Medical Coverage Policy

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Laboratory Testing Services

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INSTRUCTIONS FOR USE

The following Coverage Policy applies to health benefit plans administered by Cigna Companies. Certain Cigna Companies and/or lines of business only provide utilization review services to clients and do not make coverage determinations. References to standard benefit plan language and coverage determinations do not apply to those clients. Coverage Policies are intended to provide guidance in interpreting certain standard benefit plans administered by Cigna Companies. Please note, the terms of a customer's particular benefit plan document [Group Service Agreement, Evidence of Coverage, Certificate of Coverage, Summary Plan Description (SPD) or similar plan document] may differ significantly from the standard benefit plans upon which these Coverage

Policies are based. For example, a customer's benefit plan document may contain a specific exclusion related to a topic addressed in a Coverage Policy. In the event of a conflict, a customer's benefit plan document always supersedes the information in the Coverage Policies. In the absence of a controlling federal or state coverage mandate, benefits are ultimately determined by the terms of the applicable benefit plan document. Coverage determinations in each specific instance require consideration of 1) the terms of the applicable benefit plan document in effect on the date of service; 2) any applicable laws/regulations; 3) any relevant collateral source materials including Coverage Policies and; 4) the specific facts of the particular situation. Each coverage request should be reviewed on its own merits. Medical directors are expected to exercise clinical judgment where appropriate and have discretion in making individual coverage determinations. Where coverage for care or services does not depend on specific circumstances, reimbursement will only be provided if a requested service(s) is submitted in accordance with the relevant criteria outlined in the applicable Coverage Policy, including covered diagnosis and/or procedure code(s). Reimbursement is not allowed for services when billed for conditions or diagnoses that are not covered under this Coverage Policy (see "Coding Information" below). When billing, providers must use the most appropriate codes as of the effective date of the submission. Claims submitted for services that are not accompanied by covered code(s) under the applicable Coverage Policy will be denied as not covered. Coverage Policies relate exclusively to the administration of health benefit plans. Coverage Policies are not recommendations for treatment and should never be used as treatment guidelines. In certain markets, delegated vendor guidelines may be used to support medical necessity and other coverage determinations.

Overview

This Coverage Policy addresses the general criteria used to determine if a laboratory test is considered clinically useful. It is based on prescribing and test development standards, the recommendations of the United States Preventive Services Task Force (USPSTF) and recommendations of published Professional Societies/Organizations. Some tests may have a companion Cigna Coverage Policy specific to that test or test category. The reader is referred to the Related Resources noted above for links to Cigna Coverage Policies with disease- or condition-specific laboratory testing content.

Coverage Policy

If the test, condition or indication is addressed by another Cigna Coverage Policy, please use the more specific policy.

Medically Necessary

General Criteria for Medically Necessary Lab Testing

A laboratory test or panel of tests that is required to prevent, evaluate, diagnose or treat an illness, injury, disease or its symptoms is considered medically necessary if ALL of the following criteria are met:

- the testing method for each single test or test in a panel is scientifically valid (i.e., analytical validity: accuracy, precision, sensitivity, specificity, reproducibility of results) based on published, peer-reviewed prospective evidence
- ordered and performed according to test manufacturer's intended indications for use
- ordered by a qualified health care practitioner, practicing within the scope of their license and who is actively managing the individual's care

- US Food and Drug Administration (FDA) cleared or approved and/or performed in an appropriately credentialed and certified laboratory setting
- not primarily for the convenience of the individual or Health Care Professional
- the type, frequency, extent, site and duration of testing is consistent with the need to obtain laboratory information in order to assess and/or manage the clinical needs of the individual
- each single test or test in a panel should not be duplicative or overlap in clinical intent with other services previously or currently being performed
- **ANY of the following:**

    - The USPSTF has designated use of the test as a Level A or B recommendation
    - There is published, evidence-based Professional Society/Organization guidance specifically addressing the test's use to treat or diagnose a specific illness, injury, disease or clinical symptoms exhibited by a specific individual for whom the test is ordered
    - There is sufficient published, evidence-based literature that each test has clinical usefulness to drive clinical decision making, resulting in improved health outcomes of the individual for whom testing is proposed

Not Medically Necessary

A laboratory test is considered not medically necessary if the criteria described above are not met.

A laboratory test is considered not medically necessary for ANY of the following:

- testing intervals or indications performed outside of published A&B recommendations of the USPSTF and/or published professional society/organization guidelines
- absence of documented changes in the condition of the individual, requiring further evaluation
- results of the test will not directly impact the clinical management of the individual

Unless addressed by another Cigna Coverage Policy, screening in the general population without specific signs or symptoms or an existing diagnosis that suggests the clinical need for the test is Not Medically Necessary.

Experimental, Investigational, or Unproven

Each of the following laboratory tests listed below is considered experimental, investigational, or unproven for ANY indication:

- PreTRM® (CPT® 0247U)
- Immunoscore (CPT® 0261U)
- NaviDKD™ Predictive Diagnostic Screening for Kidney Health (CPT® 0384U)
- IGoCheck™ (CPT® 0558U)
- MammoCheck™ (CPT® 0559U)
- Auria© Home Breast Health Assessment (CPT® 0458U)
- Promarker®D (CPT® 0385U)
- NanoDetect-TB (CPT® 0574U)

Not Covered or Reimbursable

Epigenetic testing that analyzes DNA methylation patterns to establish risk, likelihood, or susceptibility for developing a disease or condition is not covered or reimbursable, including each of the following:

- TruD MDS Alzheimer's & MC™ (CPT® 0616U)
- TruD MDS ASCVD™ (CPT® 0617U)
- TruD MDS Bipolar™ (CPT® 0618U)
- TruD MDS COPD™ (CPT® 0619U)
- TruD MDS Hepatocellular Carcinoma™ (CPT® 0620U)
- TruD MDS Lyme Disease™ (CPT® 0621U)
- TruD MDS Major Depressive Disorder™ (CPT® 0622U)
- TruD MDS Multiple Sclerosis™ (CPT® 0623U)
- TruD MDS NASH™ (CPT® 0624U)
- TruD MDS Osteoporosis™ (CPT® 0625U)
- TruD MDS Parkinson's™ (CPT® 0626U)
- TruD MDS Schizophrenia™ (CPT® 0627U)

The following multi-gene NGS testing panel is not covered or reimbursable:

- RenaDx™ (CPT® 0628U)

Coding Information

Notes:

1. This list of codes may not be all-inclusive since the American Medical Association (AMA) and Centers for Medicare and Medicaid Services (CMS) code updates may occur more frequently than policy updates.
2. Deleted codes and codes which are not effective at the time the service is rendered may not be eligible for reimbursement.

Considered Not Medically Necessary when performed as screening in the general population without specific signs or symptoms or an existing diagnosis that suggests the clinical need for the test:

CPT®* Codes	Description
0002M	Liver disease, ten biochemical assays (ALT, A2-macroglobulin, apolipoprotein A-1, total bilirubin, GGT, haptoglobin, AST, glucose, total cholesterol and triglycerides) utilizing serum, prognostic algorithm reported as quantitative scores for fibrosis, steatosis and alcoholic steatohepatitis (ASH)
0002U	Oncology (colorectal), quantitative assessment of three urine metabolites (ascorbic acid, succinic acid and carnitine) by liquid chromatography with tandem mass spectrometry (LC-MS/MS) using multiple reaction monitoring acquisition, algorithm reported as likelihood of adenomatous polyps
0003M	Liver disease, ten biochemical assays (ALT, A2-macroglobulin, apolipoprotein A-1, total bilirubin, GGT, haptoglobin, AST, glucose, total cholesterol and triglycerides) utilizing serum, prognostic algorithm reported as quantitative scores for fibrosis, steatosis and nonalcoholic steatohepatitis (NASH)
0003U	Oncology (ovarian) biochemical assays of five proteins (apolipoprotein A-1, CA 125 II, follicle stimulating hormone, human epididymis protein 4, transferrin), utilizing serum, algorithm reported as a likelihood score

CPT®* Codes	Description
0007U	Drug test(s), presumptive, with definitive confirmation of positive results, any number of drug classes, urine, includes specimen verification including DNA authentication in comparison to buccal DNA, per date of service
0008U	Helicobacter pylori detection and antibiotic resistance, DNA, 16S and 23S rRNA, gyrA, pbp1, rdxA and rpoB, next generation sequencing, formalin-fixed paraffin-embedded or fresh tissue or fecal sample, predictive, reported as positive or negative for resistance to clarithromycin, fluoroquinolones, metronidazole, amoxicillin, tetracycline, and rifabutin
0010U	Infectious disease (bacterial), strain typing by whole genome sequencing, phylogenetic-based report of strain relatedness, per submitted isolate
0011U	Prescription drug monitoring, evaluation of drugs present by LC-MS/MS, using oral fluid, reported as a comparison to an estimated steady-state range, per date of service including all drug compounds and metabolites
0018M	Transplantation medicine (allograft rejection, renal), measurement of donor and third party-induced CD154+T-cytotoxic memory cells, utilizing whole peripheral blood, algorithm reported as a rejection risk score
0019M	Cardiovascular disease, plasma, analysis of protein biomarkers by aptamer-based microarray and algorithm reported as 4-year likelihood of coronary event in high-risk populations
0021U	Oncology (prostate), detection of 8 autoantibodies (ARF 6, NKX3-1, 5'-UTR-BMI1, CEP 164, 3'-UTR-Ropporin, Desmocollin, AURKAIP-1, CSNK2A2), multiplexed immunoassay and flow cytometry serum, algorithm reported as risk score
0024U	Glycosylated acute phase proteins (GlycA), nuclear magnetic resonance spectroscopy, quantitative
0025U	Tenofovir, by liquid chromatography with tandem mass spectrometry (LC-MS/MS), urine, quantitative
0035U	Neurology (prion disease), cerebrospinal fluid, detection of prion protein by quaking-induced conformational conversion, qualitative
0039U	Deoxyribonucleic acid (DNA) antibody, double stranded, high avidity
0041U	Borrelia burgdorferi, antibody detection of 5 recombinant protein groups, by immunoblot, IgM
0042U	Borrelia burgdorferi, antibody detection of 12 recombinant protein groups, by immunoblot, IgG
0043U	Tick-borne relapsing fever Borrelia group, antibody detection to 4 recombinant protein groups, by immunoblot, IgM
0044U	Tick-borne relapsing fever Borrelia group, antibody detection to 4 recombinant protein groups, by immunoblot, IgG
0051U	Prescription drug monitoring, evaluation of drugs present by liquid chromatography tandem mass spectrometry (LC-MS/MS), urine or blood, 31 drug panel, reported as quantitative results, detected or not detected, per date of service
0052U	Lipoprotein, blood, high resolution fractionation and quantitation of lipoproteins, including all five major lipoprotein classes and subclasses of HDL, LDL, and VLDL by vertical auto profile ultracentrifugation
0054U	Prescription drug monitoring, 14 or more classes of drugs and substances, definitive tandem mass spectrometry with chromatography, capillary blood, quantitative report with therapeutic and toxic ranges, including steady-state range for the prescribed dose when detected, per date of service

CPT®* Codes	Description
0055U	Cardiology (heart transplant), cell-free DNA, PCR assay of 96 DNA target sequences (94 single nucleotide polymorphism targets and two control targets), plasma
0058U	Oncology (Merkel cell carcinoma), detection of antibodies to the Merkel cell polyoma virus oncoprotein (small T antigen), serum, quantitative
0059U	Oncology (Merkel cell carcinoma), detection of antibodies to the Merkel cell polyoma virus capsid protein (VP1), serum, reported as positive or negative
0060U	Twin zygosity, genomic-targeted sequence analysis of chromosome 2, using circulating cell-free fetal DNA in maternal blood
0061U	Transcutaneous measurement of five biomarkers (tissue oxygenation [StO2], oxyhemoglobin [ctHbO2], deoxyhemoglobin [ctHbR], papillary and reticular dermal hemoglobin concentrations [ctHb1 and ctHb2]), using spatial frequency domain imaging (SFDI) and multi-spectral analysis
0062U	Autoimmune (systemic lupus erythematosus), IgG and IgM analysis of 80 biomarkers, utilizing serum, algorithm reported with a risk score
0065U	Syphilis test, non-treponemal antibody, immunoassay, qualitative (RPR)
0067U	Oncology (breast), immunohistochemistry, protein expression profiling of 4 biomarkers (matrix metalloproteinase-1 [MMP-1], carcinoembryonic antigen-related cell adhesion molecule 6 [CEACAM6], hyaluronoglucosaminidase [HYAL1], highly expressed in cancer protein [HEC1]), formalin-fixed paraffin-embedded precancerous breast tissue, algorithm reported as carcinoma risk score
0068U	Candida species panel (C. albicans, C. glabrata, C. parapsilosis, C. kruseii, C. tropicalis, and C. auris), amplified probe technique with qualitative report of the presence or absence of each species
0069U	Oncology (colorectal), microRNA, RT-PCR expression profiling of miR-31-3p, formalin-fixed paraffin-embedded tissue, algorithm reported as an expression score
0077U	Immunoglobulin paraprotein (M-protein), qualitative, immunoprecipitation and mass spectrometry, blood or urine, including isotype
0079U	Comparative DNA analysis using multiple selected single-nucleotide polymorphisms (SNPs), urine and buccal DNA, for specimen identity verification
0082U	Drug test(s), definitive, 90 or more drugs or substances, definitive chromatography with mass spectrometry, and presumptive, any number of drug classes, by instrument chemistry analyzer (utilizing immunoassay), urine, report of presence or absence of each drug, drug metabolite or substance with description and severity of significant interactions per date of service
0083U	Oncology, response to chemotherapy drugs using motility contrast tomography, fresh or frozen tissue, reported as likelihood of sensitivity or resistance to drugs or drug combinations
0086U	Infectious disease (bacterial and fungal), organism identification, blood culture, using rRNA FISH, 6 or more organism targets, reported as positive or negative with phenotypic minimum inhibitory concentration (MIC)-based antimicrobial susceptibility
0092U	Oncology (lung), three protein biomarkers, immunoassay using magnetic nanosensor technology, plasma, algorithm reported as risk score for likelihood of malignancy
0093U	Prescription drug monitoring, evaluation of 65 common drugs by LC-MS/MS, urine, each drug reported detected or not detected
0095U	Eosinophilic esophagitis (Eotaxin-3 [CCL26 {C-C motif chemokine ligand 26}] and major basic protein [PRG2 {proteoglycan 2, pro eosinophil major basic

CPT®* Codes	Description
	protein}]), enzyme-linked immunosorbent assays (ELISA), specimen obtained by esophageal string test device, algorithm reported as probability of active or inactive eosinophilic esophagitis
0096U	Human papillomavirus (HPV), high-risk types (ie., 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66, 68), male urine
0105U	Nephrology (chronic kidney disease), multiplex electrochemiluminescent immunoassay (ECLIA) of tumor necrosis factor receptor 1A, receptor superfamily 2 (TNFR1, TNFR2), and kidney injury molecule-1 (KIM-1) combined with longitudinal clinical data, including APOL1 genotype if available, and plasma (isolated fresh or frozen), algorithm reported as probability score for rapid kidney function decline (RKFD)
0107U	Clostridium difficile toxin(s) antigen detection by immunoassay technique, stool, qualitative, multiple-step method
0108U	Gastroenterology (Barrett's esophagus), whole slide-digital imaging, including morphometric analysis, computer-assisted quantitative immunolabeling of 9 protein biomarkers (p16, AMACR, p53, CD68, COX-2, CD45RO, HIF1a, HER-2, K20) and morphology, formalin-fixed paraffin-embedded tissue, algorithm reported as risk of progression to high-grade dysplasia or cancer
0109U	Infectious disease (Aspergillus species), real-time PCR for detection of DNA from 4 species (A. fumigatus, A. terreus, A. niger, and A. flavus), blood, lavage fluid, or tissue, qualitative reporting of presence or absence of each species
0110U	Prescription drug monitoring, one or more oral oncology drug(s) and substances, definitive tandem mass spectrometry with chromatography, serum or plasma from capillary blood or venous blood, quantitative report with steady-state range for the prescribed drug(s) when detected
0114U	Gastroenterology (Barrett's esophagus), VIM and CCNA1 methylation analysis, esophageal cells, algorithm reported as likelihood for Barrett's esophagus
0116U	Prescription drug monitoring, enzyme immunoassay of 35 or more drugs confirmed with LC-MS/MS, oral fluid, algorithm results reported as a patient-compliance measurement with risk of drug-to-drug interactions for prescribed medications
0117U	Pain management, analysis of 11 endogenous analytes (methylmalonic acid, xanthurenic acid, homocysteine, pyroglutamic acid, vanilmandelate, 5-hydroxyindoleacetic acid, hydroxymethylglutarate, ethylmalonate, 3-hydroxypropyl mercapturic acid (3-HPMA), quinolinic acid, kynurenic acid), LC-MS/MS, urine, algorithm reported as a pain-index score with likelihood of atypical biochemical function associated with pain
0119U	Cardiology, ceramides by liquid chromatography-tandem mass spectrometry, plasma, quantitative report with risk score for major cardiovascular events
0121U	Sickle cell disease, microfluidic flow adhesion (VCAM-1), whole blood
0122U	Sickle cell disease, microfluidic flow adhesion (P-Selectin), whole blood
0123U	Mechanical fragility, RBC, shear stress and spectral analysis profiling
0163U	Oncology (colorectal) screening, biochemical enzyme-linked immunosorbent assay (ELISA) of 3 plasma or serum proteins (teratocarcinoma derived growth factor-1 [TDGF-1, Cripto-1], carcinoembryonic antigen [CEA], extracellular matrix protein [ECM]), with demographic data (age, gender, CRC-screening compliance) using a proprietary algorithm and reported as likelihood of CRC or advanced adenomas
0164U	Gastroenterology (irritable bowel syndrome [IBS]), immunoassay for anti-CdtB and anti-vinculin antibodies, utilizing plasma, algorithm for elevated or not elevated qualitative results

