Priority Health

MEDICAL POLICY
No. 91540-R21

GENETICS: COUNSELING, TESTING, SCREENING

Effective Date: March 1, 2025

Review Dates: 8/07, 10/07, 8/08, 8/09, 10/09, 2/10, 8/10, 8/11, 10/11, 10/12, 10/13, 11/14, 11/15, 11/16, 11/17, 5/18, 11/18, 11/19, 11/20, 11/21, 11/22, 8/23, 8/24, 2/25

Date Of Origin: August 8, 2007

Status: Current

Summary of Changes

- Addition:
  - I.A.3.a: Directions on how to access third party delegated clinical guidelines
  - I.K.2: Criteria on multi-marker tumors panel from retired Multi-Marker Tumor Panels policy # 91609
- Clarification:
  - Formatting changes
  - Updated references

I. POLICY/CRITERIA

A. Genetic counseling, testing and/or screening is medically necessary when all of the following apply:

1. Appropriate genetic counseling occurs before and after testing.
   a. Members must have genetic counseling by a genetic counselor before testing can occur for certain conditions (see Appendix A below). Counseling can occur at the same visit as the sample(s) for testing are collected with appropriate documentation as defined above.
   b. Genetic Counseling must be performed by a board-certified genetic counselor that is independent of the laboratory performing the requested testing. See Appendix A below for a list of specific conditions for which genetic counseling is required and/or recommended.
2. Documented informed consent occurs before testing.
   a. Health care practitioners in the State of Michigan must follow state law regarding informed consent for predictive genetic testing. (Michigan State Law. 333.17020 Genetic test; informed consent
3. Prior authorization is obtained.
   a. Selected tests require prior authorization administered through Evicore. To access Evicore guidelines: Log into Priority Health Prism → Authorizations → Authorization Criteria Lookup.
   b. Refer to Section V, Coding Information, for specific prior authorization requirements by CPT code.

B. Chemosensitivity Assays are considered experimental and investigational and not medically necessary.

C. Genetic Carrier Screening may be medically necessary according to Evicore guidelines**.**

D. Gene Expression Analysis may be medically necessary according to Evicore guidelines.

E. Prenatal Testing

1. Non-invasive prenatal testing (NIPT) for fetal aneuploidies trisomy 21, 13, and 18 using tests that analyze circulating cell-free DNA extracted from a maternal blood sample is medically necessary when the following criteria are met:
    a. Appropriate education & counseling occurs prior to testing.
    b. Singleton or twin pregnancy, and
    c. Gestational age within the window validated by the selected testing laboratory.
2. Cell-free DNA screening for aneuploidy of the X and Y chromosomes and/or detection of less common trisomies are not separately payable.
3. Prenatal cell-free DNA screening for chromosome microdeletions is considered investigational and/or experimental.
4. Prenatal cell-free DNA screening for single-gene mutations is considered investigational and/or experimental.
5. Prenatal diagnostic chromosomal or cytogenetic testing (via amniocentesis or chorionic villus sampling) is medically necessary for pregnant women when the member has received genetic counseling by a genetic counselor, the reason for testing is documented. Common indications for prenatal diagnosis include but are not limited to:
    a. Abnormal fetal ultrasound findings.
    b. Abnormal maternal serum first trimester screening, second trimester triple or quad screen, integrated* or alpha-fetoprotein, elevated maternal serum alpha-fetoprotein (MSAFP).
    c. Increased risk based on documented family history or carrier status.
6. Prenatal diagnostic chromosomal or cytogenetic testing is ***not*** medically necessary for:
    a. Sex determination unless medically indicated.
    b. Prenatal determination of paternity.
    c. Preconceptual testing of sperm, ova, embryos for use in assisted reproduction (e.g. artificial insemination, IVF).

F. Predictive Genetic Testing may be medically necessary according to Evicore guidelines.

G. Preimplantation Genetic Diagnosis (PGD):

1. Services related to assisted reproduction are not a covered benefit unless the group/member has purchased a rider.
2. For members with a rider:
    a. Genetic testing is medically necessary according to Evicore guidelines.
    b. Oocyte polar body or embryo blastomere biopsy is covered if genetic test is medically necessary.

H. Pharmacogenomic Testing may be medically necessary according to Evicore guidelines.

I. Prognostic Testing may be medically necessary according to Evicore guidelines.

J. Suspected Genetic Conditions/ Diagnostic testing may be medically necessary according to Evicore guidelines.

K. Tumor Markers

1. Genetic testing may be medically necessary according to Evicore guidelines.
2. Multi-Marker Tumor Panels:
    a. The diagnosis and treatment of solid tumors and hematological malignancies are medically necessary according to Evicore guidelines.
    b. Coverage for drug therapy is determined by Pharmacy drug coverage policies and requirements.
3. Carcinoembryonic antigen (CEA) is considered medically necessary when used to detect asymptomatic recurrence of colorectal cancer after surgical and/or medical treatment for the diagnosis of colorectal cancer but is not considered medically necessary as a screening test for colorectal cancer
4. Bladder tumor antigen (BTA) Stat test is medically necessary in any of the following conditions:
    a. Follow-up of treatment for bladder cancer; *or*
    b. Monitoring for eradication of bladder cancer; *or*
    c. Recurrences after eradication.
    d. BTA Stat test is considered experimental and investigational for screening of bladder cancer and all other indications.

L. Whole Genome Sequencing (WGS), Exome Sequencing/Whole Exome Sequencing (WES), genome-wide association studies (GWAS), or mitochondrial whole genome analysis (MITO-WGA) conducted in the outpatient setting may be medically necessary according to Evicore guidelines.

M. Rapid Whole Genome Sequencing (rWGS) may be medically necessary if all the following criteria are met:

1. Ordered after determination by a Board-Certified or Board-Eligible Medical Geneticist that testing could be useful in establishing a diagnosis and treatment options; AND
2. Member <18 years of age; AND
3. Acutely ill inpatient member either
    a. Tested within 1 week of admission to a hospital; OR
    b. Tested within 1 week of development of an abnormal response to standard therapy for an underlying condition.

Note: Priority Health requires only notification of intent to perform inpatient rapid WGS Genetics medical policy prior notification form. This submission may occur prior to or in conjunction with testing. The intent is to avoid unnecessary delay to inpatient care.

N. Testing of member and non-member relatives:

1. Genetic testing that does not provide direct medical benefit to the member are not medically necessary unless the test results provide direct medical benefit to

other relatives who are also Priority Health members and this benefit is documented.

2. Genetic testing of a non-member relative of a member ***may*** be medically necessary if ***all*** of the criteria in a through e are met:
   a. The test results are for the direct medical benefit of the member and testing the non-member relative is the most cost-effective method to obtain the medically necessary information for the member.
   b. The non-member relative's insurance company has been billed and payment has been denied.
   c. Coverage is limited to the testing of ***five*** non-member relatives as a lifetime benefit for a member.
   d. Testing of the non-member relative has been recommended by a genetics counselor ***and*** approved by Priority Health.
   e. All genetic testing must be processed through a Priority Health provider phlebotomist and laboratory, unless otherwise specified by the Genetics Counselor.
3. In the absence of specific information regarding advances in the knowledge of mutation characteristics for a particular disorder, the current literature indicates that genetic tests for inherited disease need only be conducted once per lifetime of the member.

O. Exclusions: The following services that are not medically necessary (not an all-inclusive list):

a. Routine, ongoing, or long-term genetic counseling.
b. Genetic testing to determine the paternity of a child.
c. Genetic testing to determine the sex of the child.
d. General population screening for genetic disorders (e.g., cystic fibrosis).
e. rWGS for inpatients members whose clinical course is entirely explained by but not limited to:
   i. Infection or sepsis with normal response to therapy
   ii. Isolated prematurity
   iii. Isolated transient neonatal tachypnea
   iv. Isolated unconjugated hyperbilirubinemia
   v. Hypoxic ischemic encephalopathy with clear precipitating event
   vi. Meconium aspiration
   vii. Previously confirmed genetic diagnosis that explains their clinical condition (i.e., have a positive genetic test)
   viii. Trauma

Special Notes: Informed ***consent*** is ***required*** for all genetic tests in accordance with Michigan law PUBLIC HEALTH CODE (EXCERPT)Act 368 of 1978: 333.17020 Genetic test; informed consent Sec. 17020

II. MEDICAL NECESSITY REVIEW

Prior authorization for certain drug, services, and procedures may or may not be required. In cases where prior authorization is required, providers will submit a request demonstrating that a drug, service, or procedure is medically necessary. For more information, please refer to the Priority Health Provider Manual.

All tests performed at non-participating laboratories will require prior authorization for all products.

To access Evicore guidelines policies: Log into Priority Health Prism → Authorizations → Authorization Criteria Lookup.

III. APPLICATION TO PRODUCTS:

Coverage is subject to member's specific benefits. Group specific policy will supersede this policy when applicable.

- **HMO/EPO:** ***This policy applies to insured HMO/EPO plans.***
- **POS:** ***This policy applies to insured POS plans.***
- **PPO:** ***This policy applies to insured PPO plans. Consult individual plan documents as state mandated benefits may apply. If there is a conflict between this policy and a plan document, the provisions of the plan document will govern.***
- **ASO:** ***For self-funded plans, consult individual plan documents. If there is a conflict between this policy and a self-funded plan document, the provisions of the plan document will govern.***
- **INDIVIDUAL:** ***For individual policies, consult the individual insurance policy. If there is a conflict between this medical policy and the individual insurance policy document, the provisions of the individual insurance policy will govern.***
- **MEDICARE:** ***Coverage is determined by the Centers for Medicare and Medicaid Services (CMS) and/or the Evidence of Coverage (EOC); if a coverage determination has not been adopted by CMS, this policy applies.***
- **MEDICAID/HEALTHY MICHIGAN PLAN:** ***For Medicaid/Healthy Michigan Plan members, this policy will apply. Coverage is based on medical necessity criteria being met and the appropriate code(s) from the coding section of this policy being included on the Michigan Medicaid Fee Schedule located at: http://www.michigan.gov/mdch/0,1607,7-132-2945_42542_42543_42546_42551-159815--,00.html. If there is a discrepancy between this policy and the Michigan Medicaid Provider Manual located at: http://www.michigan.gov/mdch/0,1607,7-132-2945_5100-87572--,00.html, the Michigan Medicaid Provider Manual will govern. For Medical Supplies/DME/Prosthetics and Orthotics, please refer to the Michigan Medicaid Fee Schedule to verify coverage.***

IV. DESCRIPTION

Genetic Counseling. Genetic counseling is the process of helping people understand and adapt to the medical, psychological and familial implications of genetic contributions to disease. This process integrates the following:

1. Interpretation of family and medical histories to assess the chance of disease occurrence or recurrence.
2. Education about inheritance, testing, management, prevention, resources and research.
3. Counseling to promote informed choices and adaptations to the risk or condition.
4. Discussion of the ethical and legal aspects of autonomy, privacy, equity and confidentiality as applied to each individual seeking genetic testing.
5. Psychosocial aspects should be addressed during the pre-test and post-test counseling session surrounding any genetic testing.

Genetic counselors are defined by the plan as American Board of Medical Genetics or American Board of Genetic Counseling certified physicians or masters or doctorate level-trained genetic counseling professionals who have received formal training in genetics and genetic counseling from an accredited institution. It is the genetic counselor's or physician specialist's role to provide information to the individual or family regarding the genetic disorder that will allow them to make an informed decision.

Genetic Testing. A genetic test is the analysis of human DNA, RNA, chromosomes, proteins, or certain metabolites in order to detect alterations related to a heritable or acquired disorder. This can be accomplished by directly examining the DNA or RNA that makes up a gene (direct testing), looking at markers co-inherited with a disease-causing gene (linkage testing), assaying certain metabolites (biochemical testing), or examining the chromosomes (cytogenetic testing). Clinical genetic tests are those in which specimens are examined and results reported to the provider or patient for the purpose of diagnosis, prevention or treatment in the care of individual patients.

Genetic Screening refers to examining the genes and/or gene products of phenotypically normal or otherwise people to see if they are carriers of an abnormal gene. Carriers usually do not themselves have symptoms related to the gene mutation. Carrier testing is offered to individuals who have family members with a genetic condition, family members of an identified carrier, and individuals in ethnic or racial groups known to have a higher carrier rate for a particular condition.

Whole genome sequencing (WGS), also known as full genome sequencing (FGS), complete genome sequencing, or entire genome sequencing is a laboratory procedure which seeks to determine an individual's entire DNA sequence, specifying the order of every base pair within the genome at a single time. Rapid whole genome sequencing (rWGS) is a high speed form of WGS which shortens the time of genome analysis. The relationship between mutations in the genomic material of asymptomatic individuals and the development of specific diseases is still being analyzed and the role of whole-genome sequencing in the clinical setting has yet to be established.

Exome sequencing, also referred to as whole exome sequencing or WES, is an alternative to WGS. It is laboratory process to determine the sequence of the protein coding regions of the genome. The exome is the part of the genome that encodes protein,

where roughly 85 percent of variants are known to contribute to diseases in humans. Exome sequencing has been proposed as a diagnostic method to identify these genetic variants in patients not diagnosed by traditional diagnostic and genetic testing approaches

Genome-wide association studies (GWAS), also referred to as genome-wide analysis, is a method of identifying genes involved in human disease by comparing the genome of individuals with a disease or condition to the genome of individuals without the disease or condition. GWAS are performed using microarrays to search the genome for small variations, called single nucleotide polymorphisms (SNPs, pronounced "snips"), that occur more often in individuals with a specific disorder than in those who do not have a disorder.

Mitochondrial Whole Genome Analysis (MITO-WGA) Mitochondrial disease represents a heterogeneous group of conditions with the same etiology: a mutation which impairs the function of the mitochondrial electron transport chain. Dysfunction of the mitochondria can cause any of a variety of conditions and symptoms: progressive external opthalmoplegia, optic atrophy, retinitis pigmentosa, proximal myopathy, exercise intolerance, sensorineural deafness, encephalopathy, seizures, and ataxia.

V. CODING INFORMATION

Diagnosis Codes that may support medical necessity
Not specified

CPT/HCPCS Codes *that may be covered if criteria met:*
(Coverage information for Medicare subject to change; Consult LCD's, NCD's for current Medicare coverage)

Genetic Counseling

96041	Medical genetics and genetic counseling services, each 30 minutes of total time provided by the genetic counselor on the date of the encounter
S0265	Genetic counseling, under physician supervision, each 15 minutes

KEY

eC PA Prior authorization (PA) through Evicore required (or Priority Health if noted)

Review in Panels: Code is covered without prior authorization required but may be requested for PA if reported with codes that do require PA such as multi-test panels that are not otherwise reported with a single code. (*All procedure codes (81105-81599) included in a multiple procedure code panel are subject to medical necessity review if any code requires prior authorization).* The procedure requiring PA is the code that should initiate access to Evicore via the provider portal.

OOS: Out of Scope for Evicore management. One of the following may apply
OOS - Not Covered: Code is not covered for Priority Health members
OOS - No PA: Code is covered for In Network Providers without PA but is not managed by Evicore. Out of Network providers should submit PA requests to Priority Health via FAX form

Not Covered: Code is not covered for one or more business categories (Commercial, Medicaid, Medicare). Procedures that are not covered do not require PA but voluntary authorization requests may be submitted for a non-coverage determination

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81105	Human Platelet Antigen 1 genotyping (HPA-1), ITGB3 (integrin, beta 3 [platelet glycoprotein IIIa], antigen CD61 [GPIIIa]) (eg, neonatal alloimmune thrombocytopenia [NAIT], post-transfusion purpura), gene analysis, common variant, HPA-1a/b (L33P)		Review in panels	Review in panels	Review in panels
81106	Human Platelet Antigen 2 genotyping (HPA-2), GP1BA (glycoprotein Ib [platelet], alpha polypeptide [GPIba]) (eg, neonatal alloimmune thrombocytopenia [NAIT], post-transfusion purpura), gene analysis, common variant, HPA-2a/b (T145M)		Review in panels	Review in panels	Review in panels
81107	Human Platelet Antigen 3 genotyping (HPA-3), ITGA2B (integrin, alpha 2b [platelet glycoprotein IIb of IIb/IIIa complex], antigen CD41 [GPIIb]) (eg, neonatal alloimmune thrombocytopenia [NAIT], post-transfusion purpura), gene analysis, common variant, HPA-3a/b (I843S)		Review in panels	Review in panels	Review in panels
81108	Human Platelet Antigen 4 genotyping (HPA-4), ITGB3 (integrin, beta 3 [platelet glycoprotein IIIa], antigen CD61 [GPIIIa]) (eg, neonatal alloimmune thrombocytopenia [NAIT], post-transfusion purpura), gene analysis, common variant, HPA-4a/b (R143Q)		Review in panels	Review in panels	Review in panels
81109	Human Platelet Antigen 5 genotyping (HPA-5), ITGA2 (integrin, alpha 2 [CD49B, alpha 2 subunit of VLA-2 receptor] [GPIa]) (eg, neonatal alloimmune thrombocytopenia [NAIT], post-transfusion purpura), gene analysis, common variant (eg, HPA-5a/b (K505E))		Review in panels	Review in panels	Review in panels
81110	Human Platelet Antigen 6 genotyping (HPA-6w), ITGB3 (integrin, beta 3 [platelet glycoprotein IIIa, antigen CD61] [GPIIIa]) (eg, neonatal alloimmune thrombocytopenia [NAIT], post-transfusion purpura), gene analysis, common variant, HPA-6a/b (R489Q)		Review in panels	Review in panels	Review in panels

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81111	Human Platelet Antigen 9 genotyping (HPA-9w), ITGA2B (integrin, alpha 2b [platelet glycoprotein IIb of IIb/IIIa complex, antigen CD41] [GPIIb]) (eg, neonatal alloimmune thrombocytopenia [NAIT], post-transfusion purpura), gene analysis, common variant, HPA-9a/b (V837M)		Review in panels	Review in panels	Review in panels
81112	Human Platelet Antigen 15 genotyping (HPA-15), CD109 (CD109 molecule) (eg, neonatal alloimmune thrombocytopenia [NAIT], post-transfusion purpura), gene analysis, common variant, HPA-15a/b (S682Y)		Review in panels	Review in panels	Review in panels
81120	IDH1 (isocitrate dehydrogenase 1 [NADP+], soluble) (eg, glioma), common variants (eg, R132H, R132C)		Review in panels	Review in panels	Review in panels
81121	IDH2 (isocitrate dehydrogenase 2 [NADP+], mitochondrial) (eg, glioma), common variants (eg, R140W, R172M)		Review in panels	Review in panels	Review in panels
81161	DMD (dystrophin) (eg, Duchenne/Becker muscular dystrophy) deletion analysis, and duplication analysis, if performed		Review in panels	Review in panels	Not Covered
81162	BRCA1, BRCA2 (breast cancer 1 and 2) (eg, hereditary breast and ovarian cancer) gene analysis; full sequence analysis and full duplication/deletion analysis	**BRAC1/2** (Ambry) **BRCAssure** (LabCorp) **BRCAvantage Comprehensive** (Quest) **Integrated BRAC Analysis®** (Myriad)	eC PA	eC PA	eC PA
81163	BRCA1 (BRCA1, DNA repair associated), BRCA2 (BRCA2, DNA repair associated) (eg, hereditary breast and ovarian cancer) gene analysis; full sequence analysis		eC PA	eC PA	eC PA
81164	BRCA1 (BRCA1, DNA repair associated), BRCA2 (BRCA2, DNA repair associated) (eg, hereditary breast and ovarian cancer) gene analysis; full duplication/deletion analysis (ie, detection of large gene rearrangements)		eC PA	eC PA	eC PA
81165	BRCA1 (BRCA1, DNA repair associated) (eg, hereditary breast and ovarian cancer) gene analysis; full sequence analysis		eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81166	BRCA1 (BRCA1, DNA repair associated) (eg, hereditary breast and ovarian cancer) gene analysis; full duplication/deletion analysis (ie, detection of large gene rearrangements)		eC PA	eC PA	eC PA
81167	BRCA2 (BRCA2, DNA repair associated) (eg, hereditary breast and ovarian cancer) gene analysis; full duplication/deletion analysis (ie, detection of large gene rearrangements)		eC PA	eC PA	eC PA
81168	CCND1/IGH (t(11;14)) (eg, mantle cell lymphoma) translocation analysis, major breakpoint, qualitative and quantitative, if performed		Review in panels	Review in panels	Review in panels
81170	ABL1 (ABL proto-oncogene 1, non-receptor tyrosine kinase) (eg, acquired imatinib tyrosine kinase inhibitor resistance), gene analysis, variants in the kinase domain		Review in panels	Review in panels	Review in panels
81171	AFF2 (ALF transcription elongation factor 2 [FMR2]) (eg, fragile X intellectual disability 2 [FRAXE]) gene analysis; evaluation to detect abnormal (eg, expanded) alleles		Review in panels	Review in panels	Review in panels
81172	AFF2 (ALF transcription elongation factor 2 [FMR2]) (eg, fragile X intellectual disability 2 [FRAXE]) gene analysis; characterization of alleles (eg, expanded size and methylation status)		Review in panels	Review in panels	Review in panels
81173	AR (androgen receptor) (eg, spinal and bulbar muscular atrophy, Kennedy disease, X chromosome inactivation) gene analysis; full gene sequence		eC PA	eC PA	eC PA
81174	AR (androgen receptor) (eg, spinal and bulbar muscular atrophy, Kennedy disease, X chromosome inactivation) gene analysis; known familial variant		eC PA	eC PA	eC PA
81175	ASXL1 (additional sex combs like 1, transcriptional regulator) (eg, myelodysplastic syndrome, myeloproliferative neoplasms, chronic myelomonocytic leukemia), gene analysis; full gene sequence		Review in panels	Review in panels	Review in panels

