.0	Acute vaginitis
I10	**Essential (primary) hypertension**
J06.9	Acute upper respiratory infection, unspecified
R05.9	**Cough, unspecified**
N89.8	**Other specified noninflammatory disorders of vagina**
Z01.411	**Encounter for gynecological examination (general) (routine) with abnormal findings**
R19.5	Other fecal abnormalities
Z12.72	**Encounter for screening for malignant neoplasm of vagina**
R87.612	**Low grade squamous intraepithelial lesion on cytologic smear of cervix (LGSIL)**
N76.89	Other specified inflammation of vagina and vulva
E78.5	**Hyperlipidemia, Unspecified**
K92.1	Melena
E78.2	**Mixed Hyperlipidemia**
J01.90	**Acute sinusitis, unspecified**
T47.8X5A	**Adverse effect of other agents primarily affecting gastrointestinal system, initial encounter**
B37.31	**Acute candidiasis of vulva and vagina**

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N95.0	**Postmenopausal bleeding**
J18.9	Pneumonia, unspecified organism
R87.610	**Atypical squamous cells of undetermined significance on cytologic smear of cervix (ASC-US)**
J20.9	Acute bronchitis, unspecified
H66.90	**Otitis media, unspecified, unspecified ear**
J44.1	Chronic obstructive pulmonary disease with (acute) exacerbation
N87.0	**Mild cervical dysplasia**
J44.9	Chronic obstructive pulmonary disease, unspecified
R15.9	**Full incontinence of feces**
J81.1	**Chronic pulmonary edema**
R30.0	Dysuria
K21.9	**Gastro-oesophageal reflux disease without oesophagitis**
R87.615	**Unsatisfactory cytologic smear of cervix**
K50.80	**Crohn's disease of both small and large intestine without complications**
Z00.01	**Encounter for general adult medical examination with abnormal findings**
K51.018	Ulcerative (chronic) pancolitis with other complication
A09	Infectious gastroenteritis and colitis, unspecified
K51.90	**Ulcerative colitis, unspecified, without complications**
E03.9	**Hypothyroidism, Unspecified**