CPT®* Codes	Description
0166U	Liver disease, 10 biochemical assays (α2-macroglobulin, haptoglobin, apolipoprotein A1, bilirubin, GGT, ALT, AST, triglycerides, cholesterol, fasting glucose) and biometric and demographic data, utilizing serum, algorithm reported as scores for fibrosis, necroinflammatory activity, and steatosis with a summary interpretation
0176U	Cytolethal distending toxin B (CdtB) and vinculin IgG antibodies by immunoassay (ie, ELISA)
0180U	Red cell antigen (ABO blood group) genotyping (ABO), gene analysis Sanger/chain termination/conventional sequencing, ABO (ABO, alpha 1-3-N-acetylgalactosaminyltransferase and alpha 1-3-galactosyltransferase) gene, including subtyping, 7 exons
0181U	Red cell antigen (Colton blood group) genotyping (CO), gene analysis, AQP1 (aquaporin 1 [Colton blood group]) exon 1
0182U	Red cell antigen (Cromer blood group) genotyping (CROM), gene analysis, CD55 (CD55 molecule [Cromer blood group]) exons 1-10
0183U	Red cell antigen (Diego blood group) genotyping (DI), gene analysis, SLC4A1 (solute carrier family 4 member 1 [Diego blood group]) exon 19
0184U	Red cell antigen (Dombrock blood group) genotyping (DO), gene analysis, ART4 (ADP-ribosyltransferase 4 [Dombrock blood group]) exon 2
0185U	Red cell antigen (H blood group) genotyping (FUT1), gene analysis, FUT1 (fucosyltransferase 1 [H blood group]) exon 4
0186U	Red cell antigen (H blood group) genotyping (FUT2), gene analysis, FUT2 (fucosyltransferase 2) exon 2
0187U	Red cell antigen (Duffy blood group) genotyping (FY), gene analysis, ACKR1 (atypical chemokine receptor 1 [Duffy blood group]) exons 1-2
0188U	Red cell antigen (Gerbich blood group) genotyping (GE), gene analysis, GYPC (glycophorin C [Gerbich blood group]) exons 1-4
0189U	Red cell antigen (MNS blood group) genotyping (GYPA), gene analysis, GYPA (glycophorin A [MNS blood group]) introns 1, 5, exon 2
0190U	Red cell antigen (MNS blood group) genotyping (GYPB), gene analysis, GYPB (glycophorin B [MNS blood group]) introns 1, 5, pseudoexon 3
0191U	Red cell antigen (Indian blood group) genotyping (IN), gene analysis, CD44 (CD44 molecule [Indian blood group]) exons 2, 3, 6
0192U	Red cell antigen (Kidd blood group) genotyping (JK), gene analysis, SLC14A1 (solute carrier family 14 member 1 [Kidd blood group]) gene promoter, exon 9
0194U	Red cell antigen (Kell blood group) genotyping (KEL), gene analysis, KEL (Kell metallo-endopeptidase [Kell blood group]) exon 8
0196U	Red cell antigen (Lutheran blood group) genotyping (LU), gene analysis, BCAM (basal cell adhesion molecule [Lutheran blood group]) exon 3
0197U	Red cell antigen (Landsteiner-Wiener blood group) genotyping (LW), gene analysis, ICAM4 (intercellular adhesion molecule 4 [Landsteiner-Wiener blood group]) exon 1
0198U	Red cell antigen (RH blood group) genotyping (RHD and RHCE), gene analysis Sanger/chain termination/conventional sequencing, RHD (Rh blood group D antigen) exons 1-10 and RHCE (Rh blood group CcEe antigens) exon 5
01990	Physiological support for harvesting of organ(s) from brain-dead patient
01996	Daily hospital management of epidural or subarachnoid continuous drug administration
0199U	Red cell antigen (Scianna blood group) genotyping (SC), gene analysis, ERMAP (erythroblast membrane associated protein [Scianna blood group]) exons 4, 12

CPT®* Codes	Description
0200U	Red cell antigen (Kx blood group) genotyping (XK), gene analysis, XK (X-linked Kx blood group) exons 1-3
0201U	Red cell antigen (Yt blood group) genotyping (YT), gene analysis, ACHE (acetylcholinesterase [Cartwright blood group]) exon 2
0206U	Neurology (Alzheimer disease); cell aggregation using morphometric imaging and protein kinase C-epsilon (PKCe) concentration in response to amylospheroid treatment by ELISA, cultured skin fibroblasts, each reported as positive or negative for Alzheimer disease
0207U	Neurology (Alzheimer disease); quantitative imaging of phosphorylated ERK1 and ERK2 in response to bradykinin treatment by in situ immunofluorescence, using cultured skin fibroblasts, reported as a probability index for Alzheimer disease (List separately in addition to code for primary procedure)
0210U	Syphilis test, non-treponemal antibody, immunoassay, quantitative (RPR)
0219U	Infectious agent (human immunodeficiency virus), targeted viral next-generation sequence analysis (ie, protease [PR], reverse transcriptase [RT], integrase [INT]), algorithm reported as prediction of antiviral drug susceptibility
0220U	Oncology (breast cancer), image analysis with artificial intelligence assessment of 12 histologic and immunohistochemical features, reported as a recurrence score
0221U	Red cell antigen (ABO blood group) genotyping (ABO), gene analysis, next-generation sequencing, ABO (ABO, alpha 1-3-N-acetylgalactosaminyltransferase and alpha 1-3-galactosyltransferase) gene
0222U	Red cell antigen (RH blood group) genotyping (RHD and RHCE), gene analysis, next-generation sequencing, RH proximal promoter, exons 1-10, portions of introns 2-3
0227U	Drug assay, presumptive, 30 or more drugs or metabolites, urine, liquid chromatography with tandem mass spectrometry (LC-MS/MS) using multiple reaction monitoring (MRM), with drug or metabolite description, includes sample validation
0228U	Oncology (prostate), multianalyte molecular profile by photometric detection of macromolecules adsorbed on nanosponge array slides with machine learning, utilizing first morning voided urine, algorithm reported as likelihood of prostate cancer
0243U	Obstetrics (preeclampsia), biochemical assay of placental-growth factor, time-resolved fluorescence immunoassay, maternal serum, predictive algorithm reported as a risk score for preeclampsia
0246U	Red blood cell antigen typing, DNA, genotyping of at least 16 blood groups with phenotype prediction of at least 51 red blood cell antigens
0251U	Hepcidin-25, enzyme-linked immunosorbent assay (ELISA), serum or plasma
0255U	Andrology (infertility), sperm-capacitation assessment of ganglioside GM1 distribution patterns, fluorescence microscopy, fresh or frozen specimen, reported as percentage of capacitated sperm and probability of generating a pregnancy score
0256U	Trimethylamine/trimethylamine N-oxide (TMA/TMAO) profile, tandem mass spectrometry (MS/MS), urine, with algorithmic analysis and interpretive report
0257U	Very long chain acyl-coenzyme A (CoA) dehydrogenase (VLCAD), leukocyte enzyme activity, whole blood
0259U	Nephrology (chronic kidney disease), nuclear magnetic resonance spectroscopy measurement of myo-inositol, valine, and creatinine, algorithmically combined with cystatin C (by immunoassay) and demographic data to determine estimated glomerular filtration rate (GFR), serum, quantitative

CPT®* Codes	Description
0275U	Hematology (heparin-induced thrombocytopenia), platelet antibody reactivity by flow cytometry, serum
0279U	Hematology (von Willebrand disease [VWD]), von Willebrand factor (VWF) and collagen III binding by enzyme-linked immunosorbent assays (ELISA), plasma, report of collagen III binding
0280U	Hematology (von Willebrand disease [VWD]), von Willebrand factor (VWF) and collagen IV binding by enzyme-linked immunosorbent assays (ELISA), plasma, report of collagen IV binding
0281U	Hematology (von Willebrand disease [VWD]), von Willebrand propeptide, enzyme-linked immunosorbent assays (ELISA), plasma, diagnostic report of von Willebrand factor (VWF) propeptide antigen level
0282U	Red blood cell antigen typing, DNA, genotyping of 12 blood group system genes to predict 44 red blood cell antigen phenotypes
0283U	von Willebrand factor (VWF), type 2B, platelet-binding evaluation, radioimmunoassay, plasma
0284U	von Willebrand factor (VWF), type 2N, factor VIII and VWF binding evaluation, enzyme-linked immunosorbent assays (ELISA), plasma
0285U	Oncology, response to radiation, cell-free DNA, quantitative branched chain DNA amplification, plasma, reported as a radiation toxicity score
0295U	Oncology (breast ductal carcinoma in situ), protein expression profiling by immunohistochemistry of 7 proteins (COX2, FOXA1, HER2, Ki-67, p16, PR, SIAH2), with 4 clinicopathologic factors (size, age, margin status, palpability), utilizing formalin-fixed paraffin-embedded (FFPE) tissue, algorithm reported as a recurrence risk score
0301U	Infectious agent detection by nucleic acid (DNA or RNA), Bartonella henselae and Bartonella quintana, droplet digital PCR (ddPCR);
0302U	Infectious agent detection by nucleic acid (DNA or RNA), Bartonella henselae and Bartonella quintana, droplet digital PCR (ddPCR); following liquid enrichment
0303U	Hematology, red blood cell (RBC) adhesion to endothelial/subendothelial adhesion molecules, functional assessment, whole blood, with algorithmic analysis and result reported as an RBC adhesion index; hypoxic
0304U	Hematology, red blood cell (RBC) adhesion to endothelial/subendothelial adhesion molecules, functional assessment, whole blood, with algorithmic analysis and result reported as an RBC adhesion index; normoxic
0305U	Hematology, red blood cell (RBC) functionality and deformity as a function of shear stress, whole blood, reported as a maximum elongation index
0308U	Cardiology (coronary artery disease [CAD]), analysis of 3 proteins (high sensitivity [hs] troponin, adiponectin, and kidney injury molecule-1 [KIM-1]) with 3 clinical parameters (age, sex, history of cardiac intervention), plasma, algorithm reported as a risk score for obstructive CAD
0311U	Infectious disease (bacterial), quantitative antimicrobial susceptibility reported as phenotypic minimum inhibitory concentration (MIC)-based antimicrobial susceptibility for each organism identified
0312U	Autoimmune diseases (eg, systemic lupus erythematosus [SLE]), analysis of 8 IgG autoantibodies and 2 cell-bound complement activation products using enzyme-linked immunosorbent immunoassay (ELISA), flow cytometry and indirect immunofluorescence, serum, or plasma and whole blood, individual components reported along with an algorithmic SLE-likelihood assessment
0316U	Borrelia burgdorferi (Lyme disease), OspA protein evaluation, urine

CPT®* Codes	Description
0317U	Oncology (lung cancer), four-probe FISH (3q29, 3p22.1, 10q22.3, 10cen) assay, whole blood, predictive algorithm-generated evaluation reported as decreased or increased risk for lung cancer
0319U	Nephrology (renal transplant), RNA expression by select transcriptome sequencing, using pretransplant peripheral blood, algorithm reported as a risk score for early acute rejection
0320U	Nephrology (renal transplant), RNA expression by select transcriptome sequencing, using post-transplant peripheral blood, algorithm reported as a risk score for acute cellular rejection
0328U	Drug assay, definitive, 120 or more drugs and metabolites, urine, quantitative liquid chromatography with tandem mass spectrometry (LC-MS/MS), includes specimen validity and algorithmic analysis describing drug or metabolite and presence or absence of risks for a significant patient-adverse event, per date of service
0337U	Oncology (plasma cell disorders and myeloma), circulating plasma cell immunologic selection, identification, morphological characterization, and enumeration of plasma cells based on differential CD138, CD38, CD19, and CD45 protein biomarker expression, peripheral blood
0338U	Oncology (solid tumor), circulating tumor cell selection, identification, morphological characterization, detection and enumeration based on differential EpCAM, cytokeratins 8, 18, and 19, and CD45 protein biomarkers, and quantification of HER2 protein biomarker-expressing cells, peripheral blood
0342U	Oncology (pancreatic cancer), multiplex immunoassay of C5, C4, cystatin C, factor B, osteoprotegerin (OPG), gelsolin, IGFBP3, CA125 and multiplex electrochemiluminescent immunoassay (ECLIA) for CA19-9, serum, diagnostic algorithm reported qualitatively as positive, negative, or borderline
0344U	Hepatology (nonalcoholic fatty liver disease [NAFLD]), semiquantitative evaluation of 28 lipid markers by liquid chromatography with tandem mass spectrometry (LC-MS/MS), serum, reported as at-risk for nonalcoholic steatohepatitis (NASH) or not NASH
0351U	Infectious disease (bacterial or viral), biochemical assays, tumor necrosis factor-related apoptosis-inducing ligand (TRAIL), interferon gamma-induced protein-10 (IP-10), and C-reactive protein, serum, or venous whole blood, algorithm reported as likelihood of bacterial infection
0359U	Oncology (prostate cancer), analysis of all prostate-specific antigen (PSA) structural isoforms by phase separation and immunoassay, plasma, algorithm reports risk of cancer
0361U	Neurofilament light chain, digital immunoassay, plasma, quantitative
0375U	Oncology (ovarian), biochemical assays of 7 proteins (follicle stimulating hormone, human epididymis protein 4, apolipoprotein A-1, transferrin, beta-2 macroglobulin, prealbumin [ie, transthyretin], and cancer antigen 125), algorithm reported as ovarian cancer risk score
0377U	Cardiovascular disease, quantification of advanced serum or plasma lipoprotein profile, by nuclear magnetic resonance (NMR) spectrometry with report of a lipoprotein profile (including 23 variables)
0381U	Maple syrup urine disease monitoring by patient-collected blood card sample, quantitative measurement of allo-isoleucine, leucine, isoleucine, and valine, liquid chromatography with tandem mass spectrometry (LC-MS/MS)
0382U	Hyperphenylalaninemia monitoring by patient-collected blood card sample, quantitative measurement of phenylalanine and tyrosine, liquid chromatography with tandem mass spectrometry (LC-MS/MS)

CPT®* Codes	Description
0383U	Tyrosinemia type I monitoring by patient-collected blood card sample, quantitative measurement of tyrosine, phenylalanine, methionine, succinylacetone, nitisinone, liquid chromatography with tandem mass spectrometry (LC-MS/MS)
0393U	Neurology (eg, Parkinson disease, dementia with Lewy bodies), cerebrospinal fluid (CSF), detection of misfolded α-synuclein protein by seed amplification assay, qualitative
0394U	Perfluoroalkyl substances (PFAS) (eg, perfluorooctanoic acid, perfluorooctane sulfonic acid), 16 PFAS compounds by liquid chromatography with tandem mass spectrometry (LC-MS/MS), plasma or serum, quantitative
0395U	Oncology (lung), multi-omics (microbial DNA by shotgun next-generation sequencing and carcinoembryonic antigen and osteopontin by immunoassay), plasma, algorithm reported as malignancy risk for lung nodules in early-stage disease
0399U	Neurology (cerebral folate deficiency), serum, detection of anti-human folate receptor IgG-binding antibody and blocking autoantibodies by enzyme-linked immunoassay (ELISA), qualitative, and blocking autoantibodies, using a functional blocking assay for IgG or IgM, quantitative, reported as positive or not detected
0402U	Infectious agent (sexually transmitted infection), Chlamydia trachomatis, Neisseria gonorrhoeae, Trichomonas vaginalis, Mycoplasma genitalium, multiplex amplified probe technique, vaginal, endocervical, or male urine, each pathogen reported as detected or not detected
0404U	Oncology (breast), semiquantitative measurement of thymidine kinase activity by immunoassay, serum, results reported as risk of disease progression
0405U	Oncology (pancreatic), 59 methylation haplotype block markers, next-generation sequencing, plasma, reported as cancer signal detected or not detected
0406U	Oncology (lung), flow cytometry, sputum, 5 markers (meso-tetra [4-carboxyphenyl] porphyrin [TCPP], CD206, CD66b, CD3, CD19), algorithm reported as likelihood of lung cancer
0407U	Nephrology (diabetic chronic kidney disease [CKD]), multiplex electrochemiluminescent immunoassay (ECLIA) of soluble tumor necrosis factor receptor 1 (sTNFR1), soluble tumor necrosis receptor 2 (sTNFR2), and kidney injury molecule 1 (KIM-1) combined with clinical data, plasma, algorithm reported as risk for progressive decline in kidney function
0408U	Infectious agent antigen detection by bulk acoustic wave biosensor immunoassay, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19])
0415U	Cardiovascular disease (acute coronary syndrome [ACS]), IL-16, FAS, FASLigand, HGF, CTACK, EOTAXIN, and MCP-3 by immunoassay combined with age, sex, family history, and personal history of diabetes, blood, algorithm reported as a 5-year (deleted risk) score for ACS
0418U	Oncology (breast), augmentative algorithmic analysis of digitized whole slide imaging of 8 histologic and immunohistochemical features, reported as a recurrence score
0427U	Monocyte distribution width, whole blood (List separately in addition to code for primary procedure)
0429U	Human papillomavirus (HPV), oropharyngeal swab, 14 high-risk types (ie, 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66, and 68)