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81176	ASXL1 (additional sex combs like 1, transcriptional regulator) (eg, myelodysplastic syndrome, myeloproliferative neoplasms, chronic myelomonocytic leukemia), gene analysis; targeted sequence analysis (eg, exon 12)		Review in panels	Review in panels	Review in panels
81177	ATN1 (atrophin 1) (eg, dentatorubral-pallidoluysian atrophy) gene analysis, evaluation to detect abnormal (eg, expanded) alleles		Review in panels	Review in panels	Review in panels
81178	ATXN1 (ataxin 1) (eg, spinocerebellar ataxia) gene analysis, evaluation to detect abnormal (eg, expanded) alleles		Review in panels	Review in panels	Review in panels
81179	ATXN2 (ataxin 2) (eg, spinocerebellar ataxia) gene analysis, evaluation to detect abnormal (eg, expanded) alleles		Review in panels	Review in panels	Review in panels
81180	ATXN3 (ataxin 3) (eg, spinocerebellar ataxia, Machado-Joseph disease) gene analysis, evaluation to detect abnormal (eg, expanded) alleles		Review in panels	Review in panels	Review in panels
81181	ATXN7 (ataxin 7) (eg, spinocerebellar ataxia) gene analysis, evaluation to detect abnormal (eg, expanded) alleles		Review in panels	Review in panels	Review in panels
81182	ATXN8OS (ATXN8 opposite strand [non-protein coding]) (eg, spinocerebellar ataxia) gene analysis, evaluation to detect abnormal (eg, expanded) alleles		Review in panels	Review in panels	Review in panels
81183	ATXN10 (ataxin 10) (eg, spinocerebellar ataxia) gene analysis, evaluation to detect abnormal (eg, expanded) alleles		Review in panels	Review in panels	Review in panels
81184	CACNA1A (calcium voltage-gated channel subunit alpha1 A) (eg, spinocerebellar ataxia) gene analysis; evaluation to detect abnormal (eg, expanded) alleles		Review in panels	Review in panels	Review in panels
81185	CACNA1A (calcium voltage-gated channel subunit alpha1 A) (eg, spinocerebellar ataxia) gene analysis; full gene sequence		eC PA	eC PA	eC PA
81186	CACNA1A (calcium voltage-gated channel subunit alpha1 A) (eg, spinocerebellar ataxia) gene analysis; known familial variant		eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81187	CNBP (CCHC-type zinc finger nucleic acid binding protein) (eg, myotonic dystrophy type 2) gene analysis, evaluation to detect abnormal (eg, expanded) alleles		Review in panels	Review in panels	Review in panels
81188	CSTB (cystatin B) (eg, Unverricht-Lundborg disease) gene analysis; evaluation to detect abnormal (eg, expanded) alleles		Review in panels	Review in panels	Review in panels
81189	CSTB (cystatin B) (eg, Unverricht-Lundborg disease) gene analysis; full gene sequence		eC PA	eC PA	eC PA
81190	CSTB (cystatin B) (eg, Unverricht-Lundborg disease) gene analysis; known familial variant(s)		eC PA	eC PA	eC PA
81191	NTRK1 (neurotrophic receptor tyrosine kinase 1) (eg, solid tumors) translocation analysis		Review in panels	Review in panels	Review in panels
81192	NTRK2 (neurotrophic receptor tyrosine kinase 2) (eg, solid tumors) translocation analysis		Review in panels	Review in panels	Review in panels
81193	NTRK3 (neurotrophic receptor tyrosine kinase 3) (eg, solid tumors) translocation analysis		Review in panels	Review in panels	Review in panels
81194	NTRK (neurotrophic-tropomyosin receptor tyrosine kinase 1, 2, and 3) (eg, solid tumors) translocation analysis		Review in panels	Review in panels	Review in panels
81195	Cytogenomic (genome-wide) analysis, hematologic malignancy, structural variants and copy number variants, optical genome mapping (OGM)		eC PA	eC PA	eC PA
81200	ASPA (aspartoacylase) (eg, Canavan disease) gene analysis, common variants (eg, E285A, Y231X)		Review in panels	Review in panels	Not Covered
81201	APC (adenomatous polyposis coli) (eg, familial adenomatosis polyposis [FAP], attenuated FAP) gene analysis; full gene sequence		eC PA	eCPA	eC PA
81202	APC (adenomatous polyposis coli) (eg, familial adenomatosis polyposis [FAP], attenuated FAP) gene analysis; known familial variants		eC PA	eC PA	eC PA
81203	APC (adenomatous polyposis coli) (eg, familial adenomatosis polyposis [FAP], attenuated FAP) gene analysis; duplication/deletion variants		eC PA	eCPA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81204	AR (androgen receptor) (eg, spinal and bulbar muscular atrophy, Kennedy disease, X chromosome inactivation) gene analysis; characterization of alleles (eg, expanded size or methylation status)		Review in panels	Review in panels	Review in panels
81205	BCKDHB (branched-chain keto acid dehydrogenase E1, beta polypeptide) (eg, Maple syrup urine disease) gene analysis, common variants (eg, R183P, G278S, E422X)		Review in panels	Review in panels	Review in panels
81206	BCR/ABL1 (t(9;22)) (eg, chronic myelogenous leukemia) translocation analysis; major breakpoint, qualitative or quantitative		Review in panels	Review in panels	Review in panels
81207	BCR/ABL1 (t(9;22)) (eg, chronic myelogenous leukemia) translocation analysis; minor breakpoint, qualitative or quantitative		Review in panels	Review in panels	Review in panels
81208	BCR/ABL1 (t(9;22)) (eg, chronic myelogenous leukemia) translocation analysis; other breakpoint, qualitative or quantitative		Review in panels	Review in panels	Review in panels
81209	BLM (Bloom syndrome, RecQ helicase-like) (eg, Bloom syndrome) gene analysis, 2281del6ins7 variant		Review in panels	Review in panels	Review in panels
81210	BRAF RAF proto oncognene, serine/threonine kinase (e.g., colon cancer, melanoma), gene analysis, V600 variant(s)		Review in panels	Review in panels	Review in panels
81212	BRCA1, BRCA2 (breast cancer 1 and 2) (eg, hereditary breast and ovarian cancer) gene analysis; 185delAG, 5385insC, 6174delT variants		eC PA	eC PA	eC PA
81215	BRCA1 (breast cancer 1) (eg, hereditary breast and ovarian cancer) gene analysis; known familial variant		eC PA	eC PA	eC PA
81216	BRCA2 (breast cancer 2) (eg, hereditary breast and ovarian cancer) gene analysis; full sequence analysis		eC PA	eC PA	eC PA
81217	BRCA2 (breast cancer 2) (eg, hereditary breast and ovarian cancer) gene analysis; known familial variant		eC PA	eC PA	eC PA
81218	CEBPA (CCAAT/enhancer binding protein [C/EBP], alpha) (eg, acute myeloid leukemia), gene analysis, full gene sequence		Review in panels	Review in panels	Review in panels

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81219	CALR (calreticulin) (eg, myeloproliferative disorders), gene analysis, common variants in exon 9		Review in panels	Review in panels	Review in panels
81220	CFTR (cystic fibrosis transmembrane conductance regulator) (eg, cystic fibrosis) gene analysis; common variants (eg, ACMG/ACOG guidelines)		Review in panels	Not Covered	Review in Panels
81221	CFTR (cystic fibrosis transmembrane conductance regulator) (eg, cystic fibrosis) gene analysis; known familial variants		eC PA	eC PA	eC PA
81222	CFTR (cystic fibrosis transmembrane conductance regulator) (eg, cystic fibrosis) gene analysis; duplication/deletion variants		eC PA	eC PA	eC PA
81223	CFTR (cystic fibrosis transmembrane conductance regulator) (eg, cystic fibrosis) gene analysis; full gene sequence		eC PA	eC PA	eC PA
81224	CFTR (cystic fibrosis transmembrane conductance regulator) (eg, cystic fibrosis) gene analysis; intron 8 poly-T analysis (eg, male infertility)		Review in panels	Not Covered	Review in panels
81225	CYP2C19 (cytochrome P450, family 2, subfamily C, polypeptide 19) (eg, drug metabolism), gene analysis, common variants (eg, *2, *3, *4, *8, *17)		eC PA	eC PA	eC PA
81226	CYP2D6 (cytochrome P450, family 2, subfamily D, polypeptide 6) (eg, drug metabolism), gene analysis, common variants (eg, *2, *3, *4, *5, *6, *9, *10, *17, *19, *29, *35, *41, *1XN, *2XN, *4XN)		eC PA	eC PA	eC PA
81227	CYP2C9 (cytochrome P450, family 2, subfamily C, polypeptide 9) (eg, drug metabolism), gene analysis, common variants (eg, *2, *3, *5, *6)		eC PA	eC PA	eC PA
81228	Cytogenomic (genome-wide) analysis for constitutional chromosomal abnormalities; interrogation of genomic regions for copy number variants, comparative genomic hybridization [CGH] microarray analysis		eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81229	Cytogenomic (genome-wide) analysis for constitutional chromosomal abnormalities; interrogation of genomic regions for copy number and single nucleotide polymorphism (SNP) variants, comparative genomic hybridization (CGH) microarray analysis		eC PA	eC PA	eC PA
81230	CYP3A4 (cytochrome P450 family 3 subfamily A member 4) (eg, drug metabolism), gene analysis, common variant(s) (eg, *2, *22)		eC PA	eC PA	eC PA
81231	CYP3A5 (cytochrome P450 family 3 subfamily A member 5) (eg, drug metabolism), gene analysis, common variants (eg, *2, *3, *4, *5, *6, *7)		eC PA	eC PA	eC PA
81232	DPYD (dihydropyrimidine dehydrogenase) (eg, 5-fluorouracil/5-FU and capecitabine drug metabolism), gene analysis, common variant(s) (eg, *2A, *4, *5, *6)		eC PA	eC PA	eC PA
81233	BTK (Bruton's tyrosine kinase) (eg, chronic lymphocytic leukemia) gene analysis, common variants (eg, C481S, C481R, C481F)		Review in panels	Review in panels	Review in panels
81234	DMPK (DM1 protein kinase) (eg, myotonic dystrophy type 1) gene analysis; evaluation to detect abnormal (expanded) alleles		Review in panels	Review in panels	Review in panels
81235	EGFR (epidermal growth factor receptor) (eg, non-small cell lung cancer) gene analysis, common variants (eg, exon 19 LREA deletion, L858R, T790M, G719A, G719S, L861Q)		Review in panels	Review in panels	Review in panels
81236	EZH2 (enhancer of zeste 2 polycomb repressive complex 2 subunit) (eg, myelodysplastic syndrome, myeloproliferative neoplasms) gene analysis, full gene sequence		Review in panels	Review in panels	Review in panels
81237	EZH2 (enhancer of zeste 2 polycomb repressive complex 2 subunit) (eg, diffuse large B-cell lymphoma) gene analysis, common variant(s) (eg, codon 646)		Review in panels	Review in panels	Review in panels
81238	F9 (coagulation factor IX) (eg, hemophilia B), full gene sequence		eC PA	eC PA	eC PA
81239	DMPK (DM1 protein kinase) (eg, myotonic dystrophy type 1) gene analysis; characterization of alleles (eg, expanded size)		Review in panels	Review in panels	Review in panels

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81240	F2 (prothrombin, coagulation factor II) (eg, hereditary hypercoagulability) gene analysis, 20210G>A variant		Review in panels	Review in panels	Not Covered
81241	F5 (coagulation Factor V) (eg, hereditary hypercoagulability) gene analysis, Leiden variant		Review in panels	Review in panels	Not Covered
81242	FANCC (Fanconi anemia, complementation group C) (eg, Fanconi anemia, type C) gene analysis, common variant (eg, IVS4+4A>T)		Review in panels	Review in panels	Not Covered
81243	FMR1 (fragile X messenger ribonucleoprotein 1) (eg, fragile X syndrome, X-linked intellectual disability [XLID]) gene analysis; evaluation to detect abnormal (eg, expanded) alleles		Review in panels	Review in panels	Not Covered
81244	FMR1 (fragile X messenger ribonucleoprotein 1) (eg, fragile X syndrome, X-linked intellectual disability [XLID]) gene analysis; characterization of alleles (eg, expanded size and promoter methylation status)		Review in panels	Review in panels	Not Covered
81245	FLT3 (fms-related tyrosine kinase 3) (eg, acute myeloid leukemia), gene analysis, internal tandem duplication (ITD) variants (ie, exons 14, 15)		Review in panels	Review in panels	Review in panels
81246	FLT3 (fms-related tyrosine kinase 3) (eg, acute myeloid leukemia), gene analysis; tyrosine kinase domain (TKD) variants (eg, D835, I836)		Review in panels	Not Covered	Review in panels
81247	G6PD (glucose-6-phosphate dehydrogenase) (eg, hemolytic anemia, jaundice), gene analysis; common variant(s) (eg, A, A-)		Review in panels	Review in panels	Review in panels
81248	G6PD (glucose-6-phosphate dehydrogenase) (eg, hemolytic anemia, jaundice), gene analysis; known familial variant(s)		eC PA	eC PA	eC PA
81249	G6PD (glucose-6-phosphate dehydrogenase) (eg, hemolytic anemia, jaundice), gene analysis; full gene sequence		eC PA	eC PA	eC PA
81250	G6PC (glucose-6-phosphatase, catalytic subunit) (eg, Glycogen storage disease, Type 1a, von Gierke disease) gene analysis, common variants (eg, R83C, Q347X)		Review in panels	Review in panels	Not Covered
81251	GBA (glucosidase, beta, acid) (eg, Gaucher disease) gene analysis, common variants (eg, N370S, 84GG, L444P, IVS2+1G>A)		Review in panels	Review in panels	Not Covered

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81252	GJB2 (gap junction protein, beta 2, 26kDa; connexin 26) (eg, nonsyndromic hearing loss) gene analysis; full gene sequence		eC PA	eC PA	eC PA
81253	GJB2 (gap junction protein, beta 2, 26kDa; connexin 26) (eg, nonsyndromic hearing loss) gene analysis; known familial variants		eC PA	eC PA	eC PA
81254	GJB6 (gap junction protein, beta 6, 30kDa, connexin 30) (eg, nonsyndromic hearing loss) gene analysis, common variants (eg, 309kb [del(GJB6-D13S1830)] and 232kb [del(GJB6-D13S1854)])		eC PA	eC PA	eC PA
81255	HEXA (hexosaminidase A [alpha polypeptide]) (eg, Tay-Sachs disease) gene analysis, common variants (eg, 1278insTATC, 1421+1G>C, G269S)		Review in panels	Review in panels	Not Covered
81256	HFE (hemochromatosis) (eg, hereditary hemochromatosis) gene analysis, common variants (eg, C282Y, H63D)		Review in panels	Review in panels	Review in panels
81257	HBA1/HBA2 (alpha globin 1 and alpha globin 2) (eg, alpha thalassemia, Hb Bart hydrops fetalis syndrome, HbH disease), gene analysis, for common deletions or variant (eg, Southeast Asian, Thai, Filipino, Mediterranean, alpha3.7, alpha4.2, alpha20.5, and Constant Spring)		eC PA	eC PA	eC PA
81258	HBA1/HBA2 (alpha globin 1 and alpha globin 2) (eg, alpha thalassemia, Hb Bart hydrops fetalis syndrome, HbH disease), gene analysis; known familial variant		eC PA	eC PA	eC PA
81259	HBA1/HBA2 (alpha globin 1 and alpha globin 2) (eg, alpha thalassemia, Hb Bart hydrops fetalis syndrome, HbH disease), gene analysis; full gene sequence		eC PA	eC PA	eC PA
81260	IKBKAP (inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase complex-associated protein) (eg, familial dysautonomia) gene analysis, common variants (eg, 2507+6T>C, R696P)		Review in panels	Review in Panels	Not Covered
81261	IGH@ (Immunoglobulin heavy chain locus) (eg, leukemias and lymphomas, B-cell), gene rearrangement analysis to detect abnormal clonal population(s); amplified methodology (eg, polymerase chain reaction)		Review in panels	Review in panels	Review in panels