CPT®* Codes	Description
0430U	Gastroenterology, malabsorption evaluation of alpha-1-antitrypsin, calprotectin, pancreatic elastase and reducing substances, feces, quantitative
0431U	Glycine receptor alpha1 IgG, serum or cerebrospinal fluid (CSF), live cell-binding assay (LCBA), qualitative
0432U	Kelch-like protein 11 (KLHL11) antibody, serum or cerebrospinal fluid (CSF), cell-binding assay, qualitative
0435U	Oncology, chemotherapeutic drug cytotoxicity assay of cancer stem cells (CSCs), from cultured CSCs and primary tumor cells, categorical drug response reported based on cytotoxicity percentage observed, minimum of 14 drugs or drug combinations
0446U	Autoimmune diseases (systemic lupus erythematosus [SLE]), analysis of 10 cytokine soluble mediator biomarkers by immunoassay, plasma, individual components reported with an algorithmic risk score for current disease activity
0447U	Autoimmune diseases (systemic lupus erythematosus [SLE]), analysis of 11 cytokine soluble mediator biomarkers by immunoassay, plasma, individual components reported with an algorithmic prognostic risk score for developing a clinical flare
0462U	Melatonin levels test, sleep study, 7 or 9 sample melatonin profile (cortisol optional), enzyme-linked immunosorbent assay (ELISA), saliva, screening/preliminary
80047	Basic metabolic panel (Calcium, ionized) This panel must include the following: Calcium, ionized (82330) Carbon dioxide (bicarbonate) (82374) Chloride (82435) Creatinine (82565) Glucose (82947) Potassium (84132) Sodium (84295) Urea Nitrogen (BUN) (84520)
80048	Basic metabolic panel (Calcium, total) This panel must include the following: Calcium, total (82310) Carbon dioxide (bicarbonate) (82374) Chloride (82435) Creatinine (82565) Glucose (82947) Potassium (84132) Sodium (84295) Urea nitrogen (BUN) (84520)
80050	General health panel This panel must include the following: Comprehensive metabolic panel (80053) Blood count, complete (CBC), automated and automated differential WBC count (85025 or 85027 and 85004) OR Blood count, complete (CBC), automated (85027) and appropriate manual differential WBC count (85007 or 85009) Thyroid stimulating hormone (TSH) (84443)
80051	Electrolyte panel This panel must include the following: Carbon dioxide (bicarbonate) (82374) Chloride (82435) Potassium (84132) Sodium (84295)
80053	Comprehensive metabolic panel This panel must include the following: Albumin (82040) Bilirubin, total (82247) Calcium, total (82310) Carbon dioxide (bicarbonate) (82374) Chloride (82435) Creatinine (82565) Glucose (82947) Phosphatase, alkaline (84075) Potassium (84132) Protein, total (84155) Sodium (84295) Transferase, alanine amino (ALT) (SGPT) (84460) Transferase, aspartate amino (AST) (SGOT) (84450) Urea nitrogen (BUN) (84520)
80055	Obstetric panel This panel must include the following: Blood count, complete (CBC), automated and automated differential WBC count (85025 or 85027 and 85004) OR Blood count, complete (CBC), automated (85027) and appropriate manual differential WBC count (85007 or 85009) Hepatitis B surface antigen (HBsAg) (87340) Antibody, rubella (86762) Syphilis test, non-treponemal antibody; qualitative (eg, VDRL, RPR, ART) (86592) Antibody screen, RBC, each serum technique (86850) Blood typing, ABO (86900) AND Blood typing, Rh (D) (86901)
80069	Renal function panel This panel must include the following: Albumin (82040) Calcium, total (82310) Carbon dioxide (bicarbonate) (82374) Chloride (82435)

CPT®* Codes	Description
	Creatinine (82565) Glucose (82947) Phosphorus inorganic (phosphate) (84100) Potassium (84132) Sodium (84295) Urea nitrogen (BUN) (84520)
80074	Acute hepatitis panel This panel must include the following: Hepatitis A antibody (HAAb), IgM antibody (86709) Hepatitis B core antibody (HBcAb), IgM antibody (86705) Hepatitis B surface antigen (HBsAg) (87340) Hepatitis C antibody (86803)
80076	Hepatic function panel This panel must include the following: Albumin (82040) Bilirubin, total (82247) Bilirubin, direct (82248) Phosphatase, alkaline (84075) Protein, total (84155) Transferase, alanine amino (ALT) (SGPT) (84460) Transferase, aspartate amino (AST) (SGOT) (84450)
80143	Acetaminophen
80150	Amikacin
80151	Amiodarone
80155	Caffeine
80156	Carbamazepine; total
80157	Carbamazepine; free
80158	Cyclosporine
80159	Clozapine
80161	Carbamazepine; -10,11-epoxide
80162	Digoxin; total
80163	Digoxin; free
80164	Valproic acid (dipropylacetic acid); total
80165	Valproic acid (dipropylacetic acid); free
80167	Felbamate
80168	Ethosuximide
80169	Everolimus
80170	Gentamicin
80171	Gabapentin, whole blood, serum, or plasma
80173	Haloperidol
80175	Lamotrigine
80176	Lidocaine
80177	Levetiracetam
80178	Lithium
80179	Salicylate
80180	Mycophenolate (mycophenolic acid)
80181	Flecainide
80183	Oxcarbazepine
80184	Phenobarbital
80185	Phenytoin; total
80186	Phenytoin; free
80187	Posaconazole
80188	Primidone
80189	Itraconazole
80190	Procainamide;
80192	Procainamide; with metabolites (eg, n-acetyl procainamide)
80193	Leflunomide
80194	Quinidine
80195	Sirolimus
80197	Tacrolimus
80198	Theophylline

CPT®* Codes	Description
80199	Tiagabine
80200	Tobramycin
80201	Topiramate
80202	Vancomycin
80203	Zonisamide
80204	Methotrexate
80210	Rufinamide
80220	Hydroxychloroquine
80230	Infliximab
80235	Lacosamide
80280	Vedolizumab
80285	Voriconazole
80299	Quantitation of therapeutic drug, not elsewhere specified
80400	ACTH stimulation panel; for adrenal insufficiency This panel must include the following: Cortisol (82533 x 2)
80402	ACTH stimulation panel; for 21 hydroxylase deficiency This panel must include the following: Cortisol (82533 x 2) 17 hydroxyprogesterone (83498 x 2)
80406	ACTH stimulation panel; for 3 beta-hydroxydehydrogenase deficiency This panel must include the following: Cortisol (82533 x 2) 17 hydroxypregnenolone (84143 x 2)
80408	Aldosterone suppression evaluation panel (eg, saline infusion) This panel must include the following: Aldosterone (82088 x 2) Renin (84244 x 2)
80410	Calcitonin stimulation panel (eg, calcium, pentagastrin) This panel must include the following: Calcitonin (82308 x 3)
80412	Corticotropic releasing hormone (CRH) stimulation panel This panel must include the following: Cortisol (82533 x 6) Adrenocorticotropic hormone (ACTH) (82024 x 6)
80414	Chorionic gonadotropin stimulation panel; testosterone response This panel must include the following: Testosterone (84403 x 2 on 3 pooled blood samples)
80415	Chorionic gonadotropin stimulation panel; estradiol response This panel must include the following: Estradiol, total (82670 x 2 on 3 pooled blood samples)
80416	Renal vein renin stimulation panel (eg, captopril) This panel must include the following: Renin (84244 x 6)
80417	Peripheral vein renin stimulation panel (eg, captopril) This panel must include the following: Renin (84244 x 2)
80418	Combined rapid anterior pituitary evaluation panel This panel must include the following: Adrenocorticotropic hormone (ACTH) (82024 x 4) Luteinizing hormone (LH) (83002 x 4) Follicle stimulating hormone (FSH) (83001 x 4) Prolactin (84146 x 4) Human growth hormone (HGH) (83003 x 4) Cortisol (82533 x 4) Thyroid stimulating hormone (TSH) (84443 x 4)
80420	Dexamethasone suppression panel, 48 hour This panel must include the following: Free cortisol, urine (82530 x 2) Cortisol (82533 x 2) Volume measurement for timed collection (81050 x 2)
80422	Glucagon tolerance panel; for insulinoma This panel must include the following: Glucose (82947 x 3) Insulin (83525 x 3)
80424	Glucagon tolerance panel; for pheochromocytoma This panel must include the following: Catecholamines, fractionated (82384 x 2)
80426	Gonadotropin releasing hormone stimulation panel This panel must include the following: Follicle stimulating hormone (FSH) (83001 x 4) Luteinizing hormone (LH) (83002 x 4)

CPT®* Codes	Description
80428	Growth hormone stimulation panel (eg, arginine infusion, l-dopa administration) This panel must include the following: Human growth hormone (HGH) (83003 x 4)
80430	Growth hormone suppression panel (glucose administration) This panel must include the following: Glucose (82947 x 3) Human growth hormone (HGH) (83003 x 4)
80432	Insulin-induced C-peptide suppression panel This panel must include the following: Insulin (83525) C-peptide (84681 x 5) Glucose (82947 x 5)
80434	Insulin tolerance panel; for ACTH insufficiency This panel must include the following: Cortisol (82533 x 5) Glucose (82947 x 5)
80435	Insulin tolerance panel; for growth hormone deficiency This panel must include the following: Glucose (82947 x 5) Human growth hormone (HGH) (83003 x 5)
80436	Metyrapone panel This panel must include the following: Cortisol (82533 x 2) 11 deoxycortisol (82634 x 2)
80438	Thyrotropin releasing hormone (TRH) stimulation panel; 1 hour This panel must include the following: Thyroid stimulating hormone (TSH) (84443 x 3)
80439	Thyrotropin releasing hormone (TRH) stimulation panel; 2 hour This panel must include the following: Thyroid stimulating hormone (TSH) (84443 x 4)
80503	Pathology clinical consultation; for a clinical problem, with limited review of patient's history and medical records and straightforward medical decision making When using time for code selection, 5-20 minutes of total time is spent on the date of the consultation.
80504	Pathology clinical consultation; for a moderately complex clinical problem, with review of patient's history and medical records and moderate level of medical decision making When using time for code selection, 21-40 minutes of total time is spent on the date of the consultation.
80505	Pathology clinical consultation; for a highly complex clinical problem, with comprehensive review of patient's history and medical records and high level of medical decision making When using time for code selection, 41-60 minutes of total time is spent on the date of the consultation.
80506	Pathology clinical consultation; prolonged service, each additional 30 minutes (List separately in addition to code for primary procedure)
81000	Urinalysis, by dip stick or tablet reagent for bilirubin, glucose, hemoglobin, ketones, leukocytes, nitrite, pH, protein, specific gravity, urobilinogen, any number of these constituents; non-automated, with microscopy
81001	Urinalysis, by dip stick or tablet reagent for bilirubin, glucose, hemoglobin, ketones, leukocytes, nitrite, pH, protein, specific gravity, urobilinogen, any number of these constituents; automated, with microscopy
81002	Urinalysis, by dip stick or tablet reagent for bilirubin, glucose, hemoglobin, ketones, leukocytes, nitrite, pH, protein, specific gravity, urobilinogen, any number of these constituents; non-automated, without microscopy
81003	Urinalysis, by dip stick or tablet reagent for bilirubin, glucose, hemoglobin, ketones, leukocytes, nitrite, pH, protein, specific gravity, urobilinogen, any number of these constituents; automated, without microscopy
81005	Urinalysis; qualitative or semiquantitative, except immunoassays
81007	Urinalysis; bacteriuria screen, except by culture or dipstick
81015	Urinalysis; microscopic only
81020	Urinalysis; 2 or 3 glass test
81050	Volume measurement for timed collection, each
81099	Unlisted urinalysis procedure

CPT®* Codes	Description
81370	HLA Class I and II typing, low resolution (eg, antigen equivalents); HLA-A, -B, -C, -DRB1/3/4/5, and -DQB1
81371	HLA Class I and II typing, low resolution (eg, antigen equivalents); HLA-A, -B, and -DRB1 (eg, verification typing)
81372	HLA Class I typing, low resolution (eg, antigen equivalents); complete (ie, HLA-A, -B, and -C)
81373	HLA Class I typing, low resolution (eg, antigen equivalents); one locus (eg, HLA-A, -B, or -C), each
81375	HLA Class II typing, low resolution (eg, antigen equivalents); HLA-DRB1/3/4/5 and -DQB1
81376	HLA Class II typing, low resolution (eg, antigen equivalents); one locus (eg, HLA-DRB1, -DRB3/4/5, -DQB1, -DQA1, -DPB1, or -DPA1), each
81378	HLA Class I and II typing, high resolution (ie, alleles or allele groups), HLA-A, -B, -C, and -DRB1
81379	HLA Class I typing, high resolution (ie, alleles or allele groups); complete (ie, HLA-A, -B, and -C)
81380	HLA Class I typing, high resolution (ie, alleles or allele groups); one locus (eg, HLA-A, -B, or -C), each
81382	HLA Class II typing, high resolution (ie, alleles or allele groups); one locus (eg, HLA-DRB1, -DRB3/4/5, -DQB1, -DQA1, -DPB1, or -DPA1), each
81503	Oncology (ovarian), biochemical assays of five proteins (CA-125, apolipoprotein A1, beta-2 microglobulin, transferrin, and pre-albumin), utilizing serum, algorithm reported as a risk score
81508	Fetal congenital abnormalities, biochemical assays of two proteins (PAPP-A, hCG [any form]), utilizing maternal serum, algorithm reported as a risk score
81510	Fetal congenital abnormalities, biochemical assays of three analytes (AFP, uE3, hCG [any form]), utilizing maternal serum, algorithm reported as a risk score
81512	Fetal congenital abnormalities, biochemical assays of five analytes (AFP, uE3, total hCG, hyperglycosylated hCG, DIA) utilizing maternal serum, algorithm reported as a risk score
81517	Liver disease, analysis of 3 biomarkers (hyaluronic acid [HA], procollagen III amino terminal peptide [PIIINP], tissue inhibitor of metalloproteinase 1 [TIMP-1]), using immunoassays, utilizing serum, prognostic algorithm reported as a risk score and risk of liver fibrosis and liver-related clinical events within 5 years
81539	Oncology (high-grade prostate cancer), biochemical assay of four proteins (Total PSA, Free PSA, Intact PSA, and human kallikrein-2 [hK2]), utilizing plasma or serum, prognostic algorithm reported as a probability score
81560	Transplantation medicine (allograft rejection, pediatric liver and small bowel), measurement of donor and third party-induced CD154+T-cytotoxic memory cells, utilizing whole peripheral blood, algorithm reported as a rejection risk score
81596	Infectious disease, chronic hepatitis C virus (HCV) infection, six biochemical assays (ALT, A2-macroglobulin, apolipoprotein A-1, total bilirubin, GGT, and haptoglobin) utilizing serum, prognostic algorithm reported as scores for fibrosis and necroinflammatory activity in liver
82009	Ketone body(s) (eg, acetone, acetoacetic acid, beta-hydroxybutyrate); qualitative
82010	Ketone body(s) (eg, acetone, acetoacetic acid, beta-hydroxybutyrate); quantitative
82013	Acetylcholinesterase

CPT®* Codes	Description
82016	Acylcarnitines; qualitative, each specimen
82017	Acylcarnitines; quantitative, each specimen
82024	Adrenocorticotropic hormone (ACTH)
82030	Adenosine, 5-monophosphate, cyclic (cyclic AMP)
82040	Albumin; serum, plasma or whole blood
82042	Albumin; other source, quantitative, each specimen
82043	Albumin; urine (eg, microalbumin), quantitative
82044	Albumin; urine (eg, microalbumin), semiquantitative (eg, reagent strip assay)
82045	Albumin; ischemia modified
82075	Alcohol (ethanol); breath
82077	Alcohol (ethanol); any specimen except urine and breath, immunoassay (eg, IA, EIA, ELISA, RIA, EMIT, FPIA) and enzymatic methods (eg, alcohol dehydrogenase)
82085	Aldolase
82088	Aldosterone
82103	Alpha-1-antitrypsin; total
82104	Alpha-1-antitrypsin; phenotype
82105	Alpha-fetoprotein (AFP); serum
82106	Alpha-fetoprotein (AFP); amniotic fluid
82107	Alpha-fetoprotein (AFP); AFP-L3 fraction isoform and total AFP (including ratio)
82108	Aluminum
82120	Amines, vaginal fluid, qualitative
82127	Amino acids; single, qualitative, each specimen
82128	Amino acids; multiple, qualitative, each specimen
82131	Amino acids; single, quantitative, each specimen
82135	Aminolevulinic acid, delta (ALA)
82136	Amino acids, 2 to 5 amino acids, quantitative, each specimen
82139	Amino acids, 6 or more amino acids, quantitative, each specimen
82140	Ammonia
82143	Amniotic fluid scan (spectrophotometric)
82150	Amylase
82154	Androstanediol glucuronide
82157	Androstenedione
82160	Androsterone
82163	Angiotensin II
82164	Angiotensin I - converting enzyme (ACE)
82166	Anti-mullerian hormone (AMH)
82172	Apolipoprotein, each
82175	Arsenic
82180	Ascorbic acid (Vitamin C), blood
82190	Atomic absorption spectroscopy, each analyte
82232	Beta-2 microglobulin
82239	Bile acids; total
82240	Bile acids; cholylglycine
82248	Bilirubin; direct
82252	Bilirubin; feces, qualitative
82261	Biotinidase, each specimen
82271	Blood, occult, by peroxidase activity (eg, guaiac), qualitative; other sources