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81262	IGH@ (Immunoglobulin heavy chain locus) (eg, leukemias and lymphomas, B-cell), gene rearrangement analysis to detect abnormal clonal population(s); direct probe methodology (eg, Southern blot)		Review in panels	Review in panels	Review in panels
81263	IGH@ (Immunoglobulin heavy chain locus) (eg, leukemia and lymphoma, B-cell), variable region somatic mutation analysis		Review in panels	Review in panels	Review in panels
81264	IGK@ (Immunoglobulin kappa light chain locus) (eg, leukemia and lymphoma, B-cell), gene rearrangement analysis, evaluation to detect abnormal clonal population(s)		Review in panels	Review in panels	Review in panels
81265	Comparative analysis using Short Tandem Repeat (STR) markers; patient and comparative specimen (eg, pre-transplant recipient and donor germline testing, post-transplant non-hematopoietic recipient germline [eg, buccal swab or other germline tissue sample] and donor testing, twin zygosity testing, or maternal cell contamination of fetal cells)		Review in panels	Review in panels	Review in panels
81266	Comparative analysis using Short Tandem Repeat (STR) markers; each additional specimen (eg, additional cord blood donor, additional fetal samples from different cultures, or additional zygosity in multiple birth pregnancies) (List separately in addition to code for primary procedure)		Review in panels	Review in panels	Review in panels
81267	Chimerism (engraftment) analysis, post transplantation specimen (eg, hematopoietic stem cell), includes comparison to previously performed baseline analyses; without cell selection		Review in panels	Review in panels	Review in panels
81268	Chimerism (engraftment) analysis, post transplantation specimen (eg, hematopoietic stem cell), includes comparison to previously performed baseline analyses; with cell selection (eg, CD3, CD33), each cell type		Review in panels	Review in panels	Review in panels
81269	HBA1/HBA2 (alpha globin 1 and alpha globin 2) (eg, alpha thalassemia, Hb Bart hydrops fetalis syndrome, HbH disease), gene analysis; duplication/deletion variants		eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81270	JAK2 (Janus kinase 2) (eg, myeloproliferative disorder) gene analysis, p.Val617Phe (V617F) variant		Review in panels	Review in panels	Review in panels
81271	HTT (huntingtin) (eg, Huntington disease) gene analysis; evaluation to detect abnormal (eg, expanded) alleles		Review in panels	Review in panels	Review in panels
81272	KIT (v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog) (eg, gastrointestinal stromal tumor [GIST], acute myeloid leukemia, melanoma), gene analysis, targeted sequence analysis (eg, exons 8, 11, 13, 17, 18)		Review in panels	Review in panels	Review in panels
81273	KIT (v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog) (eg, mastocytosis), gene analysis, D816 variant(s)		Review in panels	Review in panels	Review in panels
81274	HTT (huntingtin) (eg, Huntington disease) gene analysis; characterization of alleles (eg, expanded size)		Review in panels	Review in panels	Review in panels
81275	KRAS (Kirsten rat sarcoma viral oncogene) (eg, carcinoma) gene analysis, variants in codons 12 and 13; variants in exon 2 (e.g. Condons 12 and 13)		Review in panels	Review in panels	Review in panels
81276	KRAS (Kirsten rat sarcoma viral oncogene homolog) (eg, carcinoma) gene analysis; additional variant(s) (eg, codon 61, codon 146)	Same as 81275	Review in panels	Review in panels	Review in panels
81277	Cytogenomic neoplasia (genome-wide) microarray analysis, interrogation of genomic regions for copy number and loss-of-heterozygosity variants for chromosomal abnormalities		eC PA	eC PA	eC PA
81278	IGH@/BCL2 (t(14;18)) (eg, follicular lymphoma) translocation analysis, major breakpoint region (MBR) and minor cluster region (mcr) breakpoints, qualitative or quantitative		Review in panels	Review in panels	Review in panels
81279	JAK2 (Janus kinase 2) (eg, myeloproliferative disorder) targeted sequence analysis (eg, exons 12 and 13)		Review in panels	Review in panels	Review in panels
81283	IFNL3 (interferon, lambda 3) (eg, drug response), gene analysis, rs12979860 variant		eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81284	FXN (frataxin) (eg, Friedreich ataxia) gene analysis; evaluation to detect abnormal (expanded) alleles		Review in panels	Review in panels	Review in panels
81285	FXN (frataxin) (eg, Friedreich ataxia) gene analysis; characterization of alleles (eg, expanded size)		Review in panels	Review in panels	Review in panels
81286	FXN (frataxin) (eg, Friedreich ataxia) gene analysis; full gene sequence		eC PA	eC PA	eC PA
81287	MGMT (O-6-methylguanine-DNA methyltransferase) (eg, glioblastoma multiforme), methylation analysis		Review in panels	Not Covered	Review in panels
81288	MLH1 (mutL homolog 1, colon cancer, nonpolyposis type 2) (eg, hereditary non-polyposis colorectal cancer, Lynch syndrome) gene analysis; promoter methylation analysis		Review in panels	Not Covered	Review in panels
81289	FXN (frataxin) (eg, Friedreich ataxia) gene analysis; known familial variant(s)		eC PA	eC PA	eC PA
81290	MCOLN1 (mucolipin 1) (eg, Mucolipidosis, type IV) gene analysis, common variants (eg, IVS3-2A>G, del6.4kb)		Review in panels	Review in panels	Not Covered
81291	MTHFR (5,10-methylenetetrahydrofolate reductase) (eg, hereditary hypercoagulability) gene analysis, common variants (eg, 677T, 1298C)		eC PA	eC PA	eC PA
81292	MLH1 (mutL homolog 1, colon cancer, nonpolyposis type 2) (eg, hereditary non-polyposis colorectal cancer, Lynch syndrome) gene analysis; full sequence analysis		eC PA	eC PA	eC PA
81293	MLH1 (mutL homolog 1, colon cancer, nonpolyposis type 2) (eg, hereditary non-polyposis colorectal cancer, Lynch syndrome) gene analysis; known familial variants		eC PA	eC PA	eC PA
81294	MLH1 (mutL homolog 1, colon cancer, nonpolyposis type 2) (eg, hereditary non-polyposis colorectal cancer, Lynch syndrome) gene analysis; duplication/deletion variants		eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81295	MSH2 (mutS homolog 2, colon cancer, nonpolyposis type 1) (eg, hereditary non-polyposis colorectal cancer, Lynch syndrome) gene analysis; full sequence analysis		eC PA	eC PA	eC PA
81296	MSH2 (mutS homolog 2, colon cancer, nonpolyposis type 1) (eg, hereditary non-polyposis colorectal cancer, Lynch syndrome) gene analysis; known familial variants		eC PA	eC PA	eC PA
81297	MSH2 (mutS homolog 2, colon cancer, nonpolyposis type 1) (eg, hereditary non-polyposis colorectal cancer, Lynch syndrome) gene analysis; duplication/deletion variants		eC PA	eC PA	eC PA
81298	MSH6 (mutS homolog 6 [E. coli]) (eg, hereditary non-polyposis colorectal cancer, Lynch syndrome) gene analysis; full sequence analysis		eC PA	eC PA	eC PA
81299	MSH6 (mutS homolog 6 [E. coli]) (eg, hereditary non-polyposis colorectal cancer, Lynch syndrome) gene analysis; known familial variants		eC PA	eC PA	eC PA
81300	MSH6 (mutS homolog 6 [E. coli]) (eg, hereditary non-polyposis colorectal cancer, Lynch syndrome) gene analysis; duplication/deletion variants		eC PA	eC PA	eC PA
81301	Microsatellite instability analysis (eg, hereditary non-polyposis colorectal cancer, Lynch syndrome) of markers for mismatch repair deficiency (eg, BAT25, BAT26), includes comparison of neoplastic and normal tissue, if performed		Review in panels	Review in panels	Review in panels
81302	MECP2 (methyl CpG binding protein 2) (eg, Rett syndrome) gene analysis; full sequence analysis		eC PA	eC PA	eC PA
81303	MECP2 (methyl CpG binding protein 2) (eg, Rett syndrome) gene analysis; known familial variant		eC PA	eC PA	eC PA
81304	MECP2 (methyl CpG binding protein 2) (eg, Rett syndrome) gene analysis; duplication/deletion variants		eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81305	MYD88 (myeloid differentiation primary response 88) (eg, Waldenstrom's macroglobulinemia, lymphoplasmacytic leukemia) gene analysis, p.Leu265Pro (L265P) variant		Review in panels	Review in panels	Review in panels
81306	NUDT15 (nudix hydrolase 15) (eg, drug metabolism) gene analysis, common variant(s) (eg, *2, *3, *4, *5, *6)		eC PA	eC PA	eC PA
81307	PALB2 (partner and localizer of BRCA2) (eg, breast and pancreatic cancer) gene analysis; full gene sequence		eC PA	eC PA	eC PA
81308	PALB2 (partner and localizer of BRCA2) (eg, breast and pancreatic cancer) gene analysis; known familial variant		eC PA	eC PA	eC PA
81309	PIK3CA (phosphatidylinositol-4, 5-biphosphate 3-kinase, catalytic subunit alpha) (eg, colorectal and breast cancer) gene analysis, targeted sequence analysis (eg, exons 7, 9, 20)		Review in panels	Review in panels	Review in panels
81310	NPM1 (nucleophosmin) (eg, acute myeloid leukemia) gene analysis, exon 12 variants		Review in panels	Review in panels	Review in panels
81311	NRAS (neuroblastoma RAS viral [v-ras] oncogene homolog) (eg, colorectal carcinoma), gene analysis, variants in exon 2 (eg, codons 12 and 13) and exon 3 (eg, codon 61)		Review in panels	Review in panels	Review in panels
81312	PABPN1 (poly[A] binding protein nuclear 1) (eg, oculopharyngeal muscular dystrophy) gene analysis, evaluation to detect abnormal (eg, expanded) alleles		Review in panels	Review in panels	Review in panels
81313	PCA3/KLK3 (prostate cancer antigen 3 [non-protein coding]/kallikrein-related peptidase 3 [prostate specific antigen]) ratio (eg, prostate cancer)		eC PA	eC PA	eC PA
81314	PDGFRA (platelet-derived growth factor receptor, alpha polypeptide) (eg, gastrointestinal stromal tumor [GIST]), gene analysis, targeted sequence analysis (eg, exons 12, 18)		Review in panels	Review in panels	Review in panels

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81315	PML/RARalpha, (t(15;17)), (promyelocytic leukemia/retinoic acid receptor alpha) (eg, promyelocytic leukemia) translocation analysis; common breakpoints (eg, intron 3 and intron 6), qualitative or quantitative		Review in panels	Review in panels	Review in panels
81316	PML/RARalpha, (t(15;17)), (promyelocytic leukemia/retinoic acid receptor alpha) (eg, promyelocytic leukemia) translocation analysis; single breakpoint (eg, intron 3, intron 6 or exon 6), qualitative or quantitative		Review in panels	Review in panels	Review in panels
81317	PMS2 (postmeiotic segregation increased 2 [S. cerevisiae]) (eg, hereditary non-polyposis colorectal cancer, Lynch syndrome) gene analysis; full sequence analysis		eC PA	eC PA	eC PA
81318	PMS2 (postmeiotic segregation increased 2 [S. cerevisiae]) (eg, hereditary non-polyposis colorectal cancer, Lynch syndrome) gene analysis; known familial variants		eC PA	eC PA	eC PA
81319	PMS2 (postmeiotic segregation increased 2 [S. cerevisiae]) (eg, hereditary non-polyposis colorectal cancer, Lynch syndrome) gene analysis; duplication/deletion variants		eC PA	eC PA	eC PA
81320	PLCG2 (phospholipase C gamma 2) (eg, chronic lymphocytic leukemia) gene analysis, common variants (eg, R665W, S707F, L845F)		Review in panels	Review in panels	Review in panels
81321	PTEN (phosphatase and tensin homolog) (eg, Cowden syndrome, PTEN hamartoma tumor syndrome) gene analysis; full sequence analysis		eC PA	eC PA	eC PA
81322	PTEN (phosphatase and tensin homolog) (eg, Cowden syndrome, PTEN hamartoma tumor syndrome) gene analysis; known familial variant		eC PA	eC PA	eC PA
81323	PTEN (phosphatase and tensin homolog) (eg, Cowden syndrome, PTEN hamartoma tumor syndrome) gene analysis; duplication/deletion variant		eC PA	eC PA	eC PA
81324	PMP22 (peripheral myelin protein 22) (eg, Charcot-Marie-Tooth, hereditary neuropathy with liability to pressure palsies) gene analysis; duplication/deletion analysis		Review in panels	Not Covered	Not Covered

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81325	PMP22 (peripheral myelin protein 22) (eg, Charcot-Marie-Tooth, hereditary neuropathy with liability to pressure palsies) gene analysis; full sequence analysis		eC PA	eC PA	eC PA
81326	PMP22 (peripheral myelin protein 22) (eg, Charcot-Marie-Tooth, hereditary neuropathy with liability to pressure palsies) gene analysis; known familial variant		eC PA	eC PA	eC PA
81327	SEPT9 (Septin9) (eg, colorectal cancer) methylation analysis	**ColoVantage®** (Clinical Genomics) **EPI proColon** (Polymedco)	eC PA	eC PA	eC PA
81328	SLCO1B1 (solute carrier organic anion transporter family, member 1B1) (eg, adverse drug reaction), gene analysis, common variant(s) (eg, *5)		eC PA	eC PA	eC PA
81329	SMN1 (survival of motor neuron 1, telomeric) (eg, spinal muscular atrophy) gene analysis; dosage/deletion analysis (eg, carrier testing), includes SMN2 (survival of motor neuron 2, centromeric) analysis, if performed		Review in panels	Review in panels	Review in panels
81330	SMPD1(sphingomyelin phosphodiesterase 1, acid lysosomal) (eg, Niemann-Pick disease, Type A) gene analysis, common variants (eg, R496L, L302P, fsP330)		Review in panels	Review in panels	Not Covered
81331	SNRPN/UBE3A (small nuclear ribonucleoprotein polypeptide N and ubiquitin protein ligase E3A) (eg, Prader-Willi syndrome and/or Angelman syndrome), methylation analysis		Review in panels	Review in panels	Not Covered
81332	SERPINA1 (serpin peptidase inhibitor, clade A, alpha-1 antiproteinase, antitrypsin, member 1) (eg, alpha-1-antitrypsin deficiency), gene analysis, common variants (eg, *S and *Z)		Review in panels	Review in panels	Review in Panels
81333	TGFBI (transforming growth factor beta-induced) (eg, corneal dystrophy) gene analysis, common variants (eg, R124H, R124C, R124L, R555W, R555Q)		Review in panels	Review in panels	Review in panels
81334	RUNX1 (runt related transcription factor 1) (eg, acute myeloid leukemia, familial platelet disorder with associated myeloid malignancy), gene analysis, targeted sequence analysis (eg, exons 3-8)		Review in panels	Not Covered	Review in panels

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81335	TPMT (thiopurine S-methyltransferase) (eg, drug metabolism), gene analysis, common variants (eg, *2, *3)		eC PA	eC PA	eC PA
81336	SMN1 (survival of motor neuron 1, telomeric) (eg, spinal muscular atrophy) gene analysis; full gene sequence		eC PA	eC PA	eC PA
81337	SMN1 (survival of motor neuron 1, telomeric) (eg, spinal muscular atrophy) gene analysis; known familial sequence variant(s)		eC PA	eC PA	eC PA
81338	MPL (MPL proto-oncogene, thrombopoietin receptor) (eg, myeloproliferative disorder) gene analysis; common variants (eg, W515A, W515K, W515L, W515R)		Review in panels	Review in panels	Review in panels
81339	MPL (MPL proto-oncogene, thrombopoietin receptor) (eg, myeloproliferative disorder) gene analysis; sequence analysis, exon 10		Review in panels	Review in panels	Review in panels
81340	TRB@ (T cell antigen receptor, beta) (eg, leukemia and lymphoma), gene rearrangement analysis to detect abnormal clonal population(s); using amplification methodology (eg, polymerase chain reaction)		Review in panels	Review in panels	Review in panels
81341	TRB@ (T cell antigen receptor, beta) (eg, leukemia and lymphoma), gene rearrangement analysis to detect abnormal clonal population(s); using direct probe methodology (eg, Southern blot)		Review in panels	Review in panels	Review in panels
81342	TRG@ (T cell antigen receptor, gamma) (eg, leukemia and lymphoma), gene rearrangement analysis, evaluation to detect abnormal clonal population(s)		Review in panels	Review in panels	Review in panels
81343	PPP2R2B (protein phosphatase 2 regulatory subunit Bbeta) (eg, spinocerebellar ataxia) gene analysis, evaluation to detect abnormal (eg, expanded) alleles		Review in panels	Review in panels	Review in panels
81344	TBP (TATA box binding protein) (eg, spinocerebellar ataxia) gene analysis, evaluation to detect abnormal (eg, expanded) alleles		Review in panels	Review in panels	Review in panels

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81345	TERT (telomerase reverse transcriptase) (eg, thyroid carcinoma, glioblastoma multiforme) gene analysis, targeted sequence analysis (eg, promoter region)		Review in panels	Review in panels	Review in panels
81346	TYMS (thymidylate synthetase) (eg, 5-fluorouracil/5-FU drug metabolism), gene analysis, common variant(s) (eg, tandem repeat variant)		eC PA	eC PA	eC PA
81347	SF3B1 (splicing factor [3b] subunit B1) (eg, myelodysplastic syndrome/acute myeloid leukemia) gene analysis, common variants (eg, A672T, E622D, L833F, R625C, R625L)		Review in panels	Review in panels	Review in panels
81348	SRSF2 (serine and arginine-rich splicing factor 2) (eg, myelodysplastic syndrome, acute myeloid leukemia) gene analysis, common variants (eg, P95H, P95L)		Review in panels	Review in panels	Review in panels
81349	Cytogenomic (genome-wide) analysis for constitutional chromosomal abnormalities; interrogation of genomic regions for copy number and loss-of-heterozygosity variants, low-pass sequencing analysis		eC PA	eC PA	eC PA
81350	UGT1A1 (UDP glucuronosyltransferase 1 family, polypeptide A1) (eg, irinotecan metabolism), gene analysis, common variants (eg, *28, *36, *37)		eC PA	eC PA	eC PA
81351	TP53 (tumor protein 53) (eg, Li-Fraumeni syndrome) gene analysis; full gene sequence		eC PA	eC PA	eC PA
81352	TP53 (tumor protein 53) (eg, Li-Fraumeni syndrome) gene analysis; targeted sequence analysis (eg, 4 oncology)		Review in Panels	Review in Panels	Review in Panels
81353	TP53 (tumor protein 53) (eg, Li-Fraumeni syndrome) gene analysis; known familial variant		eC PA	eC PA	eC PA
81355	VKORC1 (vitamin K epoxide reductase complex, subunit 1) (eg, warfarin metabolism), gene analysis, common variant(s) (eg, 1639G>A, c.a73+1000C>T)		eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81357	U2AF1 (U2 small nuclear RNA auxiliary factor 1) (eg, myelodysplastic syndrome, acute myeloid leukemia) gene analysis, common variants (eg, S34F, S34Y, Q157R, Q157P)		Review in panels	Review in panels	Review in panels
81360	ZRSR2 (zinc finger CCCH-type, RNA binding motif and serine/arginine-rich 2) (eg, myelodysplastic syndrome, acute myeloid leukemia) gene analysis, common variant(s) (eg, E65fs, E122fs, R448fs)		Review in panels	Review in panels	Review in panels
81361	HBB (hemoglobin, subunit beta) (eg, sickle cell anemia, beta thalassemia, hemoglobinopathy); common variant(s) (eg, HbS, HbC, HbE)		eC PA	eC PA	eC PA
81362	HBB (hemoglobin, subunit beta) (eg, sickle cell anemia, beta thalassemia, hemoglobinopathy); known familial variant(s)		eC PA	eC PA	eC PA
81363	HBB (hemoglobin, subunit beta) (eg, sickle cell anemia, beta thalassemia, hemoglobinopathy); duplication/deletion variant(s)		eC PA	eC PA	eC PA
81364	HBB (hemoglobin, subunit beta) (eg, sickle cell anemia, beta thalassemia, hemoglobinopathy); full gene sequence		eC PA	eC PA	eC PA
81370	HLA Class I and II typing, low resolution (eg, antigen equivalents); HLA-A, -B, -C, -DRB1/3/4/5, and -DQB1		Review in panels	Review in panels	Review in panels
81371	HLA Class I and II typing, low resolution (eg, antigen equivalents); HLA-A, -B, and -DRB1/3/4/5 (eg, verification typing)		Review in panels	Review in panels	Review in panels
81372	HLA Class I typing, low resolution (eg, antigen equivalents); complete (ie, HLA-A, -B, and -C)		Review in panels	Review in panels	Review in panels
81373	HLA Class I typing, low resolution (eg, antigen equivalents); 1 locus (eg, HLA-A, -B, or -C), each		Review in panels	Review in panels	Review in panels
81374	HLA Class I typing, low resolution (eg, antigen equivalents); 1 antigen equivalent (eg, B*27), each		Review in panels	Review in panels	Review in panels
81375	HLA Class II typing, low resolution (eg, antigen equivalents); HLA-DRB1/3/4/5 and -DQB1		Review in panels	Review in panels	Review in panels