CPT®* Codes	Description
82272	Blood, occult, by peroxidase activity (eg, guaiac), qualitative, feces, 1-3 simultaneous determinations, performed for other than colorectal neoplasm screening
82286	Bradykinin
82300	Cadmium
82308	Calcitonin
82310	Calcium; total
82330	Calcium; ionized
82331	Calcium; after calcium infusion test
82340	Calcium; urine quantitative, timed specimen
82355	Calculus; qualitative analysis
82360	Calculus; quantitative analysis, chemical
82365	Calculus; infrared spectroscopy
82370	Calculus; X-ray diffraction
82373	Carbohydrate deficient transferrin
82374	Carbon dioxide (bicarbonate)
82375	Carboxyhemoglobin; quantitative
82376	Carboxyhemoglobin; qualitative
82378	Carcinoembryonic antigen (CEA)
82379	Carnitine (total and free), quantitative, each specimen
82380	Carotene
82382	Catecholamines; total urine
82383	Catecholamines; blood
82384	Catecholamines; fractionated
82387	Cathepsin-D
82390	Ceruloplasmin
82397	Chemiluminescent assay
82415	Chloramphenicol
82435	Chloride; blood
82436	Chloride; urine
82438	Chloride; other source
82441	Chlorinated hydrocarbons, screen
82480	Cholinesterase; serum
82482	Cholinesterase; RBC
82485	Chondroitin B sulfate, quantitative
82495	Chromium
82507	Citrate
82523	Collagen cross links, any method
82525	Copper
82528	Corticosterone
82530	Cortisol; free
82533	Cortisol; total
82540	Creatine
82542	Column chromatography, includes mass spectrometry, if performed (eg, HPLC, LC, LC/MS, LC/MS-MS, GC, GC/MS-MS, GC/MS, HPLC/MS), non-drug analyte(s) not elsewhere specified, qualitative or quantitative, each specimen
82550	Creatine kinase (CK), (CPK); total
82552	Creatine kinase (CK), (CPK); isoenzymes
82553	Creatine kinase (CK), (CPK); MB fraction only
82554	Creatine kinase (CK), (CPK); isoforms

CPT®* Codes	Description
82570	Creatinine; other source
82585	Cryofibrinogen
82595	Cryoglobulin, qualitative or semi-quantitative (eg, cryocrit)
82600	Cyanide
82607	Cyanocobalamin (Vitamin B-12);
82608	Cyanocobalamin (Vitamin B-12); unsaturated binding capacity
82615	Cystine and homocystine, urine, qualitative
82626	Dehydroepiandrosterone (DHEA)
82627	Dehydroepiandrosterone-sulfate (DHEA-S)
82633	Desoxycorticosterone, 11-
82634	Deoxycortisol, 11-
82638	Dibucaine number
82642	Dihydrotestosterone (DHT)
82653	Elastase, pancreatic (EL-1), fecal; quantitative
82656	Elastase, pancreatic (EL-1), fecal; qualitative or semi-quantitative
82657	Enzyme activity in blood cells, cultured cells, or tissue, not elsewhere specified; nonradioactive substrate, each specimen
82658	Enzyme activity in blood cells, cultured cells, or tissue, not elsewhere specified; radioactive substrate, each specimen
82664	Electrophoretic technique, not elsewhere specified
82668	Erythropoietin
82693	Ethylene glycol
82696	Etiocholanolone
82705	Fat or lipids, feces; qualitative
82710	Fat or lipids, feces; quantitative
82715	Fat differential, feces, quantitative
82725	Fatty acids, nonesterified
82726	Very long chain fatty acids
82728	Ferritin
82731	Fetal fibronectin, cervicovaginal secretions, semi-quantitative
82735	Fluoride
82759	Galactokinase, RBC
82760	Galactose
82775	Galactose-1-phosphate uridyl transferase; quantitative
82776	Galactose-1-phosphate uridyl transferase; screen
82777	Galectin-3
82784	Gammaglobulin (immunoglobulin); IgA, IgD, IgG, IgM, each
82785	Gammaglobulin (immunoglobulin); IgE
82787	Gammaglobulin (immunoglobulin); immunoglobulin subclasses (eg, IgG1, 2, 3, or 4), each
82800	Gases, blood, pH only
82803	Gases, blood, any combination of pH, pCO2, pO2, CO2, HCO3 (including calculated O2 saturation);
82805	Gases, blood, any combination of pH, pCO2, pO2, CO2, HCO3 (including calculated O2 saturation); with O2 saturation, by direct measurement, except pulse oximetry
82810	Gases, blood, O2 saturation only, by direct measurement, except pulse oximetry
82820	Hemoglobin-oxygen affinity (pO2 for 50% hemoglobin saturation with oxygen)
82930	Gastric acid analysis, includes pH if performed, each specimen

CPT®* Codes	Description
82938	Gastrin after secretin stimulation
82941	Gastrin
82943	Glucagon
82945	Glucose, body fluid, other than blood
82946	Glucagon tolerance test
82955	Glucose-6-phosphate dehydrogenase (G6PD); quantitative
82960	Glucose-6-phosphate dehydrogenase (G6PD); screen
82962	Glucose, blood by glucose monitoring device(s) cleared by the FDA specifically for home use
82963	Glucosidase, beta
82965	Glutamate dehydrogenase
82977	Glutamyltransferase, gamma (GGT)
82978	Glutathione
82979	Glutathione reductase, RBC
82985	Glycated protein
83003	Growth hormone, human (HGH) (somatotropin)
83006	Growth stimulation expressed gene 2 (ST2, Interleukin 1 receptor like-1)
83009	Helicobacter pylori, blood test analysis for urease activity, non-radioactive isotope (eg, C-13)
83010	Haptoglobin; quantitative
83012	Haptoglobin; phenotypes
83013	Helicobacter pylori; breath test analysis for urease activity, non-radioactive isotope (eg, C-13)
83014	Helicobacter pylori; drug administration
83015	Heavy metal (eg, arsenic, barium, beryllium, bismuth, antimony, mercury); qualitative, any number of analytes
83018	Heavy metal (eg, arsenic, barium, beryllium, bismuth, antimony, mercury); quantitative, each, not elsewhere specified
83020	Hemoglobin fractionation and quantitation; electrophoresis (eg, A2, S, C, and/or F)
83021	Hemoglobin fractionation and quantitation; chromatography (eg, A2, S, C, and/or F)
83026	Hemoglobin; by copper sulfate method, non-automated
83030	Hemoglobin; F (fetal), chemical
83033	Hemoglobin; F (fetal), qualitative
83037	Hemoglobin; glycosylated (A1C) by device cleared by FDA for home use
83045	Hemoglobin; methemoglobin, qualitative
83050	Hemoglobin; methemoglobin, quantitative
83051	Hemoglobin; plasma
83060	Hemoglobin; sulfhemoglobin, quantitative
83065	Hemoglobin; thermolabile
83068	Hemoglobin; unstable, screen
83069	Hemoglobin; urine
83070	Hemosiderin, qualitative
83080	b-Hexosaminidase, each assay
83088	Histamine
83090	Homocysteine
83150	Homovanillic acid (HVA)
83491	Hydroxycorticosteroids, 17- (17-OHCS)
83497	Hydroxyindolacetic acid, 5-(HIAA)

CPT®* Codes	Description
83498	Hydroxyprogesterone, 17-d
83500	Hydroxyproline; free
83505	Hydroxyproline; total
83521	Immunoglobulin light chains (ie, kappa, lambda), free, each
83525	Insulin; total
83527	Insulin; free
83528	Intrinsic factor
83529	Interleukin-6 (IL-6)
83540	Iron
83550	Iron binding capacity
83570	Isocitric dehydrogenase (IDH)
83582	Ketogenic steroids, fractionation
83586	Ketosteroids, 17- (17-KS); total
83593	Ketosteroids, 17- (17-KS); fractionation
83605	Lactate (lactic acid)
83615	Lactate dehydrogenase (LD), (LDH);
83625	Lactate dehydrogenase (LD), (LDH); isoenzymes, separation and quantitation
83630	Lactoferrin, fecal; qualitative
83631	Lactoferrin, fecal; quantitative
83632	Lactogen, human placental (HPL) human chorionic somatomammotropin
83633	Lactose, urine, qualitative
83661	Fetal lung maturity assessment; lecithin sphingomyelin (L/S) ratio
83662	Fetal lung maturity assessment; foam stability test
83663	Fetal lung maturity assessment; fluorescence polarization
83664	Fetal lung maturity assessment; lamellar body density
83670	Leucine aminopeptidase (LAP)
83690	Lipase
83695	Lipoprotein (a)
83698	Lipoprotein-associated phospholipase A2 (Lp-PLA2)
83700	Lipoprotein, blood; electrophoretic separation and quantitation
83701	Lipoprotein, blood; high resolution fractionation and quantitation of lipoproteins including lipoprotein subclasses when performed (eg, electrophoresis, ultracentrifugation)
83704	Lipoprotein, blood; quantitation of lipoprotein particle number(s) (eg, by nuclear magnetic resonance spectroscopy), includes lipoprotein particle subclass(es), when performed
83719	Lipoprotein, direct measurement; VLDL cholesterol
83722	Lipoprotein, direct measurement; small dense LDL cholesterol
83727	Luteinizing releasing factor (LRH)
83735	Magnesium
83775	Malate dehydrogenase
83785	Manganese
83789	Mass spectrometry and tandem mass spectrometry (eg, MS, MS/MS, MALDI, MS-TOF, QTOF), non-drug analyte(s) not elsewhere specified, qualitative or quantitative, each specimen
83825	Mercury, quantitative
83835	Metanephrines
83857	Methemalbumin
83861	Microfluidic analysis utilizing an integrated collection and analysis device, tear osmolarity

CPT®* Codes	Description
83864	Mucopolysaccharides, acid, quantitative
83872	Mucin, synovial fluid (Ropes test)
83873	Myelin basic protein, cerebrospinal fluid
83874	Myoglobin
83876	Myeloperoxidase (MPO)
83883	Nephelometry, each analyte not elsewhere specified
83885	Nickel
83915	Nucleotidase 5'-
83916	Oligoclonal immune (oligoclonal bands)
83918	Organic acids; total, quantitative, each specimen
83919	Organic acids; qualitative, each specimen
83921	Organic acid, single, quantitative
83930	Osmolality; blood
83935	Osmolality; urine
83937	Osteocalcin (bone g1a protein)
83945	Oxalate
83950	Oncoprotein; HER-2/neu
83951	Oncoprotein; des-gamma-carboxy-prothrombin (DCP)
83970	Parathormone (parathyroid hormone)
83986	pH; body fluid, not otherwise specified
83987	pH; exhaled breath condensate
83992	Phencyclidine (PCP)
84035	Phenylketones, qualitative
84060	Phosphatase, acid; total
84066	Phosphatase, acid; prostatic
84075	Phosphatase, alkaline;
84078	Phosphatase, alkaline; heat stable (total not included)
84080	Phosphatase, alkaline; isoenzymes
84081	Phosphatidylglycerol
84085	Phosphogluconate, 6-, dehydrogenase, RBC
84087	Phosphohexose isomerase
84100	Phosphorus inorganic (phosphate);
84105	Phosphorus inorganic (phosphate); urine
84106	Porphobilinogen, urine; qualitative
84110	Porphobilinogen, urine; quantitative
84112	Evaluation of cervicovaginal fluid for specific amniotic fluid protein(s) (eg, placental alpha microglobulin-1 [PAMG-1], placental protein 12 [PP12], alpha-fetoprotein), qualitative, each specimen
84119	Porphyrins, urine; qualitative
84120	Porphyrins, urine; quantitation and fractionation
84126	Porphyrins, feces, quantitative
84132	Potassium; serum, plasma or whole blood
84133	Potassium; urine
84134	Prealbumin
84135	Pregnanediol
84138	Pregnanetriol
84140	Pregnenolone
84143	17-hydroxypregnenolone
84145	Procalcitonin (PCT)
84150	Prostaglandin, each

CPT®* Codes	Description
84155	Protein, total, except by refractometry; serum, plasma or whole blood
84156	Protein, total, except by refractometry; urine
84157	Protein, total, except by refractometry; other source (eg, synovial fluid, cerebrospinal fluid)
84160	Protein, total, by refractometry, any source
84163	Pregnancy-associated plasma protein-A (PAPP-A)
84165	Protein; electrophoretic fractionation and quantitation, serum
84166	Protein; electrophoretic fractionation and quantitation, other fluids with concentration (eg, urine, CSF)
84181	Protein; Western Blot, with interpretation and report, blood or other body fluid
84182	Protein; Western Blot, with interpretation and report, blood or other body fluid, immunological probe for band identification, each
84202	Protoporphyrin, RBC; quantitative
84203	Protoporphyrin, RBC; screen
84206	Proinsulin
84207	Pyridoxal phosphate (Vitamin B-6)
84210	Pyruvate
84220	Pyruvate kinase
84228	Quinine
84233	Receptor assay; estrogen
84234	Receptor assay; progesterone
84235	Receptor assay; endocrine, other than estrogen or progesterone (specify hormone)
84238	Receptor assay; non-endocrine (specify receptor)
84244	Renin
84252	Riboflavin (Vitamin B-2)
84255	Selenium
84260	Serotonin
84270	Sex hormone binding globulin (SHBG)
84275	Sialic acid
84285	Silica
84295	Sodium; serum, plasma or whole blood
84300	Sodium; urine
84302	Sodium; other source
84305	Somatomedin
84307	Somatostatin
84311	Spectrophotometry, analyte not elsewhere specified
84315	Specific gravity (except urine)
84375	Sugars, chromatographic, TLC or paper chromatography
84376	Sugars (mono-, di-, and oligosaccharides); single qualitative, each specimen
84377	Sugars (mono-, di-, and oligosaccharides); multiple qualitative, each specimen
84378	Sugars (mono-, di-, and oligosaccharides); single quantitative, each specimen
84379	Sugars (mono-, di-, and oligosaccharides); multiple quantitative, each specimen
84392	Sulfate, urine
84425	Thiamine (Vitamin B-1)
84430	Thiocyanate
84431	Thromboxane metabolite(s), including thromboxane if performed, urine
84432	Thyroglobulin
84433	Thiopurine S-methyltransferase (TPMT)

CPT®* Codes	Description
84439	Thyroxine; free
84442	Thyroxine binding globulin (TBG)
84445	Thyroid stimulating immune globulins (TSI)
84446	Tocopherol alpha (Vitamin E)
84449	Transcortin (cortisol binding globulin)
84450	Transferase; aspartate amino (AST) (SGOT)
84460	Transferase; alanine amino (ALT) (SGPT)
84466	Transferrin
84479	Thyroid hormone (T3 or T4) uptake or thyroid hormone binding ratio (THBR)
84480	Triiodothyronine T3; total (TT-3)
84481	Triiodothyronine T3; free
84482	Triiodothyronine T3; reverse
84484	Troponin, quantitative
84485	Trypsin; duodenal fluid
84488	Trypsin; feces, qualitative
84490	Trypsin; feces, quantitative, 24-hour collection
84510	Tyrosine
84512	Troponin, qualitative
84520	Urea nitrogen; quantitative
84525	Urea nitrogen; semiquantitative (eg, reagent strip test)
84540	Urea nitrogen, urine
84545	Urea nitrogen, clearance
84550	Uric acid; blood
84560	Uric acid; other source
84577	Urobilinogen, feces, quantitative
84578	Urobilinogen, urine; qualitative
84580	Urobilinogen, urine; quantitative, timed specimen
84583	Urobilinogen, urine; semiquantitative
84585	Vanillylmandelic acid (VMA), urine
84586	Vasoactive intestinal peptide (VIP)
84588	Vasopressin (antidiuretic hormone, ADH)
84590	Vitamin A
84591	Vitamin, not otherwise specified
84597	Vitamin K
84600	Volatiles (eg, acetic anhydride, diethylether)
84620	Xylose absorption test, blood and/or urine
84630	Zinc
84681	C-peptide
84999	Unlisted chemistry procedure
85002	Bleeding time
85004	Blood count; automated differential WBC count
85007	Blood count; blood smear, microscopic examination with manual differential WBC count
85008	Blood count; blood smear, microscopic examination without manual differential WBC count
85009	Blood count; manual differential WBC count, buffy coat
85032	Blood count; manual cell count (erythrocyte, leukocyte, or platelet) each
85044	Blood count; reticulocyte, manual
85045	Blood count; reticulocyte, automated

CPT®* Codes	Description
85046	Blood count; reticulocytes, automated, including 1 or more cellular parameters (eg, reticulocyte hemoglobin content [CHr], immature reticulocyte fraction [IRF], reticulocyte volume [MRV], RNA content), direct measurement
85048	Blood count; leukocyte (WBC), automated
85049	Blood count; platelet, automated
85055	Reticulated platelet assay
85060	Blood smear, peripheral, interpretation by physician with written report
85097	Bone marrow, smear interpretation
85130	Chromogenic substrate assay
85170	Clot retraction
85175	Clot lysis time, whole blood dilution
85210	Clotting; factor II, prothrombin, specific
85220	Clotting; factor V (AcG or proaccelerin), labile factor
85230	Clotting; factor VII (proconvertin, stable factor)
85240	Clotting; factor VIII (AHG), 1-stage
85244	Clotting; factor VIII related antigen
85245	Clotting; factor VIII, VW factor, ristocetin cofactor
85246	Clotting; factor VIII, VW factor antigen
85247	Clotting; factor VIII, von Willebrand factor, multimetric analysis
85250	Clotting; factor IX (PTC or Christmas)
85260	Clotting; factor X (Stuart-Prower)
85270	Clotting; factor XI (PTA)
85280	Clotting; factor XII (Hageman)
85290	Clotting; factor XIII (fibrin stabilizing)
85291	Clotting; factor XIII (fibrin stabilizing), screen solubility
85292	Clotting; prekallikrein assay (Fletcher factor assay)
85293	Clotting; high molecular weight kininogen assay (Fitzgerald factor assay)
85300	Clotting inhibitors or anticoagulants; antithrombin III, activity
85301	Clotting inhibitors or anticoagulants; antithrombin III, antigen assay
85302	Clotting inhibitors or anticoagulants; protein C, antigen
85303	Clotting inhibitors or anticoagulants; protein C, activity
85305	Clotting inhibitors or anticoagulants; protein S, total
85306	Clotting inhibitors or anticoagulants; protein S, free
85307	Activated Protein C (APC) resistance assay
85335	Factor inhibitor test
85337	Thrombomodulin
85345	Coagulation time; Lee and White
85347	Coagulation time; activated
85348	Coagulation time; other methods
85360	Euglobulin lysis
85362	Fibrin(ogen) degradation (split) products (FDP) (FSP); agglutination slide, semiquantitative
85366	Fibrin(ogen) degradation (split) products (FDP) (FSP); paracoagulation
85370	Fibrin(ogen) degradation (split) products (FDP) (FSP); quantitative
85378	Fibrin degradation products, D-dimer; qualitative or semiquantitative
85379	Fibrin degradation products, D-dimer; quantitative
85380	Fibrin degradation products, D-dimer; ultrasensitive (eg, for evaluation for venous thromboembolism), qualitative or semiquantitative
85384	Fibrinogen; activity
85385	Fibrinogen; antigen

CPT®* Codes	Description
85390	Fibrinolysins or coagulopathy screen, interpretation and report
85396	Coagulation/fibrinolysis assay, whole blood (eg, viscoelastic clot assessment), including use of any pharmacologic additive(s), as indicated, including interpretation and written report, per day
85397	Coagulation and fibrinolysis, functional activity, not otherwise specified (eg, ADAMTS-13), each analyte
85400	Fibrinolytic factors and inhibitors; plasmin
85410	Fibrinolytic factors and inhibitors; alpha-2 antiplasmin
85415	Fibrinolytic factors and inhibitors; plasminogen activator
85420	Fibrinolytic factors and inhibitors; plasminogen, except antigenic assay
85421	Fibrinolytic factors and inhibitors; plasminogen, antigenic assay
85441	Heinz bodies; direct
85445	Heinz bodies; induced, acetyl phenylhydrazine
85460	Hemoglobin or RBCs, fetal, for fetomaternal hemorrhage; differential lysis (Kleihauer-Betke)
85461	Hemoglobin or RBCs, fetal, for fetomaternal hemorrhage; rosette
85475	Hemolysin, acid
85520	Heparin assay
85525	Heparin neutralization
85530	Heparin-protamine tolerance test
85536	Iron stain, peripheral blood
85540	Leukocyte alkaline phosphatase with count
85547	Mechanical fragility, RBC
85549	Muramidase
85555	Osmotic fragility, RBC; unincubated
85557	Osmotic fragility, RBC; incubated
85576	Platelet, aggregation (in vitro), each agent
85597	Phospholipid neutralization; platelet
85598	Phospholipid neutralization; hexagonal phospholipid
85610	Prothrombin time;
85611	Prothrombin time; substitution, plasma fractions, each
85612	Russell viper venom time (includes venom); undiluted
85613	Russell viper venom time (includes venom); diluted
85635	Reptilase test
85651	Sedimentation rate, erythrocyte; non-automated
85652	Sedimentation rate, erythrocyte; automated
85670	Thrombin time; plasma
85675	Thrombin time; titer
85705	Thromboplastin inhibition, tissue
85730	Thromboplastin time, partial (PTT); plasma or whole blood
85732	Thromboplastin time, partial (PTT); substitution, plasma fractions, each
85810	Viscosity
85999	Unlisted hematology and coagulation procedure
86000	Agglutinins, febrile (eg, Brucella, Francisella, Murine typhus, Q fever, Rocky Mountain spotted fever, scrub typhus), each antigen
86001	Allergen specific IgG quantitative or semiquantitative, each allergen
86005	Allergen specific IgE; qualitative, multiallergen screen (eg, disk, sponge, card)
86008	Allergen specific IgE; quantitative or semiquantitative, recombinant or purified component, each
86015	Actin (smooth muscle) antibody (ASMA), each

CPT®* Codes	Description
86021	Antibody identification; leukocyte antibodies
86022	Antibody identification; platelet antibodies
86023	Antibody identification; platelet associated immunoglobulin assay
86036	Antineutrophil cytoplasmic antibody (ANCA); screen, each antibody
86037	Antineutrophil cytoplasmic antibody (ANCA); titer, each antibody
86038	Antinuclear antibodies (ANA);
86039	Antinuclear antibodies (ANA); titer
86041	Acetylcholine receptor (AChR); binding antibody
86042	Acetylcholine receptor (AChR); blocking antibody
86043	Acetylcholine receptor (AChR); modulating antibody
86051	Aquaporin-4 (neuromyelitis optica [NMO]) antibody; enzyme-linked immunosorbent immunoassay (ELISA)
86052	Aquaporin-4 (neuromyelitis optica [NMO]) antibody; cell-based immunofluorescence assay (CBA), each
86053	Aquaporin-4 (neuromyelitis optica [NMO]) antibody; flow cytometry (ie, fluorescence-activated cell sorting [FACS]), each
86060	Antistreptolysin 0; titer
86063	Antistreptolysin 0; screen
86077	Blood bank physician services; difficult cross match and/or evaluation of irregular antibody(s), interpretation and written report
86078	Blood bank physician services; investigation of transfusion reaction including suspicion of transmissible disease, interpretation and written report
86079	Blood bank physician services; authorization for deviation from standard blood banking procedures (eg, use of outdated blood, transfusion of Rh incompatible units), with written report
86140	C-reactive protein;
86141	C-reactive protein; high sensitivity (hsCRP)
86146	Beta 2 Glycoprotein I antibody, each
86147	Cardiolipin (phospholipid) antibody, each Ig class
86148	Anti-phosphatidylserine (phospholipid) antibody
86155	Chemotaxis assay, specify method
86156	Cold agglutinin; screen
86157	Cold agglutinin; titer
86160	Complement; antigen, each component
86161	Complement; functional activity, each component
86162	Complement; total hemolytic (CH50)
86171	Complement fixation tests, each antigen
86200	Cyclic citrullinated peptide (CCP), antibody
86215	Deoxyribonuclease, antibody
86225	Deoxyribonucleic acid (DNA) antibody; native or double stranded
86226	Deoxyribonucleic acid (DNA) antibody; single stranded
86231	Endomysial antibody (EMA), each immunoglobulin (Ig) class
86235	Extractable nuclear antigen, antibody to, any method (eg, nRNP, SS-A, SS-B, Sm, RNP, Sc170, J01), each antibody
86255	Fluorescent noninfectious agent antibody; screen, each antibody
86256	Fluorescent noninfectious agent antibody; titer, each antibody
86258	Gliadin (deamidated) (DGP) antibody, each immunoglobulin (Ig) class
86277	Growth hormone, human (HGH), antibody
86280	Hemagglutination inhibition test (HAI)

CPT®* Codes	Description
86294	Immunoassay for tumor antigen, qualitative or semiquantitative (eg, bladder tumor antigen)
86300	Immunoassay for tumor antigen, quantitative; CA 15-3 (27.29)
86301	Immunoassay for tumor antigen, quantitative; CA 19-9
86304	Immunoassay for tumor antigen, quantitative; CA 125
86305	Human epididymis protein 4 (HE4)
86308	Heterophile antibodies; screening
86309	Heterophile antibodies; titer
86310	Heterophile antibodies; titers after absorption with beef cells and guinea pig kidney
86316	Immunoassay for tumor antigen, other antigen, quantitative (eg, CA 50, 72-4, 549), each
86317	Immunoassay for infectious agent antibody, quantitative, not otherwise specified
86318	Immunoassay for infectious agent antibody(ies), qualitative or semiquantitative, single-step method (eg, reagent strip);
86320	Immunoelectrophoresis; serum
86325	Immunoelectrophoresis; other fluids (eg, urine, cerebrospinal fluid) with concentration
86329	Immunodiffusion; not elsewhere specified
86331	Immunodiffusion; gel diffusion, qualitative (Ouchterlony), each antigen or antibody
86332	Immune complex assay
86334	Immunofixation electrophoresis; serum
86335	Immunofixation electrophoresis; other fluids with concentration (eg, urine, CSF)
86336	Inhibin A
86337	Insulin antibodies
86340	Intrinsic factor antibodies
86341	Islet cell antibody
86343	Leukocyte histamine release test (LHR)
86344	Leukocyte phagocytosis
86352	Cellular function assay involving stimulation (eg, mitogen or antigen) and detection of biomarker (eg, ATP)
86353	Lymphocyte transformation, mitogen (phytomitogen) or antigen induced blastogenesis
86362	Myelin oligodendrocyte glycoprotein (MOG-IgG1) antibody; cell-based immunofluorescence assay (CBA), each
86363	Myelin oligodendrocyte glycoprotein (MOG-IgG1) antibody; flow cytometry (ie, fluorescence-activated cell sorting [FACS]), each
86364	Tissue transglutaminase, each immunoglobulin (Ig) class
86366	Muscle-specific kinase (MuSK) antibody
86376	Microsomal antibodies (eg, thyroid or liver-kidney), each
86381	Mitochondrial antibody (eg, M2), each
86382	Neutralization test, viral
86384	Nitroblue tetrazolium dye test (NTD)
86386	Nuclear Matrix Protein 22 (NMP22), qualitative
86403	Particle agglutination; screen, each antibody
86406	Particle agglutination; titer, each antibody
86430	Rheumatoid factor; qualitative

CPT®* Codes	Description
86431	Rheumatoid factor; quantitative
86485	Skin test; candida
86486	Skin test; unlisted antigen, each
86510	Skin test; histoplasmosis
86590	Streptokinase, antibody
86596	Voltage-gated calcium channel antibody, each
86602	Antibody; actinomyces
86603	Antibody; adenovirus
86606	Antibody; Aspergillus
86609	Antibody; bacterium, not elsewhere specified
86611	Antibody; Bartonella
86612	Antibody; Blastomyces
86615	Antibody; Bordetella
86617	Antibody; Borrelia burgdorferi (Lyme disease) confirmatory test (eg, Western Blot or immunoblot)
86618	Antibody; Borrelia burgdorferi (Lyme disease)
86619	Antibody; Borrelia (relapsing fever)
86622	Antibody; Brucella
86625	Antibody; Campylobacter
86628	Antibody; Candida
86635	Antibody; Coccidioides
86638	Antibody; Coxiella burnetii (Q fever)
86641	Antibody; Cryptococcus
86644	Antibody; cytomegalovirus (CMV)
86645	Antibody; cytomegalovirus (CMV), IgM
86648	Antibody; Diphtheria
86651	Antibody; encephalitis, California (La Crosse)
86652	Antibody; encephalitis, Eastern equine
86653	Antibody; encephalitis, St. Louis
86654	Antibody; encephalitis, Western equine
86658	Antibody; enterovirus (eg, coxsackie, echo, polio)
86663	Antibody; Epstein-Barr (EB) virus, early antigen (EA)
86664	Antibody; Epstein-Barr (EB) virus, nuclear antigen (EBNA)
86665	Antibody; Epstein-Barr (EB) virus, viral capsid (VCA)
86666	Antibody; Ehrlichia
86668	Antibody; Francisella tularensis
86671	Antibody; fungus, not elsewhere specified
86674	Antibody; Giardia lamblia
86677	Antibody; Helicobacter pylori
86682	Antibody; helminth, not elsewhere specified
86684	Antibody; Haemophilus influenza
86687	Antibody; HTLV-I
86688	Antibody; HTLV-II
86689	Antibody; HTLV or HIV antibody, confirmatory test (eg, Western Blot)
86692	Antibody; hepatitis, delta agent
86694	Antibody; herpes simplex, non-specific type test
86695	Antibody; herpes simplex, type 1
86696	Antibody; herpes simplex, type 2
86698	Antibody; histoplasma
86707	Hepatitis Be antibody (HBeAb)

CPT®* Codes	Description
86708	Hepatitis A antibody (HAAb)
86709	Hepatitis A antibody (HAAb), IgM antibody
86710	Antibody; influenza virus
86711	Antibody; JC (John Cunningham) virus
86713	Antibody; Legionella
86717	Antibody; Leishmania
86720	Antibody; Leptospira
86723	Antibody; Listeria monocytogenes
86727	Antibody; lymphocytic choriomeningitis
86732	Antibody; mucormycosis
86735	Antibody; mumps
86738	Antibody; mycoplasma
86741	Antibody; Neisseria meningitidis
86744	Antibody; Nocardia
86747	Antibody; parvovirus
86750	Antibody; Plasmodium (malaria)
86753	Antibody; protozoa, not elsewhere specified
86756	Antibody; respiratory syncytial virus
86757	Antibody; Rickettsia
86759	Antibody; rotavirus
86762	Antibody; rubella
86765	Antibody; rubeola
86768	Antibody; Salmonella
86771	Antibody; Shigella
86774	Antibody; tetanus
86777	Antibody; Toxoplasma
86778	Antibody; Toxoplasma, IgM
86784	Antibody; Trichinella
86787	Antibody; varicella-zoster
86788	Antibody; West Nile virus, IgM
86789	Antibody; West Nile virus
86790	Antibody; virus, not elsewhere specified
86793	Antibody; Yersinia
86794	Antibody; Zika virus, IgM
86800	Thyroglobulin antibody
86804	Hepatitis C antibody; confirmatory test (eg, immunoblot)
86805	Lymphocytotoxicity assay, visual crossmatch; with titration
86806	Lymphocytotoxicity assay, visual crossmatch; without titration
86812	HLA typing; A, B, or C (eg, A10, B7, B27), single antigen
86813	HLA typing; A, B, or C, multiple antigens
86816	HLA typing; DR/DQ, single antigen
86817	HLA typing; DR/DQ, multiple antigens
86821	HLA typing; lymphocyte culture, mixed (MLC)
86825	Human leukocyte antigen (HLA) crossmatch, non-cytotoxic (eg, using flow cytometry); first serum sample or dilution
86826	Human leukocyte antigen (HLA) crossmatch, non-cytotoxic (eg, using flow cytometry); each additional serum sample or sample dilution (List separately in addition to primary procedure)

CPT®* Codes	Description
86828	Antibody to human leukocyte antigens (HLA), solid phase assays (eg, microspheres or beads, ELISA, flow cytometry); qualitative assessment of the presence or absence of antibody(ies) to HLA Class I and Class II HLA antigens
86829	Antibody to human leukocyte antigens (HLA), solid phase assays (eg, microspheres or beads, ELISA, Flow cytometry); qualitative assessment of the presence or absence of antibody(ies) to HLA Class I or Class II HLA antigens
86830	Antibody to human leukocyte antigens (HLA), solid phase assays (eg, microspheres or beads, ELISA, Flow cytometry); antibody identification by qualitative panel using complete HLA phenotypes, HLA Class I
86831	Antibody to human leukocyte antigens (HLA), solid phase assays (eg, microspheres or beads, ELISA, Flow cytometry); antibody identification by qualitative panel using complete HLA phenotypes, HLA Class II
86832	Antibody to human leukocyte antigens (HLA), solid phase assays (eg, microspheres or beads, ELISA, Flow cytometry); high-definition qualitative panel for identification of antibody specificities (eg, individual antigen per bead methodology), HLA Class I
86833	Antibody to human leukocyte antigens (HLA), solid phase assays (eg, microspheres or beads, ELISA, Flow cytometry); high-definition qualitative panel for identification of antibody specificities (eg, individual antigen per bead methodology), HLA Class II
86834	Antibody to human leukocyte antigens (HLA), solid phase assays (eg, microspheres or beads, ELISA, Flow cytometry); semi-quantitative panel (eg, titer), HLA Class I
86835	Antibody to human leukocyte antigens (HLA), solid phase assays (eg, microspheres or beads, ELISA, Flow cytometry); semi-quantitative panel (eg, titer), HLA Class II
86849	Unlisted immunology procedure
86850	Antibody screen, RBC, each serum technique
86860	Antibody elution (RBC), each elution
86870	Antibody identification, RBC antibodies, each panel for each serum technique
86880	Antihuman globulin test (Coombs test); direct, each antiserum
86885	Antihuman globulin test (Coombs test); indirect, qualitative, each reagent red cell
86886	Antihuman globulin test (Coombs test); indirect, each antibody titer
86890	Autologous blood or component, collection processing and storage; predeposited
86891	Autologous blood or component, collection processing and storage; intra- or postoperative salvage
86902	Blood typing, serologic; antigen testing of donor blood using reagent serum, each antigen test
86904	Blood typing, serologic; antigen screening for compatible unit using patient serum, per unit screened
86905	Blood typing, serologic; RBC antigens, other than ABO or Rh (D), each
86906	Blood typing, serologic; Rh phenotyping, complete
86910	Blood typing, for paternity testing, per individual; ABO, Rh and MN
86911	Blood typing, for paternity testing, per individual; each additional antigen system
86920	Compatibility test each unit; immediate spin technique
86921	Compatibility test each unit; incubation technique
86922	Compatibility test each unit; antiglobulin technique
86923	Compatibility test each unit; electronic