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81376	HLA Class II typing, low resolution (eg, antigen equivalents); 1 locus (eg, HLA-DRB1/3/4/5, -DQB1, -DQA1, -DPB1, or -DPA1), each		Review in panels	Review in panels	Review in panels
81377	HLA Class II typing, low resolution (eg, antigen equivalents); 1 antigen equivalent, each		Review in panels	Review in panels	Review in panels
81378	HLA Class I and II typing, high resolution (ie, alleles or allele groups), HLA-A, -B, -C, and -DRB1		Review in panels	Review in panels	Review in panels
81379	HLA Class I typing, high resolution (ie, alleles or allele groups); complete (ie, HLA-A, -B, and -C)		Review in panels	Review in panels	Review in panels
81380	HLA Class I typing, high resolution (ie, alleles or allele groups); 1 locus (eg, HLA-A, -B, or -C), each		Review in panels	Review in panels	Review in panels
81381	HLA Class I typing, high resolution (ie, alleles or allele groups); 1 allele or allele group (eg, B*57:01P), each		Review in panels	Review in panels	Review in panels
81382	HLA Class II typing, high resolution (ie, alleles or allele groups); 1 locus (eg, HLA-DRB1, -DRB3, -DRB4, -DRB5, -DQB1, -DQA1, -DPB1, or -DPA1), each		Review in panels	Review in panels	Review in panels
81383	HLA Class II typing, high resolution (ie, alleles or allele groups); 1 allele or allele group (eg, HLA-DQB1*06:02P), each		Review in panels	Review in panels	Review in panels
81400	Molecular pathology procedure, Level 1 (eg, identification of single germline variant [eg, SNP] by techniques such as restriction enzyme digestion or melt curve analysis)		eC PA	eC PA	eC PA
81401	MOLECULAR PATHOLOGY PROCEDURE LEVEL 2		eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81402	MOLECULAR PATHOLOGY PROCEDURE LEVEL 3		eC PA	eC PA	eC PA
81403	MOLECULAR PATHOLOGY PROCEDURE LEVEL 4		eC PA	eC PA	eC PA
81404	MOLECULAR PATHOLOGY PROCEDURE LEVEL 5		eC PA	eC PA	eC PA
81405	MOLECULAR PATHOLOGY PROCEDURE LEVEL 6		eC PA	eC PA	eC PA
81406	MOLECULAR PATHOLOGY PROCEDURE LEVEL 7		eC PA	eC PA	eC PA
81407	MOLECULAR PATHOLOGY PROCEDURE LEVEL 8		eC PA	eC PA	eC PA
81408	Molecular pathology procedure, Level 9 (eg, analysis of > 50 exons in a single gene by DNA sequence analysis)		eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81410	Aortic dysfunction or dilation (eg, Marfan syndrome, Loeys Dietz syndrome, Ehler Danlos syndrome type IV, arterial tortuosity syndrome); genomic sequence analysis panel, must include sequencing of at least 9 genes, including FBN1, TGFBR1, TGFBR2, COL3A1, MYH11, ACTA2, SLC2A10, SMAD3, and MYLK		eC PA	eC PA	eC PA
81411	Aortic dysfunction or dilation (eg, Marfan syndrome, Loeys Dietz syndrome, Ehler Danlos syndrome type IV, arterial tortuosity syndrome); duplication/deletion analysis panel, must include analyses for TGFBR1, TGFBR2, MYH11, and COL3A1		eC PA	eC PA	eC PA
81412	Ashkenazi Jewish associated disorders (eg, Bloom syndrome, Canavan disease, cystic fibrosis, familial dysautonomia, Fanconi anemia group C, Gaucher disease, Tay-Sachs disease), genomic sequence analysis panel, must include sequencing of at least 9 genes, including ASPA, BLM, CFTR, FANCC, GBA, HEXA, IKBKAP, MCOLN1, and SMPD1		eC PA	eC PA	eC PA
81413	Cardiac ion channelopathies (eg, Brugada syndrome, long QT syndrome, short QT syndrome, catecholaminergic polymorphic ventricular tachycardia); genomic sequence analysis panel, must include sequencing of at least 10 genes, including ANK2, CASQ2, CAV3, KCNE1, KCNE2, KCNH2, KCNJ2, KCNQ1, RYR2, and SCN5A		eC PA	eC PA	eC PA
81414	Cardiac ion channelopathies (eg, Brugada syndrome, long QT syndrome, short QT syndrome, catecholaminergic polymorphic ventricular tachycardia); duplication/deletion gene analysis panel, must include analysis of at least 2 genes, including KCNH2 and KCNQ1		eC PA	eC PA	eC PA
81415	Exome (eg, unexplained constitutional or heritable disorder or syndrome); sequence analysis		eC PA	eC PA	eC PA
81416 +	Exome (eg, unexplained constitutional or heritable disorder or syndrome); sequence analysis, each comparator exome (eg, parents, siblings) (List separately in addition to code for primary procedure)		eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81417	Exome (eg, unexplained constitutional or heritable disorder or syndrome); re-evaluation of previously obtained exome sequence (eg, updated knowledge or unrelated condition/syndrome)		eC PA	eC PA	eC PA
81418	Drug metabolism (eg, pharmacogenomics) genomic sequence analysis panel, must include testing of at least 6 genes, including CYP2C19, CYP2D6, and CYP2D6 duplication/deletion analysis		eC PA	eC PA	eC PA
81419	Epilepsy genomic sequence analysis panel, must include analyses for ALDH7A1, CACNA1A, CDKL5, CHD2, GABRG2, GRIN2A, KCNQ2, MECP2, PCDH19, POLG, PRRT2, SCN1A, SCN1B, SCN2A, SCN8A, SLC2A1, SLC9A6, STXBP1, SYNGAP1, TCF4, TPP1, TSC1, TSC2, and ZEB2		Review in panels	Review in panels	Review in panels
81420	Fetal chromosomal aneuploidy (eg, trisomy 21, monosomy X) genomic sequence analysis panel, circulating cell-free fetal DNA in maternal blood, must include analysis of chromosomes 13, 18, and 21		No PA required	No PA required	No PA required
81422	Fetal chromosomal microdeletion(s) genomic sequence analysis (eg, DiGeorge syndrome, Cri-du-chat syndrome), circulating cell-free fetal DNA in maternal blood		eC PA	eC PA	eC PA
81425	Genome (eg, unexplained constitutional or heritable disorder or syndrome); sequence analysis	*see also 81415*	eC PA	eC PA	eC PA
81426+	Genome (eg, unexplained constitutional or heritable disorder or syndrome); sequence analysis, each comparator genome (eg, parents, siblings) (List separately in addition to code for primary procedure)		eC PA	eC PA	eC PA
81427	Genome (eg, unexplained constitutional or heritable disorder or syndrome); re-evaluation of previously obtained genome sequence (eg, updated knowledge or unrelated condition/syndrome)		eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81430	Hearing loss (eg, nonsyndromic hearing loss, Usher syndrome, Pendred syndrome); genomic sequence analysis panel, must include sequencing of at least 60 genes, including CDH23, CLRN1, GJB2, GPR98, MTRNR1, MYO7A, MYO15A, PCDH15, OTOF, SLC26A4, TMC1, TMPRSS3, USH1C, USH1G, USH2A, and WFS1	**OtoGenome™** (Partner's Personalized Medicine)	eC PA	eC PA	eC PA
81431	Hearing loss (eg, nonsyndromic hearing loss, Usher syndrome, Pendred syndrome); duplication/deletion analysis panel, must include copy number analyses for STRC and DFNB1 deletions in GJB2 and GJB6 genes	**OtoGenome™** (Partner's Personalized Medicine)	eC PA	eC PA	eC PA
81432	Hereditary breast cancer-related disorders (eg, hereditary breast cancer, hereditary ovarian cancer, hereditary endometrial cancer, hereditary pancreatic cancer, hereditary prostate cancer); genomic sequence analysis panel, 5 or more genes, interrogation for sequence variants and copy number variants		eC PA	eC PA	eC PA
81434	Hereditary retinal disorders (eg, retinitis pigmentosa, Leber congenital amaurosis, cone-rod dystrophy), genomic sequence analysis panel, must include sequencing of at least 15 genes, including ABCA4, CNGA1, CRB1, EYS, PDE6A, PDE6B, PRPF31, PRPH2, RDH12, RHO, RP1, RP2, RPE65, RPGR, and USH2A		eC PA	eC PA	eC PA
81435	Hereditary colon cancer disorders (eg, Lynch syndrome, PTEN hamartoma syndrome, Cowden syndrome, familial adenomatosis polyposis); genomic sequence analysis panel, 5 or more genes, interrogation for sequence variants and copy number variants		eC PA	eC PA	eC PA
81437	Hereditary neuroendocrine tumor disorders (eg, medullary thyroid carcinoma, parathyroid carcinoma, malignant pheochromocytoma or paraganglioma); genomic sequence analysis panel, 5 or more genes, interrogation for sequence variants and copy number variants		eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81439	Inherited cardiomyopathy (eg, hypertrophic cardiomyopathy, dilated cardiomyopathy, arrhythmogenic right ventricular cardiomyopathy) genomic sequence analysis panel, must include sequencing of at least 5 genes, including DSG2, MYBPC3, MYH7, PKP2, and TTN		eC PA	eC PA	eC PA
81440	Nuclear encoded mitochondrial genes (eg, neurologic or myopathic phenotypes), genomic sequence panel, must include analysis of at least 100 genes, including BCS1L, C10orf2, COQ2, COX10, DGUOK, MPV17, OPA1, PDSS2, POLG, POLG2, RRM2B, SCO1, SCO2, SLC25A4, SUCLA2, SUCLG1, TAZ, TK2, and TYMP		eC PA	eC PA	eC PA
81441	Inherited bone marrow failure syndromes (IBMFS) (eg, Fanconi anemia, dyskeratosis congenita, Diamond-Blackfan anemia, Shwachman-Diamond syndrome, GATA2 deficiency syndrome, congenital amegakaryocytic thrombocytopenia) sequence analysis panel, must include sequencing of at least 30 genes, including BRCA2, BRIP1, DKC1, FANCA, FANCB, FANCC, FANCD2, FANCE, FANCF, FANCG, FANCI, FANCL, GATA1, GATA2, MPL, NHP2, NOP10, PALB2, RAD51C, RPL11, RPL35A, RPL5, RPS10, RPS19, RPS24, RPS26, RPS7, SBDS, TERT, and TINF2		eC PA	eC PA	eC PA
81442	Noonan spectrum disorders (eg, Noonan syndrome, cardio-facio-cutaneous syndrome, Costello syndrome, LEOPARD syndrome, Noonan-like syndrome), genomic sequence analysis panel, must include sequencing of at least 12 genes, including BRAF, CBL, HRAS, KRAS, MAP2K1, MAP2K2, NRAS, PTPN11, RAF1, RIT1, SHOC2, and SOS1		eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81443	Genetic testing for severe inherited conditions (eg, cystic fibrosis, Ashkenazi Jewish-associated disorders [eg, Bloom syndrome, Canavan disease, Fanconi anemia type C, mucolipidosis type VI, Gaucher disease, Tay-Sachs disease], beta hemoglobinopathies, phenylketonuria, galactosemia), genomic sequence analysis panel, must include sequencing of at least 15 genes (eg, ACADM, ARSA, ASPA, ATP7B, BCKDHA, BCKDHB, BLM, CFTR, DHCR7, FANCC, G6PC, GAA, GALT, GBA, GBE1, HBB, HEXA, IKBKAP, MCOLN1, PAH)		eC PA	eC PA	eC PA
81445	Solid organ neoplasm, genomic sequence analysis panel, 5-50 genes, interrogation for sequence variants and copy number variants or rearrangements, if performed; DNA analysis or combined DNA and RNA analysis		eC PA	eC PA	eC PA
81448	Hereditary peripheral neuropathies (eg, Charcot-Marie-Tooth, spastic paraplegia), genomic sequence analysis panel, must include sequencing of at least 5 peripheral neuropathy-related genes (eg, BSCL2, GJB1, MFN2, MPZ, REEP1, SPAST, SPG11, SPTLC1)	e.g. **CMT Advanced Evaluation** (Athena Diagnostics)	eC PA	eC PA	eC PA
81449	Solid organ neoplasm, genomic sequence analysis panel, 5-50 genes, interrogation for sequence variants and copy number variants or rearrangements, if performed; RNA analysis		eC PA	eC PA	eC PA
81450	Hematolymphoid neoplasm or disorder, genomic sequence analysis panel, 5-50 genes, interrogation for sequence variants, and copy number variants or rearrangements, or isoform expression or mRNA expression levels, if performed; DNA analysis or combined DNA and RNA analysis	e.g. **FoundationOne HEME** (Foundation Medicine)	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81451	Hematolymphoid neoplasm or disorder, genomic sequence analysis panel, 5-50 genes, interrogation for sequence variants, and copy number variants or rearrangements, or isoform expression or mRNA expression levels, if performed; RNA analysis		eC PA	eC PA	eC PA
81455	Solid organ or hematolymphoid neoplasm or disorder, 51 or greater genes, genomic sequence analysis panel, interrogation for sequence variants and copy number variants or rearrangements, or isoform expression or mRNA expression levels, if performed; DNA analysis or combined DNA and RNA analysis		eC PA	eC PA	eC PA
81456	Solid organ or hematolymphoid neoplasm or disorder, 51 or greater genes, genomic sequence analysis panel, interrogation for sequence variants and copy number variants or rearrangements, or isoform expression or mRNA expression levels, if performed; RNA analysis		eC PA	eC PA	eC PA
81457	Solid organ neoplasm, genomic sequence analysis panel, interrogation for sequence variants; DNA analysis, microsatellite instability		eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81458	Solid organ neoplasm, genomic sequence analysis panel, interrogation for sequence variants; DNA analysis, copy number variants and microsatellite instability		eC PA	eC PA	eC PA
81459	Solid organ neoplasm, genomic sequence analysis panel, interrogation for sequence variants; DNA analysis or combined DNA and RNA analysis, copy number variants, microsatellite instability, tumor mutation burden, and rearrangements		eC PA	eC PA	eC PA
81460	Whole mitochondrial genome (eg, Leigh syndrome, mitochondrial encephalomyopathy, lactic acidosis, and stroke-like episodes [MELAS], myoclonic epilepsy with ragged-red fibers [MERFF], neuropathy, ataxia, and retinitis pigmentosa [NARP], Leber hereditary optic neuropathy [LHON]), genomic sequence, must include sequence analysis of entire mitochondrial genome with heteroplasmy detection		eC PA	eC PA	eC PA
81462	Solid organ neoplasm, genomic sequence analysis panel, cell-free nucleic acid (eg, plasma), interrogation for sequence variants; DNA analysis or combined DNA and RNA analysis, copy number variants and rearrangements		eC PA	eC PA	eC PA
81463	Solid organ neoplasm, genomic sequence analysis panel, cell-free nucleic acid (eg, plasma), interrogation for sequence variants; DNA analysis, copy number variants, and microsatellite instability		eC PA	eC PA	eC PA
81464	Solid organ neoplasm, genomic sequence analysis panel, cell-free nucleic acid (eg, plasma), interrogation for sequence variants; DNA analysis or combined DNA and RNA analysis, copy number variants, microsatellite instability, tumor mutation burden, and rearrangements		eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81465	Whole mitochondrial genome large deletion analysis panel (eg, Kearns-Sayre syndrome, chronic progressive external ophthalmoplegia), including heteroplasmy detection, if performed		eC PA	eC PA	eC PA
81470	X-linked intellectual disability (XLID) (eg, syndromic and non-syndromic XLID); genomic sequence analysis panel, must include sequencing of at least 60 genes, including ARX, ATRX, CDKL5, FGD1, FMR1, HUWE1, IL1RAPL, KDM5C, L1CAM, MECP2, MED12, MID1, OCRL, RPS6KA3, and SLC16A2		eC PA	eC PA	eC PA
81471	X-linked intellectual disability (XLID) (eg, syndromic and non-syndromic XLID); duplication/deletion gene analysis, must include analysis of at least 60 genes, including ARX, ATRX, CDKL5, FGD1, FMR1, HUWE1, IL1RAPL, KDM5C, L1CAM, MECP2, MED12, MID1, OCRL, RPS6KA3, and SLC16A2		eC PA	eC PA	eC PA
81479	Unlisted molecular pathology procedure	*Explanatory notes identifying specific test must accompany claim*	eC PA	eC PA	eC PA
81490	Autoimmune (rheumatoid arthritis), analysis of 12 biomarkers using immunoassays, utilizing serum, prognostic algorithm reported as a disease activity score	**Vectra®DA** (Vectrada)	eC PA	eC PA	eC PA
81493	Coronary artery disease, mRNA, gene expression profiling by real-time RT-PCR of 23 genes, utilizing whole peripheral blood, algorithm reported as a risk score	**Corus® CAD, (CardioDx) * for Medicare only.**	eC PA	eC PA	eC PA
81500	Oncology (ovarian), biochemical assays of two proteins (CA-125 and HE4), utilizing serum, with menopausal status, algorithm reported as a risk score	**ROMA** (Fujirebio)	eC PA	eC PA	eC PA
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	**OVA1 (**ASPiRA - a Vermillion Co.)	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81504	Oncology (tissue of origin), microarray gene expression profiling of > 2000 genes, utilizing formalin-fixed paraffin-embedded tissue, algorithm reported as tissue similarity score	**Pathwork Tissue of Origin** (ResponseDx) *pka* Tissue of Origin	eC PA	eC PA	eC PA
81506	Endocrinology (type 2 diabetes), biochemical assays of seven analytes (glucose, HbA1c, insulin, hs-CRP, adiponectin, ferritin, interleukin 2-receptor alpha), utilizing serum or plasma, algorithm reporting a risk score	**PreDx™ Diabetes Risk Score** (Tethys Bioscience)	Not Covered	Not Covered	Not Covered
81507	Fetal aneuploidy (trisomy 21, 18, and 13) DNA sequence analysis of selected regions using maternal plasma, algorithm reported as a risk score for each trisomy	**Harmony™ Prenatal test** (Ariosa Diagnostics) **MaterniT21™ PLUS** (Sequenom)	No PA Required	No PA required	No PA required
81508	Fetal congenital abnormalities, biochemical assays of two proteins (PAPP-A, hCG [any form]), utilizing maternal serum, algorithm reported as a risk score		Review in panels	Review in panels	Review in panels
81509	Fetal congenital abnormalities, biochemical assays of three proteins (PAPP-A, hCG [any form], DIA), utilizing maternal serum, algorithm reported as a risk score		Review in panels	Review in panels	Review in panels
81510	Fetal congenital abnormalities, biochemical assays of three analytes (AFP, uE3, hCG [any form]), utilizing maternal serum, algorithm reported as a risk score		Review in panels	Review in panels	Review in panels
81511	Fetal congenital abnormalities, biochemical assays of four analytes (AFP, uE3, hCG [any form], DIA) utilizing maternal serum, algorithm reported as a risk score (may include additional results from previous biochemical testing)		Review in panels	Review in panels	Review in panels
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		Review in panels	Review in panels	Review in panels

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81518	Oncology (breast), mRNA, gene expression profiling by real-time RT-PCR of 11 genes (7 content and 4 housekeeping), utilizing formalin-fixed paraffin-embedded tissue, algorithms reported as percentage risk for metastatic recurrence and likelihood of benefit from extended endocrine therapy	**Breast Cancer Index** (bioTheranostics)	eC PA	eC PA	eC PA
81519	Oncology (breast), mRNA, gene expression profiling by real-time RT-PCR of 21 genes, utilizing formalin-fixed paraffin embedded tissue, algorithm reported as recurrence score	**OncotypeDx® Breast Cancer Assay (**Genomic Health)	OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
81520	Oncology (breast), mRNA gene expression profiling by hybrid capture of 58 genes (50 content and 8 housekeeping), utilizing formalin-fixed paraffin-embedded tissue, algorithm reported as a recurrence risk score	**Prosigna Breast Cancer Assay** (NanoString Technologies, Inc)	eC PA	eC PA	eC PA
81521	Oncology (breast), mRNA, microarray gene expression profiling of 70 content genes and 465 housekeeping genes, utilizing fresh frozen or formalin-fixed paraffin-embedded tissue, algorithm reported as index related to risk of distant metastasis	**MammaPrint® Cancer Assay** (Agendia);	eC PA	eC PA	eC PA
81522	Oncology (breast), mRNA, gene expression profiling by RT-PCR of 12 genes (8 content and 4 housekeeping), utilizing formalin-fixed paraffin-embedded tissue, algorithm reported as recurrence risk score	**EndoPredict**	eC PA	eC PA	eC PA
81523	Oncology (breast), mRNA, next-generation sequencing gene expression profiling of 70 content genes and 31 housekeeping genes, utilizing formalin-fixed paraffin-embedded tissue, algorithm reported as index related to risk to distant metastasis	**MammaPrint (Agendia Inc)**	eC PA	eC PA	eC PA
81525	Oncology (colon), mRNA, gene expression profiling by real-time RT-PCR of 12 genes (7 content and 5 housekeeping), utilizing formalin-fixed paraffin-embedded tissue, algorithm reported as a recurrence score	**OncotypeDx® Colon Cancer Assay** (Genomic Health)	eC PA	Not Covered	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81528	Oncology (colorectal) screening, quantitative real-time target and signal amplification of 10 DNA markers (KRAS mutations, promoter methylation of NDRG4 and BMP3) and fecal hemoglobin, utilizing stool, algorithm reported as a positive or negative result	**Cologuard™** Exact Science	OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
81529	Oncology (cutaneous melanoma), mRNA, gene expression profiling by real-time RT-PCR of 31 genes (28 content and 3 housekeeping), utilizing formalin-fixed paraffin-embedded tissue, algorithm reported as recurrence risk, including likelihood of sentinel lymph node metastasis		eC PA	eC PA	eC PA
81535	Oncology (gynecologic), live tumor cell culture and chemotherapeutic response by DAPI stain and morphology, predictive algorithm reported as a drug response score; first single drug or drug combination	**ChemoFX®** (Helomics)	eC PA	eC PA	eC PA
81536	Oncology (gynecologic), live tumor cell culture and chemotherapeutic response by DAPI stain and morphology, predictive algorithm reported as a drug response score; each additional single drug or drug combination (List separately in addition to code for primary procedure)		eC PA	eC PA	eC PA
81538	Oncology (lung), mass spectrometric 8-protein signature, including amyloid A, utilizing serum, prognostic and predictive algorithm reported as good versus poor overall survival	**VeriStrat** (Biodesix)	eC PA	eC PA	eC PA
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	**4Kscore test** (OPKO marketed by BioReference Lab)	eC PA	eC PA	eC PA
81540	Oncology (tumor of unknown origin), mRNA, gene expression profiling by real-time RT-PCR of 92 genes (87 content and 5 housekeeping) to classify tumor into main cancer type and subtype, utilizing formalin-fixed paraffin-embedded tissue, algorithm reported as a probability of a predicted main cancer type and subtype	**CancerTYPE ID** aka **CTID** (BioTheranostics)	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
81541	Oncology (prostate), mRNA gene expression profiling by real-time RT-PCR of 46 genes (31 content and 15 housekeeping), utilizing formalin-fixed paraffin-embedded tissue, algorithm reported as a disease-specific mortality risk score	**Prolaris®** (Myriad Genetic Laboratories, Inc);	eC PA	eC PA	eC PA
81542	Oncology (prostate), mRNA, microarray gene expression profiling of 22 content genes, utilizing formalin-fixed paraffin-embedded tissue, algorithm reported as metastasis risk score	**Decipher (GenomeDx Biosciences)**	eC PA	Not Covered	eC PA
81546	Oncology (thyroid), mRNA, gene expression analysis of 10,196 genes, utilizing fine needle aspirate, algorithm reported as a categorical result (eg, benign or suspicious)		eC PA	eC PA	eC PA
81551	Oncology (prostate), promoter methylation profiling by real-time PCR of 3 genes (GSTP1, APC, RASSF1), utilizing formalin-fixed paraffin-embedded tissue, algorithm reported as a likelihood of prostate cancer detection on repeat biopsy	**ConfirmMDx® for Prostate Cancer** (MDxHealth, Inc);	eC PA	eC PA	eC PA
81552	Oncology (uveal melanoma), mRNA, gene expression profiling by real-time RT-PCR of 15 genes (12 content and 3 housekeeping), utilizing fine needle aspirate or formalin-fixed paraffin-embedded tissue, algorithm reported as risk of metastasis		eC PA	eC PA	eC PA
81554	Pulmonary disease (idiopathic pulmonary fibrosis [IPF]), mRNA, gene expression analysis of 190 genes, utilizing transbronchial biopsies, diagnostic algorithm reported as categorical result (eg, positive or negative for high probability of usual interstitial pneumonia [UIP])		eC PA	eC PA	eC PA
81558	Transplantation medicine (allograft rejection, kidney), mRNA, gene expression profiling by quantitative polymerase chain reaction (qPCR) of 139 genes, utilizing whole blood, algorithm reported as a binary categorization as transplant excellence, which indicates immune		eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
	quiescence, or not transplant excellence, indicating subclinical rejection				
81595	Cardiology (heart transplant), mRNA, gene expression profiling by real-time quantitative PCR of 20 genes (11 content and 9 housekeeping), utilizing subfraction of peripheral blood, algorithm reported as a rejection risk score	**AlloMap®** (CareDx)	eC PA	eC PA	eC PA
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	**Fibrotest/Fibrosure** (Lab Corp, Quest)	eC PA	eC PA	eC PA
81599	Unlisted multianalyte assay with algorithmic analysis	*Explanatory notes identifying specific test must accompany claim*	eC PA	eC PA	eC PA
84999	Unlisted chemistry procedure	*Explanatory notes identifying specific test must accompany claim*	eC PA	eC PA	eC PA
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)	**NASH FibroSURE™** (LabCorp)	Not Covered	Not Covered	Not Covered
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)	**NASH FibroSURE™** (LabCorp, Quest)	Not Covered	Not Covered	Not Covered
0004M	Scoliosis, DNA analysis of 53 single nucleotide polymorphisms (SNPs), using saliva, prognostic algorithm reported as a risk score	**ScoliScore™** (Transgenomic)	Not Covered	Not Covered	Not Covered