CPT®* Codes	Description
86927	Fresh frozen plasma, thawing, each unit
86930	Frozen blood, each unit; freezing (includes preparation)
86931	Frozen blood, each unit; thawing
86932	Frozen blood, each unit; freezing (includes preparation) and thawing
86940	Hemolysins and agglutinins; auto, screen, each
86941	Hemolysins and agglutinins; incubated
86945	Irradiation of blood product, each unit
86960	Volume reduction of blood or blood product (eg, red blood cells or platelets), each unit
86965	Pooling of platelets or other blood products
86970	Pretreatment of RBCs for use in RBC antibody detection, identification, and/or compatibility testing; incubation with chemical agents or drugs, each
86971	Pretreatment of RBCs for use in RBC antibody detection, identification, and/or compatibility testing; incubation with enzymes, each
86972	Pretreatment of RBCs for use in RBC antibody detection, identification, and/or compatibility testing; by density gradient separation
86975	Pretreatment of serum for use in RBC antibody identification; incubation with drugs, each
86976	Pretreatment of serum for use in RBC antibody identification; by dilution
86977	Pretreatment of serum for use in RBC antibody identification; incubation with inhibitors, each
86978	Pretreatment of serum for use in RBC antibody identification; by differential red cell absorption using patient RBCs or RBCs of known phenotype, each absorption
86985	Splitting of blood or blood products, each unit
86999	Unlisted transfusion medicine procedure
87003	Animal inoculation, small animal, with observation and dissection
87015	Concentration (any type), for infectious agents
87040	Culture, bacterial; blood, aerobic, with isolation and presumptive identification of isolates (includes anaerobic culture, if appropriate)
87045	Culture, bacterial; stool, aerobic, with isolation and preliminary examination (eg, KIA, LIA), Salmonella and Shigella species
87046	Culture, bacterial; stool, aerobic, additional pathogens, isolation and presumptive identification of isolates, each plate
87070	Culture, bacterial; any other source except urine, blood or stool, aerobic, with isolation and presumptive identification of isolates
87071	Culture, bacterial; quantitative, aerobic with isolation and presumptive identification of isolates, any source except urine, blood or stool
87073	Culture, bacterial; quantitative, anaerobic with isolation and presumptive identification of isolates, any source except urine, blood or stool
87075	Culture, bacterial; any source, except blood, anaerobic with isolation and presumptive identification of isolates
87076	Culture, bacterial; anaerobic isolate, additional methods required for definitive identification, each isolate
87077	Culture, bacterial; aerobic isolate, additional methods required for definitive identification, each isolate
87081	Culture, presumptive, pathogenic organisms, screening only;
87084	Culture, presumptive, pathogenic organisms, screening only; with colony estimation from density chart

CPT®* Codes	Description
87101	Culture, fungi (mold or yeast) isolation, with presumptive identification of isolates; skin, hair, or nail
87102	Culture, fungi (mold or yeast) isolation, with presumptive identification of isolates; other source (except blood)
87103	Culture, fungi (mold or yeast) isolation, with presumptive identification of isolates; blood
87106	Culture, fungi, definitive identification, each organism; yeast
87107	Culture, fungi, definitive identification, each organism; mold
87109	Culture, mycoplasma, any source
87116	Culture, tubercle or other acid-fast bacilli (eg, TB, AFB, mycobacteria) any source, with isolation and presumptive identification of isolates
87118	Culture, mycobacterial, definitive identification, each isolate
87140	Culture, typing; immunofluorescent method, each antiserum
87143	Culture, typing; gas liquid chromatography (GLC) or high-pressure liquid chromatography (HPLC) method
87147	Culture, typing; immunologic method, other than immunofluorescence (eg, agglutination grouping), per antiserum
87149	Culture, typing; identification by nucleic acid (DNA or RNA) probe, direct probe technique, per culture or isolate, each organism probed
87150	Culture, typing; identification by nucleic acid (DNA or RNA) probe, amplified probe technique, per culture or isolate, each organism probed
87152	Culture, typing; identification by pulse field gel typing
87153	Culture, typing; identification by nucleic acid sequencing method, each isolate (eg, sequencing of the 16S rRNA gene)
87154	Culture, typing; identification of blood pathogen and resistance typing, when performed, by nucleic acid (DNA or RNA) probe, multiplexed amplified probe technique including multiplex reverse transcription, when performed, per culture or isolate, 6 or more targets
87158	Culture, typing; other methods
87164	Dark field examination, any source (eg, penile, vaginal, oral, skin); includes specimen collection
87166	Dark field examination, any source (eg, penile, vaginal, oral, skin); without collection
87168	Macroscopic examination; arthropod
87169	Macroscopic examination; parasite
87172	Pinworm exam (eg, cellophane tape prep)
87176	Homogenization, tissue, for culture
87177	Ova and parasites, direct smears, concentration and identification
87181	Susceptibility studies, antimicrobial agent; agar dilution method, per agent (eg, antibiotic gradient strip)
87184	Susceptibility studies, antimicrobial agent; disk method, per plate (12 or fewer agents)
87185	Susceptibility studies, antimicrobial agent; enzyme detection (eg, beta lactamase), per enzyme
87186	Susceptibility studies, antimicrobial agent; microdilution or agar dilution (minimum inhibitory concentration [MIC] or breakpoint), each multi-antimicrobial, per plate
87187	Susceptibility studies, antimicrobial agent; microdilution or agar dilution, minimum lethal concentration (MLC), each plate (List separately in addition to code for primary procedure)

CPT®* Codes	Description
87188	Susceptibility studies, antimicrobial agent; macrobroth dilution method, each agent
87190	Susceptibility studies, antimicrobial agent; mycobacteria, proportion method, each agent
87197	Serum bactericidal titer (Schlichter test)
87205	Smear, primary source with interpretation; Gram or Giemsa stain for bacteria, fungi, or cell types
87206	Smear, primary source with interpretation; fluorescent and/or acid-fast stain for bacteria, fungi, parasites, viruses or cell types
87207	Smear, primary source with interpretation; special stain for inclusion bodies or parasites (eg, malaria, coccidia, microsporidia, trypanosomes, herpes viruses)
87209	Smear, primary source with interpretation; complex special stain (eg, trichrome, iron hemotoxylin) for ova and parasites
87210	Smear, primary source with interpretation; wet mount for infectious agents (eg, saline, India ink, KOH preps)
87220	Tissue examination by KOH slide of samples from skin, hair, or nails for fungi or ectoparasite ova or mites (eg, scabies)
87230	Toxin or antitoxin assay, tissue culture (eg, Clostridium difficile toxin)
87250	Virus isolation; inoculation of embryonated eggs, or small animal, includes observation and dissection
87252	Virus isolation; tissue culture inoculation, observation, and presumptive identification by cytopathic effect
87253	Virus isolation; tissue culture, additional studies or definitive identification (eg, hemabsorption, neutralization, immunofluorescence stain), each isolate
87254	Virus isolation; centrifuge enhanced (shell vial) technique, includes identification with immunofluorescence stain, each virus
87255	Virus isolation; including identification by non-immunologic method, other than by cytopathic effect (eg, virus specific enzymatic activity)
87260	Infectious agent antigen detection by immunofluorescent technique; adenovirus
87265	Infectious agent antigen detection by immunofluorescent technique; Bordetella pertussis/parapertussis
87267	Infectious agent antigen detection by immunofluorescent technique; Enterovirus, direct fluorescent antibody (DFA)
87269	Infectious agent antigen detection by immunofluorescent technique; giardia
87271	Infectious agent antigen detection by immunofluorescent technique; Cytomegalovirus, direct fluorescent antibody (DFA)
87272	Infectious agent antigen detection by immunofluorescent technique; cryptosporidium
87273	Infectious agent antigen detection by immunofluorescent technique; Herpes simplex virus type 2
87274	Infectious agent antigen detection by immunofluorescent technique; Herpes simplex virus type 1
87275	Infectious agent antigen detection by immunofluorescent technique; influenza B virus
87276	Infectious agent antigen detection by immunofluorescent technique; influenza A virus
87278	Infectious agent antigen detection by immunofluorescent technique; Legionella pneumophila
87279	Infectious agent antigen detection by immunofluorescent technique; Parainfluenza virus, each type

CPT®* Codes	Description
87280	Infectious agent antigen detection by immunofluorescent technique; respiratory syncytial virus
87281	Infectious agent antigen detection by immunofluorescent technique; Pneumocystis carinii
87283	Infectious agent antigen detection by immunofluorescent technique; Rubeola
87285	Infectious agent antigen detection by immunofluorescent technique; Treponema pallidum
87290	Infectious agent antigen detection by immunofluorescent technique; Varicella zoster virus
87299	Infectious agent antigen detection by immunofluorescent technique; not otherwise specified, each organism
87300	Infectious agent antigen detection by immunofluorescent technique, polyvalent for multiple organisms, each polyvalent antiserum
87301	Infectious agent antigen detection by immunoassay technique (eg, enzyme immunoassay [EIA], enzyme-linked immunosorbent assay [ELISA], fluorescence immunoassay [FIA], immunochemiluminometric assay [IMCA]), qualitative or semiquantitative; adenovirus enteric types 40/41
87305	Infectious agent antigen detection by immunoassay technique (eg, enzyme immunoassay [EIA], enzyme-linked immunosorbent assay [ELISA], fluorescence immunoassay [FIA], immunochemiluminometric assay [IMCA]), qualitative or semiquantitative; Aspergillus
87324	Infectious agent antigen detection by immunoassay technique (eg, enzyme immunoassay [EIA], enzyme-linked immunosorbent assay [ELISA], fluorescence immunoassay [FIA], immunochemiluminometric assay [IMCA]), qualitative or semiquantitative; Clostridium difficile toxin(s)
87327	Infectious agent antigen detection by immunoassay technique (eg, enzyme immunoassay [EIA], enzyme-linked immunosorbent assay [ELISA], fluorescence immunoassay [FIA], immunochemiluminometric assay [IMCA]), qualitative or semiquantitative; Cryptococcus neoformans
87328	Infectious agent antigen detection by immunoassay technique (eg, enzyme immunoassay [EIA], enzyme-linked immunosorbent assay [ELISA], fluorescence immunoassay [FIA], immunochemiluminometric assay [IMCA]), qualitative or semiquantitative; cryptosporidium
87329	Infectious agent antigen detection by immunoassay technique (eg, enzyme immunoassay [EIA], enzyme-linked immunosorbent assay [ELISA], fluorescence immunoassay [FIA], immunochemiluminometric assay [IMCA]), qualitative or semiquantitative; giardia
87332	Infectious agent antigen detection by immunoassay technique (eg, enzyme immunoassay [EIA], enzyme-linked immunosorbent assay [ELISA], fluorescence immunoassay [FIA], immunochemiluminometric assay [IMCA]), qualitative or semiquantitative; cytomegalovirus
87335	Infectious agent antigen detection by immunoassay technique (eg, enzyme immunoassay [EIA], enzyme-linked immunosorbent assay [ELISA], fluorescence immunoassay [FIA], immunochemiluminometric assay [IMCA]), qualitative or semiquantitative; Escherichia coli 0157
87336	Infectious agent antigen detection by immunoassay technique (eg, enzyme immunoassay [EIA], enzyme-linked immunosorbent assay [ELISA], fluorescence immunoassay [FIA], immunochemiluminometric assay [IMCA]), qualitative or semiquantitative; Entamoeba histolytica dispar group
87337	Infectious agent antigen detection by immunoassay technique (eg, enzyme immunoassay [EIA], enzyme-linked immunosorbent assay [ELISA],

CPT®* Codes	Description
	fluorescence immunoassay [FIA], immunochemiluminometric assay [IMCA]), qualitative or semiquantitative; Entamoeba histolytica group
87338	Infectious agent antigen detection by immunoassay technique (eg, enzyme immunoassay [EIA], enzyme-linked immunosorbent assay [ELISA], fluorescence immunoassay [FIA], immunochemiluminometric assay [IMCA]), qualitative or semiquantitative; Helicobacter pylori, stool
87339	Infectious agent antigen detection by immunoassay technique (eg, enzyme immunoassay [EIA], enzyme-linked immunosorbent assay [ELISA], fluorescence immunoassay [FIA], immunochemiluminometric assay [IMCA]), qualitative or semiquantitative; Helicobacter pylori
87350	Infectious agent antigen detection by immunoassay technique (eg, enzyme immunoassay [EIA], enzyme-linked immunosorbent assay [ELISA], fluorescence immunoassay [FIA], immunochemiluminometric assay [IMCA]), qualitative or semiquantitative; hepatitis Be antigen (HBeAg)
87380	Infectious agent antigen detection by immunoassay technique (eg, enzyme immunoassay [EIA], enzyme-linked immunosorbent assay [ELISA], fluorescence immunoassay [FIA], immunochemiluminometric assay [IMCA]), qualitative or semiquantitative; hepatitis, delta agent
87385	Infectious agent antigen detection by immunoassay technique (eg, enzyme immunoassay [EIA], enzyme-linked immunosorbent assay [ELISA], fluorescence immunoassay [FIA], immunochemiluminometric assay [IMCA]), qualitative or semiquantitative; Histoplasma capsulatum
87400	Infectious agent antigen detection by immunoassay technique (eg, enzyme immunoassay [EIA], enzyme-linked immunosorbent assay [ELISA], fluorescence immunoassay [FIA], immunochemiluminometric assay [IMCA]), qualitative or semiquantitative; Influenza, A or B, each
87420	Infectious agent antigen detection by immunoassay technique (eg, enzyme immunoassay [EIA], enzyme-linked immunosorbent assay [ELISA], fluorescence immunoassay [FIA], immunochemiluminometric assay [IMCA]), qualitative or semiquantitative; respiratory syncytial virus
87425	Infectious agent antigen detection by immunoassay technique (eg, enzyme immunoassay [EIA], enzyme-linked immunosorbent assay [ELISA], fluorescence immunoassay [FIA], immunochemiluminometric assay [IMCA]), qualitative or semiquantitative; rotavirus
87427	Infectious agent antigen detection by immunoassay technique (eg, enzyme immunoassay [EIA], enzyme-linked immunosorbent assay [ELISA], fluorescence immunoassay [FIA], immunochemiluminometric assay [IMCA]), qualitative or semiquantitative; Shiga-like toxin
87430	Infectious agent antigen detection by immunoassay technique (eg, enzyme immunoassay [EIA], enzyme-linked immunosorbent assay [ELISA], fluorescence immunoassay [FIA], immunochemiluminometric assay [IMCA]), qualitative or semiquantitative; Streptococcus, group A
87449	Infectious agent antigen detection by immunoassay technique (eg, enzyme immunoassay [EIA], enzyme-linked immunosorbent assay [ELISA], fluorescence immunoassay [FIA], immunochemiluminometric assay [IMCA]), qualitative or semiquantitative; not otherwise specified, each organism
87451	Infectious agent antigen detection by immunoassay technique (eg, enzyme immunoassay [EIA], enzyme-linked immunosorbent assay [ELISA], fluorescence immunoassay [FIA], immunochemiluminometric assay [IMCA]), qualitative or semiquantitative; polyvalent for multiple organisms, each polyvalent antiserum

CPT®* Codes	Description
87467	Infectious agent antigen detection by immunoassay technique (eg, enzyme immunoassay [EIA], enzyme-linked immunosorbent assay [ELISA], fluorescence immunoassay [FIA], immunochemiluminometric assay [IMCA]), qualitative or semiquantitative; hepatitis B surface antigen (HBsAg), quantitative
87468	Infectious agent detection by nucleic acid (DNA or RNA); Anaplasma phagocytophilum, amplified probe technique
87469	Infectious agent detection by nucleic acid (DNA or RNA); Babesia microti, amplified probe technique
87471	Infectious agent detection by nucleic acid (DNA or RNA); Bartonella henselae and Bartonella quintana, amplified probe technique
87472	Infectious agent detection by nucleic acid (DNA or RNA); Bartonella henselae and Bartonella quintana, quantification
87475	Infectious agent detection by nucleic acid (DNA or RNA); Borrelia burgdorferi, direct probe technique
87476	Infectious agent detection by nucleic acid (DNA or RNA); Borrelia burgdorferi, amplified probe technique
87478	Infectious agent detection by nucleic acid (DNA or RNA); Borrelia miyamotoi, amplified probe technique
87483	Infectious agent detection by nucleic acid (DNA or RNA); central nervous system pathogen (eg, Neisseria meningitidis, Streptococcus pneumoniae, Listeria, Haemophilus influenzae, E. coli, Streptococcus agalactiae, enterovirus, human parechovirus, herpes simplex virus type 1 and 2, human herpesvirus 6, cytomegalovirus, varicella zoster virus, Cryptococcus), includes multiplex reverse transcription, when performed, and multiplex amplified probe technique, multiple types or subtypes, 12-25 targets
87484	Infectious agent detection by nucleic acid (DNA or RNA); Ehrlichia chaffeensis, amplified probe technique
87485	Infectious agent detection by nucleic acid (DNA or RNA); Chlamydia pneumoniae, direct probe technique
87486	Infectious agent detection by nucleic acid (DNA or RNA); Chlamydia pneumoniae, amplified probe technique
87487	Infectious agent detection by nucleic acid (DNA or RNA); Chlamydia pneumoniae, quantification
87493	Infectious agent detection by nucleic acid (DNA or RNA); Clostridium difficile, toxin gene(s), amplified probe technique
87500	Infectious agent detection by nucleic acid (DNA or RNA); vancomycin resistance (eg, enterococcus species van A, van B), amplified probe technique
87501	Infectious agent detection by nucleic acid (DNA or RNA); influenza virus, includes reverse transcription, when performed, and amplified probe technique, each type or subtype
87502	Infectious agent detection by nucleic acid (DNA or RNA); influenza virus, for multiple types or sub-types, includes multiplex reverse transcription, when performed, and multiplex amplified probe technique, first 2 types or sub-types
87503	Infectious agent detection by nucleic acid (DNA or RNA); influenza virus, for multiple types or sub-types, includes multiplex reverse transcription, when performed, and multiplex amplified probe technique, each additional influenza virus type or sub-type beyond 2 (List separately in addition to code for primary procedure)
87505	Infectious agent detection by nucleic acid (DNA or RNA); gastrointestinal pathogen (eg, Clostridium difficile, E. coli, Salmonella, Shigella, norovirus,