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0006M	Oncology (hepatic), mRNA expression levels of 161 genes, utilizing fresh hepatocellular carcinoma tumor tissue, with alpha-fetoprotein level, algorithm reported as a risk classifier	**HeproDX™**, GoPath Laboratories, LLC (*removed from market*)	Not Covered	Not Covered	Not Covered
0007M	Oncology (gastrointestinal neuroendocrine tumors), real-time PCR expression analysis of 51 genes, utilizing whole peripheral blood, algorithm reported as a nomogram of tumor disease index	**NETest** (Wren Laboroatories)	Not Covered	Not Covered	Not Covered
0011M	Oncology, prostate cancer, mRNA expression assay of 12 genes (10 content and 2 housekeeping), RT-PCR test utilizing blood plasma and/or urine, algorithms to predict high-grade prostate cancer risk	**NeoLAB Prostate Liquid Biopsy,** (NeoGenomics Laboratories)	Not Covered	Not Covered	Not Covered
0012M	Oncology (urothelial), mRNA, gene expression profiling by real-time quantitative PCR of five genes (MDK, HOXA13, CDC2 [CDK1], IGFBP5, and CXCR2), utilizing urine, algorithm reported as a risk score for having urothelial carcinoma	**CxBladder Detect, (**Pacific Edge Diagnostics USA, Ltd.)	Not Covered	Not Covered	Not Covered
0013M	Oncology (urothelial), mRNA, gene expression profiling by real-time quantitative PCR of five genes (MDK, HOXA13, CDC2 [CDK1], IGFBP5, and CXCR2), utilizing urine, algorithm reported as a risk score for having recurrent urothelial carcinoma	**CxBladder Monitor**, (Pacific Edge Diagnostics USA, Ltd.)	Not Covered	Not Covered	Not Covered
0020M	Oncology (central nervous system), analysis of 30000 DNA methylation loci by methylation array, utilizing DNA extracted from tumor tissue, diagnostic algorithm reported as probability of matching a reference tumor subclass	**Epignostix CNS Tumor Methylation Classifier, Heidelberg Epignostix GmbH**	eC PA	eC PA	eC PA
0001U	Red blood cell antigen typing, DNA, human erythrocyte antigen gene analysis of 35 antigens from 11 blood groups, utilizing whole blood, common RBC alleles reported	**PreciseType™ HEATest** (Immucor, Inc.)	eC PA	eC PA	eC PA
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	**Overa** - OVA1 Next Generation, (Aspira Labs, Inc., Vermillion, Inc.)	OOS for eC- No PA required	Not Covered	OOS for eC- No PA required

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0005U	Oncology (prostate) gene expression profile by real-time RT-PCR of 3 genes (ERG, PCA3, and SPDEF), urine, algorithm reported as risk score	**ExosomeDx® Prostate (IntelliScore),** Exosome Diagnostics, Inc.	Not Covered	Not Covered	Not Covered
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, predictive, reported as positive or negative for resistance to clarithromycin , fluoroquinolones, metronidazole, amoxicillin, tetracycline and rifabutin	**AmHPR Helicobacter Pylori Antibiotic Resistance Next Generation Sequencing Panel** (American Molecular Laboratories, Inc.)	Not Covered	Not Covered	Not Covered
0009U	Oncology (breast cancer), ERBB2 (HER2) copy number by FISH, tumor cells from formalin fixed paraffin embedded tissue isolated using image-based dielectrophoresis (DEP) sorting, reported as ERBB2 gene amplified or non-amplified	**DEPArray™ HER2** (PacificDx)	Not Covered	Not Covered	Not Covered
0010U	Infectious disease (bacterial), strain typing by whole genome sequencing, phylogenetic-based report of strain relatedness, per submitted isolate	**Bacterial Typing by Whole Genome Sequencing** (Mayo Clinic)	Not Covered	Not Covered	Not Covered
0016U	Oncology (hematolymphoid neoplasia), RNA, BCR/ABL1 major and minor breakpoint fusion transcripts, quantitative PCR amplification, blood or bone marrow, report of fusion not detected or detected with quantitation	**BCR-ABL1 major and minor breakpoint fusion transcripts,** (University of Iowa, Department of Pathology) (Asuragen)	OOS for eC - Not Covered	OOS for eC - Not Covered	OOS for eC - Not Covered
0017U	Oncology (hematolymphoid neoplasia), JAK2 mutation, DNA, PCR amplification of exons 12-14 and sequence analysis, blood or bone marrow, report of JAK2 mutation not detected or detected	**JAK2 Mutation** University of Iowa, Department of Pathology)	OOS for eC - Not Covered	OOS for eC - Not Covered	OOS for eC - Not Covered
0018U	Oncology (thyroid), microRNA profiling by RT-PCR of 10 microRNA sequences, utilizing fine needle aspirate, algorithm reported as a positive or negative result for moderate to high risk of malignancy	**ThyraMIR** (Interpace Diagnostics).	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0019U	Oncology, RNA, gene expression by whole transcriptome sequencing, formalin-fixed paraffin embedded tissue or fresh frozen tissue, predictive algorithm reported as potential targets for therapeutic agents	**OncoTarget/OncoTreat** (Columbia University Department of Pathology and Cell Biology, Darwin Health)	Not Covered	Not Covered	Not Covered
0023U	U Oncology (acute myelogenous leukemia), DNA, genotyping of internal tandem duplication, p.D835, p.I836, using mononuclear cells, reported as detection or nondetection of FLT3 mutation and indication for or against the use of midostaurin	**LeukoStrat® CDx FLT3 Mutation Assay** (LabPMM LLC, an Invivoscribe Technologies, Inc. company)	OOS for eC - Not Covered	OOS for eC - Not Covered	OOS for eC - Not Covered
0026U	Oncology (thyroid), DNA and mRNA of 112 genes, next-generation sequencing, fine needle aspirate of thyroid nodule, algorithmic analysis reported as a categorical result ("Positive, high probability of malignancy" or "Negative, low probability of malignancy")	**Thyroseq Genomic Classifier** (CBLPath, Inc. University of Pittsburgh Medical Center)	eC PA	eC PA	eC PA
0027U	JAK2 (Janus kinase 2) (eg, myeloproliferative disorder) gene analysis, targeted sequence analysis exons 12-15	**JAK2 Exons 12 to 15 Sequencing** (Mayo Clinic)	OOS for eC- No PA required	OOS for eC - Not Covered	OOS for eC- No PA required
0029U	Drug metabolism (adverse drug reactions and drug response), targeted sequence analysis (ie, CYP1A2, CYP2C19, CYP2C9, CYP2D6, CYP3A4, CYP3A5, CYP4F2, SLCO1B1, VKORC1 and rs12777823)	**Focused Pharmacogenomics Panel** (Mayo Clinic)	Not Covered	Not Covered	Not Covered
0030U	Drug metabolism (warfarin drug response), targeted sequence analysis (ie, CYP2C9, CYP4F2, VKORC1, rs12777823)	**Warfarin Response Genotype** (Mayo Clinic)	Not Covered	Not Covered	Not Covered
0031U	CYP1A2 (cytochrome P450 family 1, subfamily A, member 2)(eg, drug metabolism) gene analysis, common variants (ie, *1F, *1K, *6, *7)	**Cytochrome P450 1A2 Genotype** (Mayo Clinic)	Not Covered	Not Covered	Not Covered
0032U	COMT (catechol-O-methyltransferase)(drug metabolism) gene analysis, c.472G>A (rs4680) variant	**Catechol-O-Methyltransferase (COMT) Genotype** (Mayo Clinic)	Not Covered	Not Covered	Not Covered

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0033U	HTR2A (5-hydroxytryptamine receptor 2A), HTR2C (5-hydroxytryptamine receptor 2C) (eg, citalopram metabolism) gene analysis, common variants (ie, HTR2A rs7997012 [c.614-2211T>C], HTR2C rs3813929 [c.-759C>T] and rs1414334 [c.551-3008C>G])	**Serotonin Receptor Genotype (HTR2A and HTR2C)** (Mayo Clinic)	Not Covered	Not Covered	Not Covered
0034U	TPMT (thiopurine S-methyltransferase), NUDT15 (nudix hydroxylase 15)(eg, thiopurine metabolism), gene analysis, common variants (ie, TPMT *2, *3A, *3B, *3C, *4, *5, *6, *8, *12; NUDT15 *3, *4, *5)	**Thiopurine Methyltransferase (TPMT) and Nudix Hydrolase (NUDT15) Genotyping** (Mayo Clinic)	eC PA	eC PA	eC PA
0036U	Exome (ie, somatic mutations), paired formalin-fixed paraffin-embedded tumor tissue and normal specimen, sequence analyses	**EXaCT-1 Whole Exome Testing (**Lab of OncologyMolecular Detection, Weill Cornell Medicine Clinical Genomics Laboratory)	Not Covered	Not Covered	Not Covered
0037U	Targeted genomic sequence analysis, solid organ neoplasm, DNA analysis of 324 genes, interrogation for sequence variants, gene copy number amplifications, gene rearrangements, microsatellite instability and tumor mutational burden	**FoundationOne CDx™ (F1CDx) (**Foundation Medicine, Inc.)	eC PA	eC PA	eC PA
0040U	BCR/ABL1 (t(9;22)) (eg, chronic myelogenous leukemia) translocation analysis, major breakpoint, quantitative	**MRDx BCR-ABL Test** (MolecularMD)	Not Covered	Not Covered	Not Covered
0045U	Oncology (breast ductal carcinoma in situ), mRNA, gene expression profiling by realtime RT-PCR of 12 genes (7 content and 5 housekeeping), utilizing formalin-fixed paraffin-embedded tissue, algorithm reported as recurrence score	**The Oncotype DX® Breast DCIS Score™ Test** (Genomic Health, Inc)	eC PA	eC PA	eC PA
0046U	FLT3 (fms-related tyrosine kinase 3) (eg, acute myeloid leukemia) internal tandem duplication (ITD) variants, quantitative	**FLT3 ITD MRD** (NGS LabPMM LLC, Invivoscribe Technologies, Inc. Company)	Not Covered	Not Covered	Not Covered

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0047U	Oncology (prostate), mRNA, gene expression profiling by real-time RT-PCR of 17 genes (12 content and 5 housekeeping), utilizing formalin-fixed paraffin-embedded tissue, algorithm reported as a risk score	**Oncotype DX Genomic Prostate Score** (Genomic Health, Inc)	eC PA	eC PA	eC PA
0048U	Oncology (solid organ neoplasia), DNA, targeted sequencing of protein-coding exons of 468 cancer-associated genes, including interrogation for somatic mutations and microsatellite instability, matched with normal specimens, utilizing formalin-fixed paraffin-embedded tumor tissue, report of clinically significant mutation(s)	**MSK-IMPACT** (Integrated Mutation Profiling of Actionable Cancer Targets) (Memorial Sloan Kettering Cancer Center)	Not Covered	Not Covered	Not Covered
0049U	NPM1 (nucleophosmin) (eg, acute myeloid leukemia) gene analysis, quantitative	**NPM1 MRD** (NGS LabPMM LLC, an Invivoscribe Technologies, Inc. Company)	Not Covered	Not Covered	Not Covered
0050U	Targeted genomic sequence analysis panel, acute myelogenous leukemia, DNA analysis, 194 genes, interrogation for sequence variants, copy number variants or rearrangements	**MyAML NGS Panel** (LabPMM LLC, an Invivoscribe Technologies, Inc. Company)	Not Covered	Not Covered	Not Covered
0055U	Cardiology (heart transplant), cell-free DNA, PCR assay of 96 DNA target sequences (94 single nucleotide polymorphism targets and two control targets), plasma	**myTAIHEART** (TAI Diagnostics, Inc.)	Not Covered	Not Covered	Not Covered
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	**BBDRisk Dx** (Silbiotech, Inc)	Not Covered	Not Covered	Not Covered

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0069U	Oncology (colorectal), microRNA, RT-PCR expression profiling of miR-31-3p, formalinfixed paraffin-embedded tissue, algorithm reported as an expression score	**miR-31now** (GoPath Laboratories)	Not Covered	Not Covered	Not Covered
0070U	CYP2D6 (cytochrome P450, family 2, subfamily D, polypeptide 6) (eg, drug metabolism) gene analysis, common and select rare variants (ie, *2, *3, *4, *4N, *5, *6, *7, *8, *9, *10, *11, *12, *13, *14A, *14B, *15, *17, *29, *35, *36, *41, *57, *61, *63, *68, *83, *xN)	**CYPD6 Common Variants and Copy Number** (Mayo clinic, Laboratory Developed Test)	eC PA	eC PA	eC PA
0071U	CYP2D6 (cytochrome P450, family 2, subfamily D, polypeptide 6) (eg, drug metabolism) gene analysis, full gene sequence (List separately in addition to code for primary procedure) (Use 0071U in conjunction with 0070U)	**CYP2D6 Full Gene Sequencing** (Mayo clinic, Laboratory Developed Test)	eC PA	eC PA	eC PA
0072U	CYP2D6 (cytochrome P450, family 2, subfamily D, polypeptide 6) (eg, drug metabolism) gene analysis, targeted sequence analysis (ie, CYP2D6-2D7 hybrid gene) (List separately in addition to code for primary procedure) (Use 0072U in conjunction with 0070U)	**CYP2D6-2D7 Hybrid Gene Targeted Sequence Analysis** (Mayo Clinic, Laboratory Developed Test)	eC PA	eC PA	eC PA
0073U	CYP2D6 (cytochrome P450, family 2, subfamily D, polypeptide 6) (eg, drug metabolism) gene analysis, targeted sequence analysis (ie, CYP2D7-2D6 hybrid gene) (List separately in addition to code for primary procedure) (Use 0073U in conjunction with 0070U)	**CYP2D7-2D6 Hybrid Gene Targeted Sequence Analysis** (Mayo Clinic, Laboratory Developed Test)	eC PA	eC PA	eC PA
0074U	CYP2D6 (cytochrome P450, family 2, subfamily D, polypeptide 6) (eg, drug metabolism) gene analysis, targeted sequence analysis (ie, non-duplicated gene when duplication/multiplication is trans) (List separately in addition to code for primary procedure) (Use 0074U in conjunction with 0070U)	**CYP2D6 transduplication/ multiplication non-duplicated gene targeted sequence analysis** (Mayo clinic, Laboratory Developed	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0075U	CYP2D6 (cytochrome P450, family 2, subfamily D, polypeptide 6) (eg, drug metabolism) gene analysis, targeted sequence analysis (ie, 5' gene duplication/multiplication) (List separately in addition to code for primary procedure) (Use 0075U in conjunction with 0070U)	**CYP2D6 5' gene duplication/multiplication targeted sequence analysis** (Mayo clinic, Laboratory Developed Test)	eC PA	eC PA	eC PA
0076U	CYP2D6 (cytochrome P450, family 2, subfamily D, polypeptide 6) (eg, drug metabolism) gene analysis, targeted sequence analysis (ie, 3' gene duplication/multiplication) (List separately in addition to code for primary procedure) (Use 0076U in conjunction with 0070U)	**CYP2D6 3' gene duplication/multiplication targeted sequence analysis** (Mayo Clinic, Laboratory Developed Test)	eC PA	eC PA	eC PA
0078U	Pain management (opioid-use disorder) genotyping panel, 16 common variants (ie, ABCB1, COMT, DAT1, DBH, DOR, DRD1, DRD2, DRD4, GABA, GAL, HTR2A, HTTLPR, MTHFR, MUOR, OPRK1, OPRM1), buccal swab or other germline tissue sample, algorithm reported as positive or negative risk of opioid-use disorder	**INFINITI Neural Response Panel** (PersonalizeDx Labs, AutoGenomics Inc)	Not Covered	Not Covered	Not Covered
0084U	Red blood cell antigen typing, DNA, genotyping of 10 blood groups with phenotype prediction of 37 red blood cell antigens	**BLOODchip® ID CORE XT™,** Grifols Diagnostic Solutions Inc	eC PA	eC PA	eC PA
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	**Accelerate PhenoTest™ BC kit,** Accelerate Diagnostics, Inc	Not Covered	Not Covered	Not Covered
0087U	Cardiology (heart transplant), mRNA gene expression profiling by microarray of 1283 genes, transplant biopsy tissue, allograft rejection and injury algorithm reported as a probability score	**Molecular Microscope® MMDx** — (Heart, Kashi Clinical Laboratories)	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0088U	Transplantation medicine (kidney allograft rejection), microarray gene expression profiling of 1494 genes, utilizing transplant biopsy tissue, algorithm reported as a probability score for rejection	**Molecular Microscope® MDx (**Kidney, Kashi Clinical Laboratories)	Not Covered	Not Covered	Not Covered
0089U	Oncology (melanoma), gene expression profiling by RTqPCR, PRAME and LINC00518, superficial collection using adhesive patch(es)	**Pigmented Lesion Assay (PLA)**, DermTech	OOS for eC- No PA required	Not Covered	OOS for eC- No PA required
0090U	Oncology (cutaneous melanoma), mRNA gene expression profiling by RT-PCR of 23 genes (14 content and 9 housekeeping), utilizing formalin-fixed paraffin-embedded (FFPE) tissue, algorithm reported as a categorical result (ie, benign, indeterminate, malignant)	**myPath® Melanoma**, (Myriad Genetic Laboratories)	Not Covered	Not Covered	Review in Panels
0094U	Genome (eg, unexplained constitutional or heritable disorder or syndrome), rapid sequence analysis	**RCIGM Rapid Whole Genome Sequencing**, Rady Children's Institute for Genomic Medicine (RCIGM)	Not Covered	Not Covered	Not Covered
0101U	Hereditary colon cancer disorders (eg, Lynch syndrome, PTEN hamartoma syndrome, Cowden syndrome, familial adenomatosis polyposis), genomic sequence analysis panel utilizing a combination of NGS, Sanger, MLPA, and array CGH, with MRNA analytics to resolve variants of unknown significance when indicated (15 genes [sequencing and deletion/duplication], EPCAM and GREM1 [deletion/duplication only])	**ColoNext®**, (Ambry Genetics®)	eC PA	eC PA	eC PA
0102U	Hereditary breast cancer-related disorders (eg, hereditary breast cancer, hereditary ovarian cancer, hereditary endometrial cancer), genomic sequence analysis panel utilizing a combination of NGS, Sanger, MLPA, and array CGH, with MRNA analytics to resolve variants of unknown significance when indicated (17 genes [sequencing and deletion/duplication])	**BreastNext®,** Ambry Genetics®	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0103U	Hereditary ovarian cancer (eg, hereditary ovarian cancer, hereditary endometrial cancer), genomic sequence analysis panel utilizing a combination of NGS, Sanger, MLPA, and array CGH, with MRNA analytics to resolve variants of unknown significance when indicated (24 genes sequencing and deletion/duplication], EPCAM [deletion/duplication only])	**OvaNext®**, Ambry Genetics®	eC PA	eC PA	eC PA
0111U	Oncology (colon cancer), targeted KRAS (codons 12, 13, and 61) and NRAS (codons 12, 13, and 61) gene analysis utilizing formalin-fixed paraffin-embedded tissue	**PraxisTM Extended RAS Panel** (Illumina)	eC PA	eC PA	eC PA
0112U	Infectious agent detection and identification, targeted sequence analysis (16S and 18S rRNA genes) with drug-resistance gene	**MicroGenDX qPCR & NGS For Infection** (MicroGenDX)	Not Covered	Not Covered	Covered-No PA required
0113U	Oncology (prostate), measurement of PCA3 and TMPRSS2-ERG in urine and PSA in serum following prostatic massage, by RNA amplification and fluorescence-based detection, algorithm reported as risk score	**MiPS (Mi-Prostate Score)** (MLabs)	Not Covered	Not Covered	Not Covered
0114U	Gastroenterology (Barrett's esophagus), VIM and CCNA1 methylation analysis, esophageal cells, algorithm reported as likelihood for Barrett's esophagus	**EsoGuard™** (Lucid Diagnostics)	Not Covered	Not Covered	Not Covered
0115U	Respiratory infectious agent detection by nucleic acid (DNA and RNA), 18 viral types and subtypes and 2 bacterial targets, amplified probe technique, including multiplex reverse transcription for RNA targets, each analyte reported as detected or not detected	**ePlex Respiratory Pathogen (RP) Panel (**GenMark Diagnostics, Inc)	Not Covered	Not Covered	Not Covered
0118U	Transplantation medicine, quantification of donor-derived cell-free DNA using whole genome next-generation sequencing, plasma, reported as percentage of donor-derived cell-free DNA in the total cell-free DNA	**Viracor TRAC dd-cfDNA** (Viracor Eurofins)	Not Covered	Not Covered	Not Covered

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0120U	Oncology (B-cell lymphoma classification), mRNA, gene expression profiling by fluorescent probe hybridization of 58 genes (45 content and 13 housekeeping genes), formalin-fixed paraffin-embedded tissue, algorithm reported as likelihood for primary mediastinal B-cell lymphoma (PMBCL) and diffuse large B-cell lymphoma (DLBCL) with cell of origin subtyping in the latter	**Lymph3Cx Lymphoma Molecular Subtyping Assay,** (Mayo Clinic, Laboratory Developed Test)	Not Covered	Not Covered	Not Covered
0129U	Hereditary breast cancer–related disorders (eg, hereditary breast cancer, hereditary ovarian cancer, hereditary endometrial cancer), genomic sequence analysis and deletion/duplication analysis panel (ATM, BRCA1, BRCA2, CDH1, CHEK2, PALB2, PTEN, and TP53)	**BRCAplus** (Ambry Genetics)	eC PA	eC PA	eC PA
0130U	Hereditary colon cancer disorders (eg, Lynch syndrome, PTEN hamartoma syndrome, Cowden syndrome, familial adenomatosis polyposis), targeted mRNA sequence analysis panel (APC, CDH1, CHEK2, MLH1, MSH2, MSH6, MUTYH, PMS2, PTEN, and TP53) (List separately in addition to code for primary procedure)	**+RNAinsight™ for ColoNext®,** (Ambry Genetics)	Not Covered	Not Covered	Not Covered
0131U	Hereditary breast cancer–related disorders (eg, hereditary breast cancer, hereditary ovarian cancer, hereditary endometrial cancer), targeted mRNA sequence analysis panel (13 genes) (List separately in addition to code for primary procedure)	**+RNAinsight™ for BreastNext®** (Ambry Genetics)	Not Covered	Not Covered	Not Covered
0132U	Hereditary ovarian cancer–related disorders (eg, hereditary breast cancer, hereditary ovarian cancer, hereditary endometrial cancer), targeted mRNA sequence analysis panel (17 genes) (List separately in addition to code for primary procedure)	**+RNAinsight™ for OvaNext®** (Ambry Genetics)	Not Covered	Not Covered	Not Covered
0133U	Hereditary prostate cancer–related disorders, targeted mRNA sequence analysis panel (11 genes) (List separately in addition to code for primary procedure)	**+RNAinsight™ for ProstateNext®,** (Ambry Genetics)	Not Covered	Not Covered	Not Covered

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0134U	Hereditary pan cancer (eg, hereditary breast and ovarian cancer, hereditary endometrial cancer, hereditary colorectal cancer), targeted mRNA sequence analysis panel (18 genes) (List separately in addition to code for primary procedure)	**+RNAinsight™ for CancerNext®** (Ambry Genetics)	Not Covered	Not Covered	Not Covered
0135U	Hereditary gynecological cancer (eg, hereditary breast and ovarian cancer, hereditary endometrial cancer, hereditary colorectal cancer), targeted mRNA sequence analysis panel (12 genes) (List separately in addition to code for primary procedure)	**+RNAinsight™ for GYNPlus®** (Ambry Genetics)	Not Covered	Not Covered	Not Covered
0136U	ATM (ataxia telangiectasia mutated) (eg, ataxia telangiectasia) mRNA sequence analysis (List separately in addition to code for primary procedure)	**+RNAinsight™ for ATM** (Ambry Genetics)	Not Covered	Not Covered	Not Covered
0137U	PALB2 (partner and localizer of BRCA2) (eg, breast and pancreatic cancer) mRNA sequence analysis (List separately in addition to code for primary procedure)	**+RNAinsight™ for PALB2,** (Ambry Genetics)	Not Covered	Not Covered	Not Covered
0138U	BRCA1 (BRCA1, DNA repair associated), BRCA2 (BRCA2, DNA repair associated) (eg, hereditary breast and ovarian cancer) mRNA sequence analysis (List separately in addition to code for primary procedure)	**+RNAinsight™ for BRCA1/2 (Ambry Genetics)**	Not Covered	Not Covered	Not Covered
0152U	Infectious disease (bacteria, fungi, parasites, and DNA viruses), microbial cell-free DNA, plasma, untargeted next-generation sequencing, report for significant positive pathogens	**Karius® Test, (Karius Inc)**	Not Covered	Not Covered	Not Covered
0153U	Oncology (breast), mRNA, gene expression profiling by next-generation sequencing of 101 genes, utilizing formalin-fixed paraffin-embedded tissue, algorithm reported as a triple negative breast cancer clinical subtype(s) with information on immune cell involvement	**Insight TNBCtype™, (Insight Molecular Labs)**	Out of Scope for eC - Not Covered	Out of Scope for eC - Not Covered	Out of Scope for eC - Not Covered
0154U	FGFR3 (fibroblast growth factor receptor 3) gene analysis (ie, p.R248C [c.742C>T], p.S249C [c.746C>G], p.G370C [c.1108G>T], p.Y373C [c.1118A>G], FGFR3-TACC3v1, and FGFR3-TACC3v3)	**therascreen® FGFR RGQ RTPCR Kit, (QIAGEN)**	OOS for eC- No PA required	Not covered	OOS for eC- No PA required

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0155U	PIK3CA (phosphatidylinositol-4,5-bisphosphate 3-kinase, catalytic subunit alpha) (eg, breast cancer) gene analysis (ie, p.C420R, p.E542K, p.E545A, p.E545D [g.1635G>T only], p.E545G, p.E545K, p.Q546E, p.Q546R, p.H1047L, p.H1047R, p.H1047Y)	**therascreen PIK3CA RGQ PCR Kit, (QIAGEN)**	OOS for eC- No PA required	Not covered	OOS for eC- No PA required
0156U	Copy number (eg, intellectual disability, dysmorphology), sequence analysis	**SMASH™,(New York Genome Center, Marvel Genomics)**	Not covered	Not covered	Not covered
0157U	APC (APC regulator of WNT signaling pathway) (eg, familial adenomatosis polyposis [FAP]) mRNA sequence analysis (List separately in addition to code for primary procedure)	**CustomNext + RNA: APC, (Ambry Genetics)**	Not covered	Not covered	Not covered
0158U	MLH1 (mutL homolog 1) (eg, hereditary non-polyposis colorectal cancer, Lynch syndrome) mRNA sequence analysis (List separately in addition to code for primary procedure)	**CustomNext + RNA: MLH1, (Ambry Genetics®)**	Not Covered	Not Covered	Not Covered
0159U	MSH2 (mutS homolog 2) (eg, hereditary colon cancer, Lynch syndrome) mRNA sequence analysis (List separately in addition to code for primary procedure)	**CustomNext + RNA: MSH2, (Ambry Genetics®)**	Not Covered	Not Covered	Not Covered
0160U	MSH6 (mutS homolog 6) (eg, hereditary colon cancer, Lynch syndrome) mRNA sequence analysis (List separately in addition to code for primary procedure)	**CustomNext + RNA: MSH6, (Ambry Genetics®)**	Not Covered	Not Covered	Not Covered
0161U	PMS2 (PMS1 homolog 2, mismatch repair system component) (eg, hereditary non-polyposis colorectal cancer, Lynch syndrome) mRNA sequence analysis (List separately in addition to code for primary procedure)	**CustomNext + RNA: PMS2, (Ambry Genetics®)**	Not Covered	Not Covered	Not Covered

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0162U	Hereditary colon cancer (Lynch syndrome), targeted mRNA sequence analysis panel (MLH1, MSH2, MSH6, PMS2) (List separately in addition to code for primary procedure)	**CustomNext + RNA: Lynch (MLH1, MSH2, MSH6, PMS2), (Ambry Genetics®)**	Not Covered	Not Covered	Not Covered
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	**BeScreened™-CRC, Beacon Biomedical Inc, Beacon Biomedical Inc**	Not Covered	Not Covered	Not Covered
0169U	NUDT15 (nudix hydrolase 15) and TPMT (thiopurine S-methyltransferase) (eg, drug metabolism) gene analysis, common variants	**NT (NUDT15 and TPMT) genotyping panel, RPRD Diagnostics**	Not Covered	Not Covered	Not Covered
0170U	Neurology (autism spectrum disorder [ASD]), RNA, next-generation sequencing, saliva, algorithmic analysis, and results reported as predictive probability of ASD diagnosis	**Clarifi™, Quadrant Biosciences, Inc, Quadrant Biosciences, Inc**	Not Covered	Not Covered	Not Covered
0171U	Targeted genomic sequence analysis panel, acute myeloid leukemia, myelodysplastic syndrome, and myeloproliferative neoplasms, DNA analysis, 23 genes, interrogation for sequence variants, rearrangements and minimal residual disease, reported as presence/absence	**MyMRD® NGS Panel, Laboratory for Personalized Molecular Medicine (Invivoscribe)**	eC PA	eC PA	eC PA
0172U	Oncology (solid tumor as indicated by the label), somatic mutation analysis of BRCA1 (BRCA1, DNA repair associated), BRCA2 (BRCA2, DNA repair associated) and analysis of homologous recombination deficiency pathways, DNA, formalin-fixed paraffin-embedded tissue, algorithm quantifying tumor genomic instability score	**myChoice® CDx, Myriad Genetics Laboratories, Inc,**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0173U	Psychiatry (ie, depression, anxiety), genomic analysis panel, includes variant analysis of 14 genes	**Psych HealthPGx Panel, RPRD Diagnostics**	Not Covered	Not Covered	Not Covered
0175U	Psychiatry (eg, depression, anxiety), genomic analysis panel, variant analysis of 15 genes	**Genomind® Professional PGx Express™ CORE, Genomind, Inc**	Not Covered	Not Covered	Not Covered
0177U	Oncology (breast cancer), DNA, PIK3CA (phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alpha) gene analysis of 11 gene variants utilizing plasma, reported as PIK3CA gene mutation status	**therascreen® PIK3CA RGQ PCR Kit, QIAGEN GmbH**	Not Covered	Not Covered	Not Covered
0179U	Oncology (non-small cell lung cancer), cell-free DNA, targeted sequence analysis of 23 genes (single nucleotide variations, insertions and deletions, fusions without prior knowledge of partner/breakpoint, copy number variations), with report of significant mutation(s)	**Resolution ctDx Lung™, Resolution Bioscience, Inc**	Not Covered	Not Covered	Not Covered
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	**Navigator ABO Sequencing, Grifols Immunohematology Center**	Not Covered	Not Covered	Not Covered
0181U	Red cell antigen (Colton blood group) genotyping (CO), gene analysis, AQP1 (aquaporin 1 [Colton blood group]) exon 1	**Navigator CO Sequencing, Grifols Immunohematology Center**	Not Covered	Not Covered	Not Covered
0182U	Red cell antigen (Cromer blood group) genotyping (CROM), gene analysis, CD55 (CD55 molecule [Cromer blood group]) exons 1-10	**Navigator CO Sequencing, Grifols Immunohematology Center**	Not Covered	Not Covered	Not Covered

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0183U	Red cell antigen (Diego blood group) genotyping (DI), gene analysis, SLC4A1 (solute carrier family 4 member 1 [Diego blood group]) exon 19	**Navigator CO Sequencing, Grifols Immunohematology Center**	Not Covered	Not Covered	Not Covered
0184U	Red cell antigen (Dombrock blood group) genotyping (DO), gene analysis, ART4 (ADP-ribosyltransferase 4 [Dombrock blood group]) exon 2	**Navigator CO Sequencing, Grifols Immunohematology Center**	Not Covered	Not Covered	Not Covered
0185U	Red cell antigen (H blood group) genotyping (FUT1), gene analysis, FUT1 (fucosyltransferase 1 [H blood group]) exon 4	**Navigator FUT1 Sequencing, Grifols Immunohematology Center**	Not Covered	Not Covered	Not Covered
0186U	Red cell antigen (H blood group) genotyping (FUT2), gene analysis, FUT2 (fucosyltransferase 2) exon 2	**Navigator FUT2 Sequencing, Grifols Immunohematology Center**	Not Covered	Not Covered	Not Covered
0187U	Red cell antigen (Duffy blood group) genotyping (FY), gene analysis, ACKR1 (atypical chemokine receptor 1 [Duffy blood group]) exons 1-2	**Navigator FY Sequencing, Grifols Immunohematology Center**	Not Covered	Not Covered	Not Covered
0188U	Red cell antigen (Gerbich blood group) genotyping (GE), gene analysis, GYPC (glycophorin C [Gerbich blood group]) exons 1-4	**Navigator GE Sequencing, Grifols Immunohematology Center**	Not Covered	Not Covered	Not Covered
0189U	Red cell antigen (MNS blood group) genotyping (GYPA), gene analysis, GYPA (glycophorin A [MNS blood group]) introns 1, 5, exon 2	**Navigator GYPA Sequencing, Grifols Immunohematology Center**	Not Covered	Not Covered	Not Covered

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0190U	Red cell antigen (MNS blood group) genotyping (GYPB), gene analysis, GYPB (glycophorin B [MNS blood group]) introns 1, 5, pseudoexon 3	**Navigator GYPB Sequencing, Grifols Immunohematology Center**	Not Covered	Not Covered	Not Covered
0191U	Red cell antigen (Indian blood group) genotyping (IN), gene analysis, CD44 (CD44 molecule [Indian blood group]) exons 2, 3, 6	**Navigator IN Sequencing, Grifols Immunohematology Center**	Not Covered	Not Covered	Not Covered
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	**Navigator JK Sequencing, Grifols Immunohematology Center**	Not Covered	Not Covered	Not Covered
0193U	Red cell antigen (JR blood group) genotyping (JR), gene analysis, ABCG2 (ATP binding cassette subfamily G member 2 [Junior blood group]) exons 2-26	**Navigator JR Sequencing, Grifols Immunohematology Center**	Not Covered	Not Covered	Not Covered
0194U	Red cell antigen (Kell blood group) genotyping (KEL), gene analysis, KEL (Kell metallo-endopeptidase [Kell blood group]) exon 8	**Navigator KEL Sequencing, Grifols Immunohematology Center**	Not Covered	Not Covered	Not Covered
0195U	KLF1 (Kruppel-like factor 1), targeted sequencing (ie, exon 13)	**Navigator KLF1 Sequencing, Grifols Immunohematology Center**	Not Covered	Not Covered	Not Covered
0196U	Red cell antigen (Lutheran blood group) genotyping (LU), gene analysis, BCAM (basal cell adhesion molecule [Lutheran blood group]) exon 3	**Navigator LU Sequencing, Grifols Immunohematology Center**	Not Covered	Not Covered	Not Covered

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0197U	Red cell antigen (Landsteiner-Wiener blood group) genotyping (LW), gene analysis, ICAM4 (intercellular adhesion molecule 4 [Landsteiner-Wiener blood group]) exon 1	**Navigator LW Sequencing, Grifols Immunohematology Center**	Not Covered	Not Covered	Not Covered
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	**Navigator RHD/CE Sequencing, Grifols Immunohematology Center**	Not Covered	Not Covered	Not Covered
0199U	Red cell antigen (Scianna blood group) genotyping (SC), gene analysis, ERMAP (erythroblast membrane associated protein [Scianna blood group]) exons 4, 12	**Navigator SC Sequencing, Grifols Immunohematology Center**	Not Covered	Not Covered	Not Covered
0200U	Red cell antigen (Kx blood group) genotyping (XK), gene analysis, XK (X-linked Kx blood group) exons 1-3	**Navigator XK Sequencing, Grifols Immunohematology Center**	Not Covered	Not Covered	Not Covered
0201U	Red cell antigen (Yt blood group) genotyping (YT), gene analysis, ACHE (acetylcholinesterase [Cartwright blood group]) exon 2	**Navigator YT Sequencing, Grifols Immunohematology Center**	Not Covered	Not Covered	Not Covered
0203U	Autoimmune (inflammatory bowel disease), mRNA, gene expression profiling by quantitative RT-PCR, 17 genes (15 target and 2 reference genes), whole blood, reported as a continuous risk score and classification of inflammatory bowel disease aggressiveness	**PredictSURE IBDTM Test, KSL Diagnostics, PredictImmune Ltd**	eC PA	eC PA	eC PA
0205U	Ophthalmology (age-related macular degeneration), analysis of 3 gene variants (2 CFH gene, 1 ARMS2 gene), using PCR and MALDI-TOF, buccal swab, reported as positive or negative for neovascular age-related macular-degeneration risk associated with zinc supplements	**Vita Risk®, Arctic Medical Laboratories, Arctic Medical Laboratories**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0209U	Oncology (cutaneous melanoma), mRNA gene expression profiling by RT-PCR of 23 genes (14 content and 9 housekeeping), utilizing formalin-fixed paraffin-embedded (FFPE) tissue, algorithm reported as a categorical result (ie, benign, intermediate, malignant)	**CNGnomeTM, PerkinElmer Genomics, PerkinElmer Genomics**	eC PA	eC PA	eC PA
0211U	Oncology (pan-tumor), DNA and RNA by next-generation sequencing, utilizing formalin-fixed paraffin-embedded tissue, interpretative report for single nucleotide variants, copy number alterations, tumor mutational burden, and microsatellite instability, with therapy association	**MI Cancer SeekTM - NGS Analysis, Caris MPI d/b/a Caris Life Sciences, Caris MPI d/b/a Caris Life Sciences**	eC PA	eC PA	eC PA
0212U	Rare diseases (constitutional/heritable disorders), whole genome and mitochondrial DNA sequence analysis, including small sequence changes, deletions, duplications, short tandem repeat gene expansions, and variants in non-uniquely mappable regions, blood or saliva, identification and categorization of genetic variants, proband	**Genomic Unity® Exome Plus Analysis - Proband, Variantyx Inc,**	Not Covered	Not Covered	Not Covered
0213U	Rare diseases (constitutional/heritable disorders), whole genome and mitochondrial DNA sequence analysis, including small sequence changes, deletions, duplications, short tandem repeat gene expansions, and variants in non-uniquely mappable regions, blood or saliva, identification and categorization of genetic variants, each comparator genome (eg, parent, sibling)	**Genomic Unity® Whole Genome Analysis - Comparator, Variantyx Inc**	Not Covered	Not Covered	Not Covered
0214U	Rare diseases (constitutional/heritable disorders), whole exome and mitochondrial DNA sequence analysis, including small sequence changes, deletions, duplications, short tandem repeat gene expansions, and variants in non-uniquely mappable regions, blood or saliva, identification and categorization of genetic variants, proband	**Genomic Unity® Exome Plus Analysis - Proband, Variantyx Inc,**	eC PA	eC PA	eC PA
0215U	Rare diseases (constitutional/heritable disorders), whole exome and mitochondrial DNA sequence analysis, including small sequence changes, deletions, duplications, short tandem repeat gene expansions, and variants in non-uniquely mappable regions, blood or saliva, identification and categorization of	**Genomic Unity® Exome Plus Analysis - Comparator, Variantyx Inc**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
	genetic variants, each comparator exome (eg, parent, sibling)				
0216U	Neurology (inherited ataxias), genomic DNA sequence analysis of 12 common genes including small sequence changes, deletions, duplications, short tandem repeat gene expansions, and variants in non-uniquely mappable regions, blood or saliva, identification and categorization of genetic variants	**Genomic Unity® Ataxia Repeat Expansion and Sequence Analysis, Variantyx Inc.**	eC PA	eC PA	eC PA
0217U	Neurology (inherited ataxias), genomic DNA sequence analysis of 51 genes including small sequence changes, deletions, duplications, short tandem repeat gene expansions, and variants in non-uniquely mappable regions, blood or saliva, identification and categorization of genetic variants	**Genomic Unity® Comprehensive Ataxia Repeat Expansion and Sequence Analysis, Variantyx Inc.**	eC PA	eC PA	eC PA
0218U	Neurology (muscular dystrophy), DMD gene sequence analysis, including small sequence changes, deletions, duplications, and variants in non-uniquely mappable regions, blood or saliva, identification and characterization of genetic variants	**Genomic Unity® DMD Analysis, Variantyx Inc**	eC PA	eC PA	eC PA
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	**Sentosa® SQ HIV-1 Genotyping Assay, Vela Diagnostics USA, Inc, Vela Operations Singapore Pte Ltd**	Not Covered	Not Covered	Not Covered
0220U	Oncology (breast cancer), image analysis with artificial intelligence assessment of 12 histologic and immunohistochemical features, reported as a recurrence score	**PreciseDxTM Breast Cancer Test, PreciseDx**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
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	**Navigator ABO Blood Group NGS, Grifols Immunohematology Center**	Not Covered	Not Covered	Not Covered
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	**Navigator Rh Blood Group NGS, Grifols Immunohematology Center**	Not Covered	Not Covered	Not Covered
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	**PanGIA Prostate, Genetics Institute of America, Entopsis, LLC**	eC PA	eC PA	eC PA
0229U	BCAT1 (Branched chain amino acid transaminase 1) or IKZF1 (IKAROS family zinc finger 1) (eg, colorectal cancer) promoter methylation analysis	**Colvera®, Colvera**	eC PA	eC PA	eC PA
0230U	AR (androgen receptor) (eg, spinal and bulbar muscular atrophy, Kennedy disease, X chromosome inactivation), full sequence analysis, including small sequence changes in exonic and intronic regions, deletions, duplications, short tandem repeat (STR) expansions, mobile element insertions, and variants in non-uniquely mappable regions	**Genomic Unity® AR Analysis, Variantyx Inc**	Not Covered	Not Covered	Not Covered
0231U	CACNA1A (calcium voltage-gated channel subunit alpha 1A) (eg, spinocerebellar ataxia), full gene analysis, including small sequence changes in exonic and intronic regions, deletions, duplications, short tandem repeat (STR) gene expansions, mobile element insertions, and variants in non-uniquely mappable regions	**Genomic Unity® CACNA1A Analysis, Variantyx Inc.**	Not Covered	Not Covered	Not Covered
0232U	CSTB (cystatin B) (eg, progressive myoclonic epilepsy type 1A, Unverricht-Lundborg disease), full gene analysis, including small sequence changes in exonic and intronic regions, deletions, duplications, short tandem repeat (STR) expansions, mobile element	**Genomic Unity® CSTB Analysis, Variantyx Inc**	Not Covered	Not Covered	Not Covered