CPT®* Codes	Description
	Giardia), includes multiplex reverse transcription, when performed, and multiplex amplified probe technique, multiple types or subtypes, 3-5 targets
87517	Infectious agent detection by nucleic acid (DNA or RNA); hepatitis B virus, quantification
87523	Infectious agent detection by nucleic acid (DNA or RNA); hepatitis D (delta), quantification, including reverse transcription, when performed
87525	Infectious agent detection by nucleic acid (DNA or RNA); hepatitis G, direct probe technique
87526	Infectious agent detection by nucleic acid (DNA or RNA); hepatitis G, amplified probe technique
87527	Infectious agent detection by nucleic acid (DNA or RNA); hepatitis G, quantification
87531	Infectious agent detection by nucleic acid (DNA or RNA); Herpes virus-6, direct probe technique
87532	Infectious agent detection by nucleic acid (DNA or RNA); Herpes virus-6, amplified probe technique
87533	Infectious agent detection by nucleic acid (DNA or RNA); Herpes virus-6, quantification
87540	Infectious agent detection by nucleic acid (DNA or RNA); Legionella pneumophila, direct probe technique
87541	Infectious agent detection by nucleic acid (DNA or RNA); Legionella pneumophila, amplified probe technique
87542	Infectious agent detection by nucleic acid (DNA or RNA); Legionella pneumophila, quantification
87550	Infectious agent detection by nucleic acid (DNA or RNA); Mycobacteria species, direct probe technique
87551	Infectious agent detection by nucleic acid (DNA or RNA); Mycobacteria species, amplified probe technique
87552	Infectious agent detection by nucleic acid (DNA or RNA); Mycobacteria species, quantification
87555	Infectious agent detection by nucleic acid (DNA or RNA); Mycobacteria tuberculosis, direct probe technique
87556	Infectious agent detection by nucleic acid (DNA or RNA); Mycobacteria tuberculosis, amplified probe technique
87557	Infectious agent detection by nucleic acid (DNA or RNA); Mycobacteria tuberculosis, quantification
87560	Infectious agent detection by nucleic acid (DNA or RNA); Mycobacteria avium-intracellulare, direct probe technique
87561	Infectious agent detection by nucleic acid (DNA or RNA); Mycobacteria avium-intracellulare, amplified probe technique
87562	Infectious agent detection by nucleic acid (DNA or RNA); Mycobacteria avium-intracellulare, quantification
87563	Infectious agent detection by nucleic acid (DNA or RNA); Mycoplasma genitalium, amplified probe technique
87580	Infectious agent detection by nucleic acid (DNA or RNA); Mycoplasma pneumoniae, direct probe technique
87581	Infectious agent detection by nucleic acid (DNA or RNA); Mycoplasma pneumoniae, amplified probe technique
87582	Infectious agent detection by nucleic acid (DNA or RNA); Mycoplasma pneumoniae, quantification

CPT®* Codes	Description
87593	Infectious agent detection by nucleic acid (DNA or RNA); orthopoxvirus (eg, monkeypox virus, cowpox virus, vaccinia virus), amplified probe technique, each
87634	Infectious agent detection by nucleic acid (DNA or RNA); respiratory syncytial virus, amplified probe technique
87640	Infectious agent detection by nucleic acid (DNA or RNA); Staphylococcus aureus, amplified probe technique
87641	Infectious agent detection by nucleic acid (DNA or RNA); Staphylococcus aureus, methicillin resistant, amplified probe technique
87650	Infectious agent detection by nucleic acid (DNA or RNA); Streptococcus, group A, direct probe technique
87651	Infectious agent detection by nucleic acid (DNA or RNA); Streptococcus, group A, amplified probe technique
87652	Infectious agent detection by nucleic acid (DNA or RNA); Streptococcus, group A, quantification
87653	Infectious agent detection by nucleic acid (DNA or RNA); Streptococcus, group B, amplified probe technique
87662	Infectious agent detection by nucleic acid (DNA or RNA); Zika virus, amplified probe technique
87802	Infectious agent antigen detection by immunoassay with direct optical (ie, visual) observation; Streptococcus, group B
87803	Infectious agent antigen detection by immunoassay with direct optical (ie, visual) observation; Clostridium difficile toxin A
87804	Infectious agent antigen detection by immunoassay with direct optical (ie, visual) observation; Influenza
87807	Infectious agent antigen detection by immunoassay with direct optical (ie, visual) observation; respiratory syncytial virus
87808	Infectious agent antigen detection by immunoassay with direct optical (ie, visual) observation; Trichomonas vaginalis
87809	Infectious agent antigen detection by immunoassay with direct optical (ie, visual) observation; adenovirus
87880	Infectious agent antigen detection by immunoassay with direct optical (ie, visual) observation; Streptococcus, group A
87899	Infectious agent antigen detection by immunoassay with direct optical (ie, visual) observation; not otherwise specified
87900	Infectious agent drug susceptibility phenotype prediction using regularly updated genotypic bioinformatics
87901	Infectious agent genotype analysis by nucleic acid (DNA or RNA); HIV-1, reverse transcriptase and protease regions
87902	Infectious agent genotype analysis by nucleic acid (DNA or RNA); Hepatitis C virus
87903	Infectious agent phenotype analysis by nucleic acid (DNA or RNA) with drug resistance tissue culture analysis, HIV 1; first through 10 drugs tested
87904	Infectious agent phenotype analysis by nucleic acid (DNA or RNA) with drug resistance tissue culture analysis, HIV 1; each additional drug tested (List separately in addition to code for primary procedure)
87905	Infectious agent enzymatic activity other than virus (eg, sialidase activity in vaginal fluid)
87906	Infectious agent genotype analysis by nucleic acid (DNA or RNA); HIV-1, other region (eg, integrase, fusion)

CPT®* Codes	Description
87910	Infectious agent genotype analysis by nucleic acid (DNA or RNA); cytomegalovirus
87912	Infectious agent genotype analysis by nucleic acid (DNA or RNA); Hepatitis B virus
87999	Unlisted microbiology procedure
88000	Necropsy (autopsy), gross examination only; without CNS
88005	Necropsy (autopsy), gross examination only; with brain
88007	Necropsy (autopsy), gross examination only; with brain and spinal cord
88012	Necropsy (autopsy), gross examination only; infant with brain
88014	Necropsy (autopsy), gross examination only; stillborn or newborn with brain
88016	Necropsy (autopsy), gross examination only; macerated stillborn
88020	Necropsy (autopsy), gross and microscopic; without CNS
88025	Necropsy (autopsy), gross and microscopic; with brain
88027	Necropsy (autopsy), gross and microscopic; with brain and spinal cord
88028	Necropsy (autopsy), gross and microscopic; infant with brain
88029	Necropsy (autopsy), gross and microscopic; stillborn or newborn with brain
88036	Necropsy (autopsy), limited, gross and/or microscopic; regional
88037	Necropsy (autopsy), limited, gross and/or microscopic; single organ
88040	Necropsy (autopsy); forensic examination
88045	Necropsy (autopsy); coroner's call
88099	Unlisted necropsy (autopsy) procedure
88106	Cytopathology, fluids, washings or brushings, except cervical or vaginal; simple filter method with interpretation
88108	Cytopathology, concentration technique, smears and interpretation (eg, Saccomanno technique)
88112	Cytopathology, selective cellular enhancement technique with interpretation (eg, liquid based slide preparation method), except cervical or vaginal
88120	Cytopathology, in situ hybridization (eg, FISH), urinary tract specimen with morphometric analysis, 3-5 molecular probes, each specimen; manual
88121	Cytopathology, in situ hybridization (eg, FISH), urinary tract specimen with morphometric analysis, 3-5 molecular probes, each specimen; using computer-assisted technology
88125	Cytopathology, forensic (eg, sperm)
88130	Sex chromatin identification; Barr bodies
88140	Sex chromatin identification; peripheral blood smear, polymorphonuclear drumsticks
88155	Cytopathology, slides, cervical or vaginal, definitive hormonal evaluation (eg, maturation index, karyopyknotic index, estrogenic index) (List separately in addition to code[s] for other technical and interpretation services)
88160	Cytopathology, smears, any other source; screening and interpretation
88161	Cytopathology, smears, any other source; preparation, screening and interpretation
88162	Cytopathology, smears, any other source; extended study involving over 5 slides and/or multiple stains
88172	Cytopathology, evaluation of fine needle aspirate; immediate cytohistologic study to determine adequacy for diagnosis, first evaluation episode, each site
88173	Cytopathology, evaluation of fine needle aspirate; interpretation and report
88177	Cytopathology, evaluation of fine needle aspirate; immediate cytohistologic study to determine adequacy for diagnosis, each separate additional evaluation episode, same site (List separately in addition to code for primary procedure)

CPT®* Codes	Description
88199	Unlisted cytopathology procedure
88230	Tissue culture for non-neoplastic disorders; lymphocyte
88233	Tissue culture for non-neoplastic disorders; skin or other solid tissue biopsy
88235	Tissue culture for non-neoplastic disorders; amniotic fluid or chorionic villus cells
88237	Tissue culture for neoplastic disorders; bone marrow, blood cells
88239	Tissue culture for neoplastic disorders; solid tumor
88240	Cryopreservation, freezing and storage of cells, each cell line
88241	Thawing and expansion of frozen cells, each aliquot
88245	Chromosome analysis for breakage syndromes; baseline Sister Chromatid Exchange (SCE), 20-25 cells
88248	Chromosome analysis for breakage syndromes; baseline breakage, score 50-100 cells, count 20 cells, 2 karyotypes (eg, for ataxia telangiectasia, Fanconi anemia, fragile X)
88249	Chromosome analysis for breakage syndromes; score 100 cells, clastogen stress (eg, diepoxybutane, mitomycin C, ionizing radiation, UV radiation)
88261	Chromosome analysis; count 5 cells, 1 karyotype, with banding
88262	Chromosome analysis; count 15-20 cells, 2 karyotypes, with banding
88263	Chromosome analysis; count 45 cells for mosaicism, 2 karyotypes, with banding
88264	Chromosome analysis; analyze 20-25 cells
88267	Chromosome analysis, amniotic fluid or chorionic villus, count 15 cells, 1 karyotype, with banding
88269	Chromosome analysis, in situ for amniotic fluid cells, count cells from 6-12 colonies, 1 karyotype, with banding
88271	Molecular cytogenetics; DNA probe, each (eg, FISH)
88272	Molecular cytogenetics; chromosomal in situ hybridization, analyze 3-5 cells (eg, for derivatives and markers)
88273	Molecular cytogenetics; chromosomal in situ hybridization, analyze 10-30 cells (eg, for microdeletions)
88274	Molecular cytogenetics; interphase in situ hybridization, analyze 25-99 cells
88275	Molecular cytogenetics; interphase in situ hybridization, analyze 100-300 cells
88283	Chromosome analysis; additional specialized banding technique (eg, NOR, C-banding)
88285	Chromosome analysis; additional cells counted, each study
88289	Chromosome analysis; additional high resolution study
88291	Cytogenetics and molecular cytogenetics, interpretation and report
88299	Unlisted cytogenetic study
88300	Level I - Surgical pathology, gross examination only
88304	Level III - Surgical pathology, gross and microscopic examination Abortion, induced Abscess Aneurysm - arterial/ventricular Anus, tag Appendix, other than incidental Artery, atheromatous plaque Bartholin's gland cyst Bone fragment(s), other than pathologic fracture Bursa/synovial cyst Carpal tunnel tissue Cartilage, shavings Cholesteatoma Colon, colostomy stoma Conjunctiva - biopsy/pterygium Cornea Diverticulum - esophagus/small intestine Dupuytren's contracture tissue Femoral head, other than fracture Fissure/fistula Foreskin, other than newborn Gallbladder Ganglion cyst Hematoma Hemorrhoids Hydatid of Morgagni Intervertebral disc Joint, loose body Meniscus Mucocele, salivary Neuroma - Morton's/traumatic Pilonidal cyst/sinus Polyps, inflammatory - nasal/sinusoidal Skin - cyst/tag/debridement Soft tissue, debridement Soft tissue, lipoma Spermatocele Tendon/tendon sheath Testicular appendage

CPT®* Codes	Description
	Thrombus or embolus Tonsil and/or adenoids Varicocele Vas deferens, other than sterilization Ve
88307	Level V - Surgical pathology, gross and microscopic examination Adrenal, resection Bone - biopsy/curettings Bone fragment(s), pathologic fracture Brain, biopsy Brain/meninges, tumor resection Breast, excision of lesion, requiring microscopic evaluation of surgical margins Breast, mastectomy - partial/simple Cervix, conization Colon, segmental resection, other than for tumor Extremity, amputation, non-traumatic Eye, enucleation Kidney, partial/total nephrectomy Larynx, partial/total resection Liver, biopsy - needle/wedge Liver, partial resection Lung, wedge biopsy Lymph nodes, regional resection Mediastinum, mass Myocardium, biopsy Odontogenic tumor Ovary with or without tube, neoplastic Pancreas, biopsy Placenta, third trimester Prostate, except radical resection Salivary gland Sentinel lymph node Small intestine, resection, other than for tumor Soft tissue mass (except lipoma) - biopsy/simple excision Stomach - subtotal/total resection, other than for tumor Testis, biopsy Thymus, tum
88309	Level VI - Surgical pathology, gross and microscopic examination Bone resection Breast, mastectomy - with regional lymph nodes Colon, segmental resection for tumor Colon, total resection Esophagus, partial/total resection Extremity, disarticulation Fetus, with dissection Larynx, partial/total resection - with regional lymph nodes Lung - total/lobe/segment resection Pancreas, total/subtotal resection Prostate, radical resection Small intestine, resection for tumor Soft tissue tumor, extensive resection Stomach - subtotal/total resection for tumor Testis, tumor Tongue/tonsil -resection for tumor Urinary bladder, partial/total resection Uterus, with or without tubes and ovaries, neoplastic Vulva, total/subtotal resection
88311	Decalcification procedure (List separately in addition to code for surgical pathology examination)
88313	Special stain including interpretation and report; Group II, all other (eg, iron, trichrome), except stain for microorganisms, stains for enzyme constituents, or immunocytochemistry and immunohistochemistry
88314	Special stain including interpretation and report; histochemical stain on frozen tissue block (List separately in addition to code for primary procedure)
88319	Special stain including interpretation and report; Group III, for enzyme constituents
88321	Consultation and report on referred slides prepared elsewhere
88323	Consultation and report on referred material requiring preparation of slides
88325	Consultation, comprehensive, with review of records and specimens, with report on referred material
88329	Pathology consultation during surgery;
88331	Pathology consultation during surgery; first tissue block, with frozen section(s), single specimen
88332	Pathology consultation during surgery; each additional tissue block with frozen section(s) (List separately in addition to code for primary procedure)
88333	Pathology consultation during surgery; cytologic examination (eg, touch prep, squash prep), initial site
88334	Pathology consultation during surgery; cytologic examination (eg, touch prep, squash prep), each additional site (List separately in addition to code for primary procedure)

CPT®* Codes	Description
88341	Immunohistochemistry or immunocytochemistry, per specimen; each additional single antibody stain procedure (List separately in addition to code for primary procedure)
88342	Immunohistochemistry or immunocytochemistry, per specimen; initial single antibody stain procedure
88344	Immunohistochemistry or immunocytochemistry, per specimen; each multiplex antibody stain procedure
88346	Immunofluorescence, per specimen; initial single antibody stain procedure
88348	Electron microscopy, diagnostic
88350	Immunofluorescence, per specimen; each additional single antibody stain procedure (List separately in addition to code for primary procedure)
88355	Morphometric analysis; skeletal muscle
88356	Morphometric analysis; nerve
88362	Nerve teasing preparations
88363	Examination and selection of retrieved archival (ie, previously diagnosed) tissue(s) for molecular analysis (eg, KRAS mutational analysis)
88364	In situ hybridization (eg, FISH), per specimen; each additional single probe stain procedure (List separately in addition to code for primary procedure)
88365	In situ hybridization (eg, FISH), per specimen; initial single probe stain procedure
88366	In situ hybridization (eg, FISH), per specimen; each multiplex probe stain procedure
88367	Morphometric analysis, in situ hybridization (quantitative or semi-quantitative), using computer-assisted technology, per specimen; initial single probe stain procedure
88368	Morphometric analysis, in situ hybridization (quantitative or semi-quantitative), manual, per specimen; initial single probe stain procedure
88369	Morphometric analysis, in situ hybridization (quantitative or semi-quantitative), manual, per specimen; each additional single probe stain procedure (List separately in addition to code for primary procedure)
88371	Protein analysis of tissue by Western Blot, with interpretation and report;
88372	Protein analysis of tissue by Western Blot, with interpretation and report; immunological probe for band identification, each
88373	Morphometric analysis, in situ hybridization (quantitative or semi-quantitative), using computer-assisted technology, per specimen; each additional single probe stain procedure (List separately in addition to code for primary procedure)
88374	Morphometric analysis, in situ hybridization (quantitative or semi-quantitative), using computer-assisted technology, per specimen; each multiplex probe stain procedure
88375	Optical endomicroscopic image(s), interpretation and report, real-time or referred, each endoscopic session
88377	Morphometric analysis, in situ hybridization (quantitative or semi-quantitative), manual, per specimen; each multiplex probe stain procedure
88380	Microdissection (ie, sample preparation of microscopically identified target); laser capture
88381	Microdissection (ie, sample preparation of microscopically identified target); manual
88387	Macroscopic examination, dissection, and preparation of tissue for non-microscopic analytical studies (eg, nucleic acid-based molecular studies); each tissue preparation (eg, a single lymph node)