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
	insertions, and variants in non-uniquely mappable regions				
0233U	FXN (frataxin) (eg, Friedreich ataxia), gene analysis, including small sequence changes in exonic and intronic regions, deletions, duplications, short tandem repeat (STR) expansions, mobile element insertions, and variants in non-uniquely mappable regions	**Genomic Unity® FXN Analysis, Variantyx Inc.**	Not Covered	Not Covered	Not Covered
0234U	MECP2 (methyl CpG binding protein 2) (eg, Rett syndrome), full gene analysis, including small sequence changes in exonic and intronic regions, deletions, duplications, mobile element insertions, and variants in non-uniquely mappable regions	**Genomic Unity® MECP2 Analysis, Variantyx Inc, Variantyx Inc**	Not Covered	Not covered	OOS for eC- No PA required
0235U	PTEN (phosphatase and tensin homolog) (eg, Cowden syndrome, PTEN hamartoma tumor syndrome), full gene analysis, including small sequence changes in exonic and intronic regions, deletions, duplications, mobile element insertions, and variants in non-uniquely mappable regions	**Genomic Unity® PTEN Analysis, Variantyx Inc, Variantyx Inc**	Not Covered	Not Covered	OOS for eC- No PA required
0236U	SMN1 (survival of motor neuron 1, telomeric) and SMN2 (survival of motor neuron 2, centromeric) (eg, spinal muscular atrophy) full gene analysis, including small sequence changes in exonic and intronic regions, duplications and deletions, and mobile element insertions	**Genomic Unity® SMN1/2 Analysis, Variantyx Inc, Variantyx Inc**	Not Covered	Not Covered	OOS for eC – No PA required
0237U	Cardiac ion channelopathies (eg, Brugada syndrome, long QT syndrome, short QT syndrome, catecholaminergic polymorphic ventricular tachycardia), genomic sequence analysis panel including ANK2, CASQ2, CAV3, KCNE1, KCNE2, KCNH2, KCNJ2, KCNQ1, RYR2, and SCN5A, including small sequence changes in exonic and intronic regions, deletions, duplications, mobile element insertions, and variants in non-uniquely mappable regions	**Genomic Unity® Cardiac Ion Channelopathies Analysis, Variantyx Inc,**	Not Covered	Not Covered	OOS for eC – No PA required

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0238U	Oncology (Lynch syndrome), genomic DNA sequence analysis of MLH1, MSH2, MSH6, PMS2, and EPCAM, including small sequence changes in exonic and intronic regions, deletions, duplications, mobile element insertions, and variants in non-uniquely mappable regions	**Genomic Unity® Lynch Syndrome Analysis, Variantyx Inc, Variantyx**	Not Covered	Not Covered	OOS for eC - No PA required
0239U	Targeted genomic sequence analysis panel, solid organ neoplasm, cell-free DNA, analysis of 311 or more genes, interrogation for sequence variants, including substitutions, insertions, deletions, select rearrangements, and copy number variations	**FoundationOne® Liquid CDx, FOUNDATION MEDICINE, INC,**	eC PA	eC PA	eC PA
0242U	Targeted genomic sequence analysis panel, solid organ neoplasm, cell-free circulating DNA analysis of 55-74 genes, interrogation for sequence variants, gene copy number amplifications, and gene rearrangements	**Guardant360® CDx (Guardant Health Inc)**	eC PA	eC PA	eC PA
0244U	Oncology (solid organ), DNA, comprehensive genomic profiling, 257 genes, interrogation for single-nucleotide variants, insertions/deletions, copy number alterations, gene rearrangements, tumor-mutational burden and microsatellite instability, utilizing formalin-fixed paraffin-embedded tumor tissue	**Oncotype MAP™ PanCancer Tissue Test, (Paradigm Diagnostics, Inc)**	eC PA	eC PA	eC PA
0245U	Oncology (thyroid), mutation analysis of 10 genes and 37 RNA fusions and expression of 4 mRNA markers using next-generation sequencing, fine needle aspirate, report includes associated risk of malignancy expressed as a percentage	**ThyGeNEXT® Thyroid Oncogene Panel (Interpace Diagnostic)**	eC PA	eC PA	eC PA
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	**PrecisionBlood™ (San Diego Blood Bank)**	eC PA	eC PA	eC PA
0250U	Oncology (solid organ neoplasm), targeted genomic sequence DNA analysis of 505 genes, interrogation for somatic alterations (SNVs [single nucleotide variant], small insertions and deletions, one amplification, and four translocations), microsatellite instability and tumor-mutation burden	**PGDx elio (Personal Genome Diagnostics Inc)**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0252U	Fetal aneuploidy short tandem?repeat comparative analysis, fetal DNA from products of conception, reported as normal (euploidy), monosomy, trisomy, or partial deletion/duplications, mosaicism, and segmental aneuploidy	**POC (Products of Conception) (Igenomix)**	eC PA	eC PA	eC PA
0253U	Reproductive medicine (endometrial receptivity analysis), RNA gene expression profile, 238 genes by next-generation sequencing, endometrial tissue, predictive algorithm reported as endometrial window of implantation (eg, pre-receptive, receptive, post-receptive)	**ERA® (Endometrial Receptivity Analysis) (Igenomix)**	eC PA	eC PA	eC PA
0254U	Reproductive medicine (preimplantation genetic assessment), analysis of 24 chromosomes using embryonic DNA genomic sequence analysis for aneuploidy, and a mitochondrial DNA score in euploid embryos, results reported as normal (euploidy), monosomy, trisomy, or partial deletion/duplications, mosaicism, and segmental aneuploidy, per embryo tested	**SMART PGT-A**	eC PA	eC PA	eC PA
0258U	Autoimmune (psoriasis), mRNA, next-generation sequencing, gene expression profiling of 50-100 genes, skin-surface collection using adhesive patch, algorithm reported as likelihood of response to psoriasis biologics	**Mind.Px, Mindera, Mindera Corporation**	eC PA	eC PA	eC PA
0260U	Rare diseases (constitutional/heritable disorders), identification of copy number variations, inversions, insertions, translocations, and other structural variants by optical genome mapping	**Augusta Optical Genome Mapping, Georgia Esoteric and Molecular (GEM) Laboratory, LLC, Bionano Genomics Inc**	eC PA	eC PA	eC PA
0262U	Oncology (solid tumor), gene expression profiling by real-time RT-PCR of 7 gene pathways (ER, AR, PI3K, MAPK, HH, TGFB, Notch), formalin-fixed paraffin-embedded (FFPE), algorithm reported as gene pathway activity score	**OncoSignal 7 Pathway Signal, Protean BioDiagnostics, Philips Electronics Nederland BV**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0265U	Rare constitutional and other heritable disorders, whole genome and mitochondrial DNA sequence analysis, blood, frozen and formalin-fixed paraffin-embedded (FFPE) tissue, saliva, buccal swabs or cell lines, identification of single nucleotide and copy number variants	**Praxis Whole GenomeSequencing, Praxis Genomics LLC**	eC PA	eC PA	eC PA
0266U	Unexplained constitutional or other heritable disorders or syndromes, tissue-specific gene expression by whole-transcriptome and next-generation sequencing, blood, formalin-fixed paraffin-embedded (FFPE) tissue or fresh frozen tissue, reported as presence or absence of splicing or expression changes	**Praxis Transcriptome, Praxis Genomics LLC**	eC PA	eC PA	eC PA
0267U	Rare constitutional and other heritable disorders, identification of copy number variations, inversions, insertions, translocations, and other structural variants by optical genome mapping and whole genome sequencing	**Praxis Combined Whole Genome Sequencing and Optical Genome Mapping, Praxis Genomics LLC**	eC PA	eC PA	eC PA
0268U	Hematology (atypical hemolytic uremic syndrome [aHUS]), genomic sequence analysis of 15 genes, blood, buccal swab, or amniotic fluid	**Versiti™ aHUS Genetic Evaluation, Versiti™ Diagnostic Laboratories**	eC PA	eC PA	eC PA
0269U	Hematology (autosomal dominant congenital thrombocytopenia), genomic sequence analysis of 14 genes, blood, buccal swab, or amniotic fluid	**Versiti™ Autosomal Dominant Thrombocytopenia Panel, Versiti™ Diagnostic Laboratories**	eC PA	eC PA	eC PA
0270U	Hematology (congenital coagulation disorders), genomic sequence analysis of 20 genes, blood, buccal swab, or amniotic fluid	**Versiti™ Coagulation Disorder Panel, Versiti™ Diagnostic Laboratories, Versiti™**	eC PA	eC PA	eC PA
0271U	Hematology (congenital neutropenia), genomic sequence analysis of 23 genes, blood, buccal swab, or amniotic fluid	**Versiti™ Congenital Neutropenia Panel, Versiti™ Diagnostic**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
		Laboratories, Versiti™			
0272U	Hematology (genetic bleeding disorders), genomic sequence analysis of 51 genes, blood, buccal swab, or amniotic fluid, comprehensive	**Versiti™ Comprehensive Bleeding Disorder Panel Versiti™ Diagnostic Laboratories, Versiti™**	eC PA	eC PA	eC PA
0273U	Hematology (genetic hyperfibrinolysis, delayed bleeding), genomic sequence analysis of 8 genes (F13A1, F13B, FGA, FGB, FGG, SERPINA1, SERPINE1, SERPINF2, PLAU), blood, buccal swab, or amniotic fluid	**Versiti™ Fibrinolytic Disorder Panel, Versiti™ Diagnostic Laboratories, Versiti™**	eC PA	eC PA	eC PA
0274U	Hematology (genetic platelet disorders), genomic sequence analysis of 43 genes, blood, buccal swab, or amniotic fluid	**Versiti™ Comprehensive Platelet Disorder Panel, Versiti™ Diagnostic Laboratories, Versiti™**	eC PA	eC PA	eC PA
0276U	Hematology (inherited thrombocytopenia), genomic sequence analysis of 42 genes, blood, buccal swab, or amniotic fluid	**Versiti™ Inherited Thrombocytopenia Panel, Versiti™ Diagnostic Laboratories, Versiti™**	eC PA	eC PA	eC PA
0277U	Hematology (genetic platelet function disorder), genomic sequence analysis of 31 genes, blood, buccal swab, or amniotic fluid	**Versiti™ Platelet Function Disorder Panel, Versiti™ Diagnostic Laboratories, Versiti™**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0278U	Hematology (genetic thrombosis), genomic sequence analysis of 12 genes, blood, buccal swab, or amniotic fluid	**Versiti™ Thrombosis Panel, Versiti™ Diagnostic Laboratories**	eC PA	eC PA	eC PA
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	**Versiti™ VWF Collagen III Binding, Versiti™ Diagnostic Laboratories,**	OOS for eC- No PA required	Not Covered	OOS for eC- No PA required
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	**Versiti™ VWF Collagen IV Binding, Versiti™ Diagnostic Laboratories, Versiti™**	OOS for eC- No PA required	Not Covered	OOS for eC- No PA required
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	**Versiti™ VWF Propeptide Antigen, Versiti™ Diagnostic Laboratories, Versiti™**	OOS for eC- No PA required	Not Covered	OOS for eC- No PA required
0282U	Red blood cell antigen typing, DNA, genotyping of 12 blood group system genes to predict 44 red blood cell antigen phenotypes	**Versiti™ Red Cell Genotyping Panel, Versiti™ Diagnostic Laboratories, Versiti™**	eC PA	eC PA	eC PA
0283U	von Willebrand factor (VWF), type 2B, platelet-binding evaluation, radioimmunoassay, plasma	**Versiti™ VWD Type 2B Evaluation, Versiti™ Diagnostic Laboratories, Versiti™**	OOS for eC- No PA required	Not Covered	OOS for eC- No PA required
0284U	von Willebrand factor (VWF), type 2N, factor VIII and VWF binding evaluation, enzyme-linked immunosorbent assays (ELISA), plasma	**Versiti™ VWD Type 2N Binding, Versiti™ Diagnostic Laboratories, Versiti™**	OOS for eC- No PA required	Not Covered	OOS for eC- No PA required

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0285U	Oncology, disease progression and response monitoring to radiation, chemotherapy, or other systematic cancer treatments, cell-free DNA, quantitative branched chain DNA amplification, plasma, reported in ng/mL	**RadTox™ cfDNA test, DiaCarta Clinical Lab, DiaCarta Inc**	eC PA	eC PA	eC PA
0286U	CEP72 (centrosomal protein, 72-KDa), NUDT15 (nudix hydrolase 15) and TPMT (thiopurine S-methyltransferase) (eg, drug metabolism) gene analysis, common variants	**CNT (CEP72, TPMT and NUDT15) genotyping panel, RPRD Diagnostics.**	eC PA	eC PA	eC PA
0287U	Oncology (thyroid), DNA and mRNA, next-generation sequencing analysis of 112 genes, fine needle aspirate or formalin-fixed paraffin-embedded (FFPE) tissue, algorithmic prediction of cancer recurrence, reported as a categorical risk result (low, intermediate, high)	**PA via eC ThyroSeq® CRC, CBLPath, Inc, University of Pittsburgh Medical Center**	eC PA	eC PA	eC PA
0288U	Oncology (lung), mRNA, quantitative PCR analysis of 11 genes (BAG1, BRCA1, CDC6, CDK2AP1, ERBB3, FUT3, IL11, LCK, RND3, SH3BGR, WNT3A) and 3 reference genes (ESD, TBP, YAP1), formalin-fixed paraffin-embedded (FFPE) tumor tissue, algorithmic interpretation reported as a recurrence risk score	**DetermaRx™ (Oncocyte Corporation)**	eC PA	eC PA	eC PA
0289U	Neurology (Alzheimer disease), mRNA, gene expression profiling by RNA sequencing of 24 genes, whole blood, algorithm reported as predictive risk score	**MindX Blood Test™ - Memory/Alzheimer's, (MindX Sciences™ Laboratory, MindX Sciences™ Inc)**	eC PA	eC PA	eC PA
0290U	Pain management, mRNA, gene expression profiling by RNA sequencing of 36 genes, whole blood, algorithm reported as predictive risk score	**MindX Blood Test™ - Pain, MindX Sciences™ Laboratory, MindX Sciences™ Inc**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0291U	Psychiatry (mood disorders), mRNA, gene expression profiling by RNA sequencing of 144 genes, whole blood, algorithm reported as predictive risk score	**MindX Blood Test™ - Mood, MindX Sciences™ Laboratory, MindX Sciences™ Inc**	eC PA	eC PA	eC PA
0292U	Psychiatry (stress disorders), mRNA, gene expression profiling by RNA sequencing of 72 genes, whole blood, algorithm reported as predictive risk score	**MindX Blood Test™ - Stress, MindX Sciences™ Laboratory, MindX Sciences™ Inc**	eC PA	eC PA	eC PA
0293U	Psychiatry (suicidal ideation), mRNA, gene expression profiling by RNA sequencing of 54 genes, whole blood, algorithm reported as predictive risk score	**MindX Blood Test™ - Suicidality, MindX Sciences™ Laboratory, MindX Sciences™ Inc**	eC PA	eC PA	eC PA
0294U	Longevity and mortality risk, mRNA, gene expression profiling by RNA sequencing of 18 genes, whole blood, algorithm reported as predictive risk score	**MindX Blood Test™ - Longevity, MindX Sciences™ Laboratory, MindX Sciences™ Inc**	eC PA	eC PA	eC PA
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	**DCISionRT®, PreludeDx™, (Prelude Corporation)**	Not Covered	Not Covered	Not Covered