CPT®* Codes	Description
88399	Unlisted surgical pathology procedure
88738	Hemoglobin (Hgb), quantitative, transcutaneous
88740	Hemoglobin, quantitative, transcutaneous, per day; carboxyhemoglobin
88741	Hemoglobin, quantitative, transcutaneous, per day; methemoglobin
88749	Unlisted in vivo (eg, transcutaneous) laboratory service
89049	Caffeine halothane contracture test (CHCT) for malignant hyperthermia susceptibility, including interpretation and report
89050	Cell count, miscellaneous body fluids (eg, cerebrospinal fluid, joint fluid), except blood;
89051	Cell count, miscellaneous body fluids (eg, cerebrospinal fluid, joint fluid), except blood; with differential count
89055	Leukocyte assessment, fecal, qualitative or semiquantitative
89060	Crystal identification by light microscopy with or without polarizing lens analysis, tissue or any body fluid (except urine)
89125	Fat stain, feces, urine, or respiratory secretions
89160	Meat fibers, feces
89190	Nasal smear for eosinophils
89220	Sputum, obtaining specimen, aerosol induced technique (separate procedure)
89230	Sweat collection by iontophoresis
89240	Unlisted miscellaneous pathology test

HCPCS Codes	Description
G0327	Colorectal cancer screening; blood-based biomarker
S3630	Eosinophil count, blood, direct
S3650	Saliva test, hormone level; during menopause
S3652	Saliva test, hormone level; to assess preterm labor risk
S3708	Gastrointestinal fat absorption study
S3722	Dose optimization by area under the curve (auc) analysis, for infusional 5-fluorouracil

Considered Experimental/Investigational/Unproven:

CPT®* Codes	Description
0247U	Obstetrics (preterm birth), insulin-like growth factor–binding protein 4 (IBP4), sex hormone– binding globulin (SHBG), quantitative measurement by LC-MS/MS, utilizing maternal serum, combined with clinical data, reported as predictive-risk stratification for spontaneous preterm birth
0261U	Oncology (colorectal cancer), image analysis with artificial intelligence assessment of 4 histologic and immunohistochemical features (CD3 and CD8 within tumor-stroma border and tumor core), tissue, reported as immune response and recurrence-risk score
0384U	Nephrology (chronic kidney disease), carboxymethyllysine, methylglyoxal hydroimidazolone, and carboxyethyl lysine by liquid chromatography with tandem mass spectrometry (LC-MS/MS) and HbA1c and estimated glomerular filtration rate (GFR), with risk score reported for predictive progression to high-stage kidney disease
0385U	Nephrology (chronic kidney disease), apolipoprotein A4 (ApoA4), CD5 antigen-like (CD5L), and insulin-like growth factor binding protein 3 (IGFBP3) by enzyme-linked immunoassay (ELISA), plasma, algorithm combining results with

CPT®* Codes	Description
	HDL, estimated glomerular filtration rate (GFR) and clinical data reported as a risk score for developing diabetic kidney disease
0458U	Oncology (breast cancer), S100A8 and S100A9, by enzyme-linked immunosorbent assay (ELISA), tear fluid with age, algorithm reported as a risk score
0558U	Oncology (colorectal), quantitative enzyme-linked immunosorbent assay (ELISA) for secreted colorectal cancer protein marker (BF7 antigen), using serum, result reported as indicative of response/no response to therapy or disease progression/regression
0559U	Oncology (breast), quantitative enzyme-linked immunosorbent assay (ELISA) for secreted breast cancer protein marker (BF9 antigen), serum, result reported as indicative of response/no response to therapy or disease progression/regression
0574U	Mycobacterium tuberculosis, culture filtrate protein-10-kDa (CFP-10), serum or plasma, liquid chromatography mass spectrometry (LC-MS)

ICD-10-CM Diagnosis Codes	Description
	All Codes

Not Covered or Reimbursable:

CPT®* Codes	Description
0616U	Neurology (dementia), DNA methylation analysis of more than 30,000 sites, whole blood, algorithm reported as positive or negative risk
0617U	Cardiovascular (atherosclerotic cardiovascular disease [ASCVD]), DNA methylation analysis of more than 20,000 sites, whole blood, algorithm reported as positive or negative risk
0618U	Psychiatry (bipolar disorder), DNA methylation analysis of more than 10,000 sites, whole blood, algorithm reported as positive or negative risk
0619U	Pulmonary (chronic obstructive pulmonary disease [COPD]), DNA methylation analysis of more than 18,000 sites, whole blood, algorithm reported as positive or negative risk
0620U	Oncology (hepatocellular carcinoma), DNA methylation analysis of more than 5,000 sites, whole blood, algorithm reported as positive or negative risk
0621U	Infectious disease (Lyme borreliosis), DNA methylation analysis of more than 10,000 sites, whole blood, algorithm reported as positive or negative risk
0622U	Psychiatry (major depressive disorder), DNA methylation analysis of more than 20,000 sites, whole blood, algorithm reported as positive or negative risk
0623U	Autoimmune (multiple sclerosis), DNA methylation analysis of more than 5,000 sites, whole blood, algorithm reported as positive or negative risk
0624U	Hepatology (nonalcoholic steatohepatitis [NASH]), DNA methylation analysis of 5,000 sites, whole blood, algorithm reported as positive or negative risk
0625U	Endocrinology (osteoporosis), DNA methylation analysis of more than 5,000 sites, whole blood, algorithm reported as positive or negative risk
0626U	Neurology (Parkinson disease), DNA methylation analysis of more than 20,000 sites, whole blood, algorithm reported as positive or negative risk
0627U	Psychiatry (schizophrenia), DNA methylation analysis of more than 15,000 sites, whole blood, algorithm reported as positive or negative risk

0628U	Nephrology (kidney disease-related genetic conditions), genomic analysis, renal disease panel, saliva, DNA, next-generation sequencing of 449 genes, reported as pathogenic or likely pathogenic variants of uncertain significance or risk alleles

ICD-10-CM Diagnosis Codes	Description
	All Codes

General Background

General Criteria for Laboratory Testing
Among the variables that influence medical decisions, laboratory tests are considered to be among the most important and frequently used. In around 40% of primary care consultations, a diagnosis cannot be established from the history and physical examination alone, and tests are therefore often needed (O'Sullivan, et al., 2018). Nearly one-third of individuals tested in an outpatient setting have laboratory tests during their healthcare visit; overall 35% of health care encounters have one or more laboratory tests ordered (Ngo, et al., 2017).

The use of a laboratory test is not always appropriate, as it may generate false positives, produce downstream cascades of more testing, expose patients to radiation or other harms, and create unnecessary patient anxiety, and could therefore be considered of low value. Recent studies show that low-value diagnostic tests are still widely used and account for a substantial portion of the total amount of low-value healthcare expenses (Müskens, et al., 2021).

Overuse of tests, the delivery of tests with no clear benefit or when potential harms outweigh potential benefits, subjects patients to direct harms, potential adverse outcomes, findings and overdiagnosis. Overuse is also a waste of finite healthcare expenditure, diverting resources from beneficial tests and treatments (O'Sullivan, et al., 2018). Lab test overuse can contribute to further unnecessary follow-up and testing, negative patient experiences, potentially inappropriate treatments, and the inefficient use of health care resources (CADTH, 2024). While there is no universal standard that informs the essential number and frequency of every laboratory test that may be performed during a health care visit, some general principles apply to the clinical usefulness and medical necessity of laboratory testing.

To have clinical utility a single laboratory test or panel of tests should be demonstrated in the published, peer-reviewed scientific literature in the form of prospective clinical trial data to have analytical and clinical validity, used to prevent illness or assist in the evaluation, diagnosis or management of an existing illness, injury or disease, or its symptoms. Results of the testing should directly impact the clinical management of the individual for whom the testing is being requested.

Testing panels may be clinically useful when sequential testing of single tests is not feasible because of limited availability of the specimen source (e.g., blood, saliva, tissue) or when urgent treatment decisions are pending and sequential testing would result in a prolonged testing schedule which would delay the diagnosis or management of the individual for whom testing is proposed. The use of panel testing may preclude the need for multiple and/or invasive procedures or tests, follow up, or screening that would be recommended in the absence of panel testing.

There is insufficient evidence in the published, peer-reviewed scientific literature to support the use of laboratory testing for screening in the general population other than that screening recommended by the United States Preventive Services Task Force (USPSTF) (i.e., A & B recommendations) and other published Professional Society/Organization guidelines.

USPSTF Grade A&B recommendations are described by the Task Force as follows (USPSTF, 2012):

Grade	Definition
A	The USPSTF recommends the service. There is high certainty that the net benefit is substantial. Offer or provide this service.
B	The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.

Due to the complexity of laboratory testing, tests should be US Food and Drug Administration (FDA) approved or cleared and/or be performed in a Clinical Laboratory Improvement Amendments (CLIA) appropriately credentialed and certified laboratory.

Neither a single laboratory test nor panel testing is clinically useful if testing for the same substance or analyte in question has been previously performed, in the absence of documented changes in the condition of the individual, requiring further evaluation.

Minimum retesting intervals suggest the minimum time before a test should be repeated based on the biochemical properties of the test and the clinical situation in which it is used. They are intended to inform clinical decisions about repeat testing (CADTH, 2024).

Literature Review
Results of a systematic review were reported by Müskens, et al. (2021). The primary outcome of this study was the prevalence of overuse of diagnostic tests across all healthcare settings. Descriptive statistics and median prevalences were calculated across all assessments for diagnostic imaging, laboratory testing and electroencephalogram categories. The majority of included assessments of low-value diagnostic testing (n=85) report overuse to be below 25%. The authors noted that preoperative testing and imaging for non-specific low back pain are the most frequently assessed and overused low-value diagnostic tests.

Zhi, et al. (2013) described a multi-database systematic review of studies published from 1997-2012. The review examined patterns of over- versus underutilization, initial versus repeat testing, and low- versus high-volume testing. A review of over- and underutilization related to subjective versus objective appropriateness criteria and restrictive versus permissive appropriateness criteria was included in the study.

Overall, mean rates of over- and underutilization were 20.6% and 44.8%. Overutilization during initial testing (43.9%) was six times higher than during repeat testing (7.4%); ($P<0.001$). Overutilization of low-volume tests (32.2%) was three times that of high-volume tests (10.2%); ($P<0.001$). Overutilization was also measured using subjective criteria (29.0%) compared to objective criteria (16.1%); ($P = 0.004$). Considered together, these factors explained 54% of the overall variability in overutilization. There were no statistically significant differences between studies from the United States and those conducted elsewhere ($P = 0.38$) or among chemistry, hematology, microbiology, and molecular tests ($P = 0.05–0.65$) and no robust statistically significant trends over time.

The authors noted that overutilization varies systematically by clinical setting (i.e., initial vs. repeat), test volume, and measurement criteria. They suggested that efforts to reduce unnecessary testing should expand beyond repeat testing to include ensuring appropriate test selection during the initial evaluation, which may help reduce errors and improve patient care.

Professional Societies/Organizations
Canadian Agency for Drugs and Technologies in Health (CADTH, 2024):
CADTH notes lab test overuse can contribute to further unnecessary follow-up and testing, negative patient experiences, potentially inappropriate treatments, and the inefficient use of health care resources. Minimum retesting intervals suggest the minimum time before a test should be repeated based on the biochemical properties of the test and the clinical situation in which it is used. They are intended to inform clinical decisions about repeat testing.

Experimental, Investigational, or Unproven Laboratory Testing
Laboratory tests are classified experimental, investigational and unproven when they lack sufficient evidence from existing peer-reviewed, evidence-based, scientific literature to demonstrate their safety and effectiveness in treating or diagnosing any condition or illness.

Laboratory tests are also considered experimental, investigational and unproven if there is insufficient evidence in the existing peer-reviewed, evidence-based, scientific literature to demonstrate that the test results will improve health outcomes.

The Clinical Laboratory Improvement Amendments (CLIA) are a set of U.S. federal regulations established to ensure the quality and reliability of laboratory testing. Under CLIA, a Laboratory Developed Test (LDT) is an in vitro diagnostic test designed, manufactured, and used within a single laboratory that holds a CLIA certificate for high-complexity testing. LDT's are subject to specific requirements to ensure the analytic validity of the tests within the lab's own environment but are not regulated by the FDA and do not require FDA clearance or approval before use.

Serum-Based Proteomic Testing - PreTRM®
Using proteomic technology, Sera Prognostics developed a biomarker signature for predicting spontaneous preterm birth (sPTB). The PreTRM test measures maternal serum for insulin-like growth factor-binding protein 4 (IBP4) and sex hormone-binding globulin (SHBG) and is proposed to predict an individual's risk of sPTB. The serum blood test is indicated for asymptomatic patients, before symptoms of preterm labor.

Immunoscore
Immunoscore (HalioDx) assesses immune response within colorectal tumors. This test uses a scoring system to predict the likelihood of cancer recurrence. A high Immunoscore indicates a strong immune response and lower risk of recurrence, while a low Immunoscore suggests a weak immune response and a higher risk of recurrence. Immunoscore is used to guide decisions regarding adjuvant chemotherapy in early-stage colorectal cancer.

NaviDKD™ Predictive Diagnostic Screening for Kidney Health
NaviDKD Predictive Diagnostic Screening for Kidney Health (Journey Biosciences, Inc.) measures 3 advanced glycation end products (AGEs) in the blood. Those results and other data (diabetes type, age, gender, duration of diabetes, A1c levels, and eGFR) are combined to create a risk score. The risk score indicates the likelihood of developing kidney disease in the future.

IGoCheck™
IGoCheck (Milagen, Inc.) is a blood-based screening test for colorectal cancer designed to assess the risk of early-stage colorectal cancer and advanced adenomas. IGoCheck measures specific

circulating biomarkers and applies an algorithm to generate a quantitative risk score. A high risk suggests a greater likelihood of the presence of early-stage colorectal cancer or advanced adenoma. A low-risk score indicates that colorectal cancer is unlikely at the time of testing.

MammoCheck™
MammoCheck (Milagen, Inc.) is a blood-based screening test for breast cancer designed to assess the risk of early-stage breast cancer. MammoCheck measures specific circulating biomarkers and applies an algorithm to generate a quantitative risk score. A high risk suggests a greater likelihood of the presence of breast cancer or precancerous activity. A low-risk score indicates that current breast cancer is unlikely at the time of testing.

Auria© Home Breast Health Assessment
The Auria© Home Breast Health Assessment (Namida Lab, Inc.) combines analysis of two proteins (S100A8 and S100A9) in a tear sample with an age algorithm to generate a risk score for breast cancer. The proteins are involved in early inflammatory processes and may be elevated due to any breast tissue abnormalities associated with breast cancer.

Promarker®D
PromarkerD (Proteomics International) is a blood-based diagnostic tool developed to predict diabetic kidney disease (DKD) in individuals with diabetes prior to the appearance of clinical symptoms. The test uses a combination of three plasma protein biomarkers, clinical data and a proprietary algorithm to generate a risk score for DKD. Patients are classified as low, moderate or high risk, with the intent of enabling intervention strategies to prevent or slow kidney damage.

NanoDetect-TB
NanoDetect-TB (NanoPin Technologies) was developed to detect a virulence factor secreted by mycobacterium tuberculosis in small-volume serum or plasma samples. This virulence factor is required for TB development and progression. It is intended to detect both pulmonary and extrapulmonary TB in adults and in populations that are more difficult to detect, including children, infants, and those co-infected with HIV.

Epigenetic (DNA methylation) Risk Prediction Testing
Epigenetic testing evaluates chemical modifications to DNA, such as methylation, that may be associated with gene expression changes. Examples include epigenetic risk-prediction testing for neurological, psychiatric, cardiovascular, oncologic, pulmonary, autoimmune, metabolic, infectious, or endocrine conditions. While epigenetic patterns may correlate with disease states, the clinical significance of these associations remains uncertain. Evidence is insufficient to demonstrate that testing improves health outcomes.

RenaDx™
RenaDx™ (Personalized Medicine Care Diagnostics) uses saliva to evaluate up to 449 genes by next generation sequencing. The result reports the presence of pathogenic variants, likely pathogenic variants, variants of uncertain significance, or risk alleles as related to kidney disease. Evidence is insufficient to demonstrate that testing improves health outcomes.

Health Equity Considerations

Health equity is the highest level of health for all people; health inequity is the avoidable difference in health status or distribution of health resources due to the social conditions in which people are born, grow, live, work, and age.

Social determinants of health are the conditions in the environment that affect a wide range of health, functioning, and quality of life outcomes and risks. Examples include safe housing, transportation, and neighborhoods; racism, discrimination and violence; education, job opportunities and income; access to nutritious foods and physical activity opportunities; access to clean air and water; and language and literacy skills.

From an equity perspective, unnecessary repeat laboratory testing takes time and resources away from other valuable treatments or patients (Canadian Agency for Drugs and Technologies in Health [CADTH], 2024).

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Revision Details

Type of Revision	Summary of Changes	Date
Focused Review	Added policy statement for not covered or reimbursable tests. Codes added.	5/15/2026
Annual Review	No clinical policy statement changes.	3/15/2026
Focused Review	Policy updated and codes added.	2/15/2026
Focused Review	Policy updated and codes added.	11/15/2025
Initial	New coverage policy.	3/15/2025