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0296U	Oncology (oral and/or oropharyngeal cancer), gene expression profiling by RNA sequencing at least 20 molecular features (eg, human and/or microbial mRNA), saliva, algorithm reported as positive or negative for signature associated with malignancy	**mRNA CancerDetect™(Viome Life Sciences, Inc)**	eC PA	eC PA	eC PA
0297U	Oncology (pan tumor), whole genome sequencing of paired malignant and normal DNA specimens, fresh or formalin-fixed paraffin-embedded (FFPE) tissue, blood or bone marrow, comparative sequence analyses and variant identification	**Praxis Somatic Whole Genome Sequencing, (Praxis Genomics LLC)**	eC PA	eC PA	eC PA
0298U	Oncology (pan tumor), whole transcriptome sequencing of paired malignant and normal RNA specimens, fresh or formalin-fixed paraffin-embedded (FFPE) tissue, blood or bone marrow, comparative sequence analyses and expression level and chimeric transcript identification	**Praxis Somatic Transcriptome, (Praxis Genomics LLC)**	eC PA	eC PA	eC PA
0299U	Oncology (pan tumor), whole genome optical genome mapping of paired malignant and normal DNA specimens, fresh frozen tissue, blood, or bone marrow, comparative structural variant identification	**Praxis Somatic Optical Genome Mapping, (Praxis Genomics LLC)**	eC PA	eC PA	eC PA
0300U	Oncology (pan tumor), whole genome sequencing and optical genome mapping of paired malignant and normal DNA specimens, fresh tissue, blood, or bone marrow, comparative sequence analyses and variant identification	**Praxis Somatic Combined Whole Genome Sequencing and Optical Genome Mapping, (Praxis Genomics LLC)**	eC PA	eC PA	eC PA
0301U	Infectious agent detection by nucleic acid (DNA or RNA), Bartonella henselae and Bartonella quintana, droplet digital PCR (ddPCR);	**Bartonella ddPCR, Galaxy Diagnostics Inc**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0302U	Infectious agent detection by nucleic acid (DNA or RNA), Bartonella henselae and Bartonella quintana, droplet digital PCR (ddPCR); following liquid enhancement	**Bartonella Digital ePCR™, Galaxy Diagnostics Inc**	eC PA	eC PA	eC PA
0306U	Oncology (minimal residual disease [MRD]), next-generation targeted sequencing analysis, cell-free DNA, initial (baseline) assessment to determine a patient specific panel for future comparisons to evaluate for MRD	**Invitae PCM Tissue Profiling and MRD Baseline Assay, Invitae Corporation**	eC PA	eC PA	eC PA
0307U	Oncology (minimal residual disease [MRD]), next-generation targeted sequencing analysis of a patient-specific panel, cell-free DNA, subsequent assessment with comparison to previously analyzed patient specimens to evaluate for MRD	**Invitae PCM MRD Monitoring, Invitae Corporation**	eC PA	eC PA	eC PA
0310U	Pediatrics (vasculitis, Kawasaki disease [KD]), analysis of 3 biomarkers (NT-proBNP, C-reactive protein, and T-uptake), plasma, algorithm reported as a risk score for KD	**HART KD®, Prevencio, Inc**	Not Covered	Not Covered	Not Covered
0313U	Oncology (pancreas), DNA and mRNA next-generation sequencing analysis of 74 genes and analysis of CEA (CEACAM5) gene expression, pancreatic cyst fluid, algorithm reported as a categorical result (ie, negative, low probability of neoplasia or positive, high probability of neoplasia)	**PancreaSeq® Genomic Classifier, Molecular and Genomic Pathology Laboratory, University of Pittsburgh Medical Center**	eC PA	eC PA	eC PA
0314U	Oncology (cutaneous melanoma), mRNA gene expression profiling by RT-PCR of 35 genes (32 content and 3 housekeeping), utilizing formalin-fixed paraffin-embedded (FFPE) tissue, algorithm reported as a categorical result (ie, benign, intermediate, malignant)	**DecisionDx® DiffDx™-Melanoma, Castle Biosciences, Inc**	eC PA	eC PA	eC PA
0315U	Oncology (cutaneous squamous cell carcinoma), mRNA gene expression profiling by RT-PCR of 40 genes (34 content and 6 housekeeping), utilizing formalin-fixed paraffin-embedded (FFPE) tissue, algorithm	**DecisionDx®-SCC, Castle Biosciences, Inc**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
	reported as a categorical risk result (ie, Class 1, Class 2A, Class 2B)				
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	**LungLB®, LungLife AI®,**	eC PA	eC PA	eC PA
0318U	Pediatrics (congenital epigenetic disorders), whole genome methylation analysis by microarray for 50 or more genes, blood	**EpiSign Complete, Greenwood Genetic Center**	eC PA	eC PA	eC PA
0319U	Nephrology (renal transplant), RNA expression by select transcriptome sequencing, using pretransplant peripheral blood, algorithm reported as a risk score for early acute rejection	**Clarava™ , Verici Dx,**	eC PA	eC PA	eC PA
0320U	Nephrology (renal transplant), RNA expression by select transcriptome sequencing, using posttransplant peripheral blood, algorithm reported as a risk score for acute cellular rejection	**Tuteva™ , Verici Dx,**	eC PA	eC PA	eC PA
0323U	Infectious agent detection by nucleic acid (DNA and RNA), central nervous system pathogen, metagenomic next-generation sequencing, cerebrospinal fluid (CSF), identification of pathogenic bacteria, viruses, parasites, or fungi	**Johns Hopkins Metagenomic Next Generation Sequencing Assay for Infectious Disease Diagnostics**	Not Covered	Not Covered	Not Covered
0326U	Targeted genomic sequence analysis panel, solid organ neoplasm, cell-free circulating DNA analysis of 83 or more genes, interrogation for sequence variants, gene copy number amplifications, gene rearrangements, microsatellite instability and tumor mutational burden	**Guardant360®, Guardant Health, Inc, Guardant Health, Inc**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0327U	Fetal aneuploidy (trisomy 13, 18, and 21), DNA sequence analysis of selected regions using maternal plasma, algorithm reported as a risk score for each trisomy, includes sex reporting, if performed	**Vasistera™, Natera, Inc, Natera, Inc**	OOS for eC- No PA required	Not Covered	OOS for eC- No PA required
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	**CareView360, Newstar Medical Laboratories, LLC, Newstar Medical Laboratories, LLC**	Not Covered	Not Covered	Not Covered
0329U	Oncology (neoplasia), exome and transcriptome sequence analysis for sequence variants, gene copy number amplifications and deletions, gene rearrangements, microsatellite instability and tumor mutational burden utilizing DNA and RNA from tumor with DNA from normal blood or saliva for subtraction, report of clinically significant mutation(s) with therapy associations	**Oncomap™ ExTra, Exact Sciences, Inc, Genomic Health Inc**	eC PA	eC PA	eC PA
0330U	Infectious agent detection by nucleic acid (DNA or RNA), vaginal pathogen panel, identification of 27 organisms, amplified probe technique, vaginal swab	**Bridge Women's Health Infectious Disease Detection Test, Bridge Diagnostics, ThermoFisher and Hologic Test Kit on Panther Instrument**	Not Covered	Not Covered	Not Covered
0331U	Oncology (hematolymphoid neoplasia), optical genome mapping for copy number alterations and gene rearrangements utilizing DNA from blood or bone marrow, report of clinically significant alterations	**Augusta Hematology Optical Genome Mapping, Georgia Esoteric and Molecular Labs, Augusta University, Bionano**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0332U	Oncology (pan-tumor), genetic profiling of 8 DNA-regulatory (epigenetic) markers by quantitative polymerase chain reaction (qPCR), whole blood, reported as a high or low probability of responding to immune checkpoint–inhibitor therapy	**EpiSwitch® CiRT (Checkpoint-inhibitor Response Test), Next Bio-Research Services, LLC, Oxford BioDynamics, PLC**	eC PA	eC PA	eC PA
0333U	Oncology (liver), surveillance for hepatocellular carcinoma (HCC) in high-risk patients, analysis of methylation patterns on circulating cell-free DNA (cfDNA) plus measurement of serum of AFP/AFP-L3 and oncoprotein des-gamma-carboxy-prothrombin (DCP), algorithm reported as normal or abnormal result	**HelioLiver™ Test, Fulgent Genetics, LLC, Helio Health, Inc**	eC PA	eC PA	eC PA
0334U	Oncology (solid organ), targeted genomic sequence analysis, formalin-fixed paraffin-embedded (FFPE) tumor tissue, DNA analysis, 84 or more genes, interrogation for sequence variants, gene copy number amplifications, gene rearrangements, microsatellite instability and tumor mutational burden	**Guardant360 TissueNext™, Guardant Health, Inc, Guardant Health, Inc**	eC PA	eC PA	eC PA
0335U	Rare diseases (constitutional/heritable disorders), whole genome sequence analysis, including small sequence changes, copy number variants, deletions, duplications, mobile element insertions, uniparental disomy (UPD), inversions, aneuploidy, mitochondrial genome sequence analysis with heteroplasmy and large deletions, short tandem repeat (STR) gene expansions, fetal sample, identification and categorization of genetic variants	**IriSight™ Prenatal Analysis – Proband, Variantyx, Inc, Variantyx, Inc**	eC PA	eC PA	eC PA
0336U	Rare diseases (constitutional/heritable disorders), whole genome sequence analysis, including small sequence changes, copy number variants, deletions, duplications, mobile element insertions, uniparental disomy (UPD), inversions, aneuploidy, mitochondrial genome sequence analysis with heteroplasmy and large deletions, short tandem repeat (STR) gene expansions, blood or saliva, identification and	**IriSight™ Prenatal Analysis – Comparator, Variantyx, Inc, Variantyx, Inc**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
	categorization of genetic variants, each comparator genome (eg, parent)				
0339U	Oncology (prostate), mRNA expression profiling of HOXC6 and DLX1, reverse transcription polymerase chain reaction (RT-PCR), first-void urine following digital rectal examination, algorithm reported as probability of high-grade cancer	**SelectMDx® for Prostate Cancer, MDxHealth®, Inc, MDxHealth®, Inc**	eC PA	eC PA	eC PA
0340U	Oncology (pan-cancer), analysis of minimal residual disease (MRD) from plasma, with assays personalized to each patient based on prior next-generation sequencing of the patient's tumor and germline DNA, reported as absence or presence of MRD, with disease-burden correlation, if appropriate	**Signatera™, Natera, Inc, Natera, Inc**	eC PA	eC PA	eC PA
0341U	Fetal aneuploidy DNA sequencing comparative analysis, fetal DNA from products of conception, reported as normal (euploidy), monosomy, trisomy, or partial deletion/duplication, mosaicism, and segmental aneuploid	**Single Cell Prenatal Diagnosis (SCPD) Test, Luna Genetics, Inc, Luna Genetics, Inc**	eC PA	eC PA	eC PA
0343U	Oncology (prostate), exosome-based analysis of 442 small noncoding RNAs (sncRNAs) by quantitative reverse transcription polymerase chain reaction (RT-qPCR), urine, reported as molecular evidence of no-, low-, intermediate- or high-risk of prostate cancer	**miR Sentinel™ Prostate Cancer Test, miR Scientific, LLC, miR Scientific, LLC**	eC PA	eC PA	eC PA
0345U	Psychiatry (eg, depression, anxiety, attention deficit hyperactivity disorder [ADHD]), genomic analysis panel, variant analysis of 15 genes, including deletion/duplication analysis of CYP2D6	**GeneSight®Psychotropic, Assurex Health, Inc, Myriad Genetics, Inc**	eC PA	eC PA	eC PA
0347U	Drug metabolism or processing (multiple conditions), whole blood or buccal specimen, DNA analysis, 16 gene report, with variant analysis and reported phenotypes	**RightMed® PGx16 Test, OneOme®, OneOme®, LLC**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0348U	Drug metabolism or processing (multiple conditions), whole blood or buccal specimen, DNA analysis, 25 gene report, with variant analysis and reported phenotypes	**RightMed® Comprehensive Test Exclude F2 and F5, OneOme®, OneOme®, LLC**	eC PA	eC PA	eC PA
0349U	Drug metabolism or processing (multiple conditions), whole blood or buccal specimen, DNA analysis, 27 gene report, with variant analysis, including reported phenotypes and impacted gene-drug interactions	**RightMed® Comprehensive Test, OneOme®, OneOme®, LLC**	eC PA	eC PA	eC PA
0350U	Drug metabolism or processing (multiple conditions), whole blood or buccal specimen, DNA analysis, 27 gene report, with variant analysis and reported phenotypes	**RightMed® Gene Report, OneOme®, OneOme®, LLC**	eC PA	eC PA	eC PA
0355U	APOL1 (apolipoprotein L1) (eg, chronic kidney disease), risk variants (G1, G2)	**Apolipoprotein L1 (APOL1) Renal Risk Variant Genotyping, Quest Diagnostics®, Quest Diagnostics®**	eC PA	eC PA	eC PA
0356U	Oncology (oropharyngeal or ana), evaluation of 17 DNA biomarkers using droplet digital PCR (ddPCR), cell-free DNA, algorithm reported as a prognostic risk score for cancer recurrence	**NavDx®, Naveris, Inc, Naveris, Inc**	eC PA	eC PA	eC PA
0364U	Oncology (hematolymphoid neoplasm), genomic sequence analysis using multiplex (PCR) and next-generation sequencing with algorithm, quantification of dominant clonal sequence(s), reported as presence or absence of minimal residual disease (MRD) with quantitation of disease burden, when appropriate	**clonoSEQ® Assay, Adaptive Biotechnologies**	eC PA	eC PA	eC PA
0368U	Oncology (colorectal cancer), evaluation for mutations of APC, BRAF, CTNNB1, KRAS, NRAS, PIK3CA, SMAD4, and TP53, and methylation markers (MYO1G, KCNQ5, C9ORF50, FLI1, CLIP4, ZNF132 and TWIST1), multiplex quantitative polymerase	**ColoScapeTM Colorectal Cancer Detection, DiaCarta Clinical Lab**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
	chain reaction (qPCR), circulating cell-free DNA (cfDNA), plasma, report of risk score for advanced adenoma or colorectal cancer				
0371U	Infectious agent detection by nucleic acid (DNA or RNA), genitourinary pathogen, semiquantitative identification, DNA from 16 bacterial organisms and 1 fungal organism, multiplex amplified probe technique via quantitative polymerase chain reaction (qPCR), urine	**Qlear UTI, Lifescan Labs of Illinois, Thermo Fisher Scientific**	OOS for eC - Not Covered	OOS for eC - Not Covered	OOS for eC - Not Covered
0372U	Infectious disease (genitourinary pathogens), antibiotic-resistance gene detection, multiplex amplified probe technique, urine, reported as an antimicrobial stewardship risk score	**Qlear UTI - Reflex ABR, Lifescan Labs of Illinois, Thermo Fisher Scientific**	OOS for eC - Not Covered	OOS for eC - Not Covered	OOS for eC - Not Covered
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	**OvaWatch (Aspira Women's Health)**	OOS for eC - Not Covered	OOS for eC - Not Covered	OOS for eC - Not Covered
0376U	Oncology (prostate cancer), image analysis of at least 128 histologic features and clinical factors, prognostic algorithm determining the risk of distant metastases, and prostate cancer-specific mortality, includes predictive algorithm to androgen deprivation-therapy response, if appropriate	**ArteraAI Prostate Test (Artera Inc.).**	OOS for eC - Not Covered	OOS for eC - Not Covered	OOS for eC - Not Covered
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)	**Liposcale test (CIMA Sciences LLC).**	OOS for eC - Not Covered	OOS for eC - Not Covered	OOS for eC - Not Covered
0378U	RFC1 (replication factor C subunit 1), repeat expansion variant analysis by traditional and repeat-primed PCR, blood, saliva, or buccal swab	**UCGSL RFC1 Repeat Expansion Test, University of Chicago Genetic Services Laboratories**	OOS for eC-Not Covered	OOS for eC-Not Covered	OOS for eC-Not Covered
0379U	Targeted genomic sequence analysis panel, solid organ neoplasm, DNA (523 genes) and RNA (55 genes) by next-generation sequencing, interrogation for sequence variants,	**Solid Tumor Expanded Panel, Quest Diagnostics**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
	gene copy number amplifications, gene rearrangements, microsatellite instability, and tumor mutational burden				
0388U	Oncology (non-small cell lung cancer), nextgeneration sequencing with identification of single nucleotide variants, copy number variants, insertions and deletions, and structural variants in 37 cancer-related genes, plasma, with report for alteration detection	**InVisionFirst®-Lung Liquid Biopsy, Inivata, Inc, Inivata,**	eC PA	eC PA	eC PA
0389U	Pediatric febrile illness (Kawasaki disease [KD]), interferon alpha-inducible protein 27 (IFI27) and mast cell-expressed membrane protein 1 (MCEMP1), RNA, using reverse transcription polymerase chain reaction (RT-qPCR), blood, reported as a risk score for KD	**KawasakiDx, OncoOmicsDx Laboratory, mProbe**	eC PA	eC PA	eC PA
0391U	Oncology (solid tumor), DNA and RNA by next-generation sequencing, utilizing formalin-fixed paraffin-embedded (FFPE) tissue, 437 genes, interpretive report for single nucleotide variants, splice-site variants, insertions/deletions, copy number alterations, gene fusions, tumor mutational burden, and microsatellite instability, with algorithm quantifying immunotherapy response score	**Strata SelectTM,Strata Oncology, Inc, Strata Oncology, Inc**	eC PA	eC PA	eC PA
0392U	Drug metabolism (depression, anxiety, attention deficit hyperactivity disorder [ADHD]), gene-drug interactions, variant analysis of 16 genes, including deletion/duplication analysis of CYP2D6, reported as impact of gene-drug interaction for each drug	**Medication Management Neuropsychiatric Panel, RCA Laboratory Services LLC d/b/a GENETWORx, GENETWORx**	eC PA	eC PA	eC PA
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	**OncobiotaLUNG, MicronomaTM, MicronomaTM**	eC PA	eC PA	eC PA
0398U	Gastroenterology (Barrett esophagus), P16, RUNX3, HPP1, and FBN1 DNA methylation analysis using PCR, formalin-fixed paraffin embedded (FFPE) tissue, algorithm reported as risk score for progression to high-grade dysplasia or cancer	**ESOPREDICT® Barrett's Esophagus Risk Classifier Assay, Capsulomics, Inc d/b/a Previse**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0400U	Obstetrics (expanded carrier screening), 145 genes by next-generation sequencing, fragment analysis and multiplex ligation dependent probe amplification, DNA, reported as carrier positive or negative	**Genesys Carrier Panel, Genesys Diagnostics, Inc**	eC PA	eC PA	eC PA
0401U	Cardiology (coronary heart disease [CAD]), 9 genes (12 variants), targeted variant genotyping, blood, saliva, or buccal swab, algorithm reported as a genetic risk score for a coronary event	**CARDIO inCodeScore (CICSCORE), GENinCode U.S. Inc, GENinCode U.S. Inc**	eC PA	eC PA	eC PA
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	**Abbott Alinity m STI Assay, Abbott Molecular, Inc**	OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
0403U	Oncology (prostate), mRNA, gene expression profiling of 18 genes, first-catch post-digital rectal examination urine (or processed first-catch urine), algorithm reported as percentage of likelihood of detecting clinically significant prostate cancer	**MyProstateScore 2.0, LynxDX, LynxDX**	eC PA	eC PA	eC PA
0405U	Oncology (pancreatic), 59 methylation haplotype block markers, next-generation sequencing, plasma, reported as cancer signal detected or not detected	**BTG Early Detection of Pancreatic Cancer, Breakthrough Genomics, Breakthrough Genomics**	eC PA	eC PA	eC PA
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	**IntelxDKDTM, Renalytix Inc, Renalytix Inc, NYC, NY**	OOS for eC - Not Covered	OOS for eC - Not Covered	OOS for eC - Not Covered

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0409U	Oncology (solid tumor), DNA (80 genes) and RNA (36 genes), by next-generation sequencing from plasma, including single nucleotide variants, insertions/deletions, copy number alterations, microsatellite instability, and fusions, report showing identified mutations with clinical actionability	**LiquidHALLMARK®, Lucence Health, Inc**	eC PA	eC PA	eC PA
0410U	Oncology (pancreatic), DNA, whole genome sequencing with 5-hydroxymethylcytosine enrichment, whole blood or plasma, algorithm reported as cancer detected or not detected	**AvantectTM Pancreatic Cancer Test, ClearNoteTM Health, ClearNoteTM Health**	eC PA	eC PA	eC PA
0411U	Psychiatry (eg, depression, anxiety, attention deficit hyperactivity disorder [ADHD]), genomic analysis panel, variant analysis of 15 genes, including deletion/duplication analysis of CYP2D6	**IDgenetix®, Castle Biosciences, Inc, Castle Biosciences, Inc**	eC PA	eC PA	eC PA
0413U	Oncology (hematolymphoid neoplasm), optical genome mapping for copy number alterations, aneuploidy, and balanced/complex structural rearrangements, DNA from blood or bone marrow, report of clinically significant alterations	**DH Optical Genome Mapping/Digital Karyotyping Assay, The Clinical Genomics and Advanced Technology (CGAT) Laboratory at Dartmouth Health, Bionano Genomics**	eC PA	eC PA	eC PA
0414U	Oncology (lung), augmentative algorithmic analysis of digitized whole slide imaging for 8 genes (ALK, BRAF, EGFR, ERBB2, MET, NTRK1-3, RET, ROS1), and KRAS G12C and PD-L1, if performed, formalin-fixed paraffin-embedded (FFPE) tissue, reported as positive or negative for each biomarker	**LungOI, Imagene**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0417U	Rare diseases (constitutional/heritable disorders), whole mitochondrial genome sequence with heteroplasmy detection and deletion analysis, nuclear-encoded mitochondrial gene analysis of 335 nuclear genes, including sequence changes, deletions, insertions, and copy number variants analysis, blood or saliva, identification and categorization of mitochondrial disorder-associated genetic variants	**Genomic Unity® Comprehensive Mitochondrial Disorders Analysis, Variantyx Inc, Variantyx Inc**	eC PA	eC PA	eC PA
0418U	Oncology (breast), augmentative algorithmic analysis of digitized whole slide imaging of 8 histologic and immunohistochemical features, reported as a recurrence score	**PreciseDx Breast Biopsy Test, PreciseDx, PreciseDx, Inc NYC, NY**	eC PA	eC PA	eC PA
0419U	Neuropsychiatry (eg, depression, anxiety), genomic sequence analysis panel, variant analysis of 13 genes, saliva or buccal swab, report of each gene phenotype	**Tempus nP, Tempus Labs, Inc, Tempus Labs, Inc**	eC PA	eC PA	eC PA
0420U	Oncology (urothelial), mRNA expression profiling by real-time quantitative PCR of MDK, HOXA13, CDC2, IGFBP5, and CXCR2 in combination with droplet digital PCR (ddPCR) analysis of 6 single-nucleotide polymorphisms (SNPs) genes TERT and FGFR3, urine, algorithm reported as a risk score for urothelial carcinoma	**Cxbladder Detect+, Pacific Edge Diagnostics**	eC PA	eC PA	eC PA
0421U	Oncology (colorectal) screening, quantitative real-time target and signal amplification of 8 RNA markers (GAPDH, SMAD4, ACY1, AREG, CDH1, KRAS, TNFRSF10B, EGLN2) and fecal hemoglobin, algorithm reported as a positive or negative for colorectal cancer risk	**Colosense™, Geneoscopy, Inc, Geneoscopy, Inc**	eC PA	eC PA	eC PA
0422U	Oncology (pan-solid tumor), analysis of DNA biomarker response to anti-cancer therapy using cell-free circulating DNA, biomarker comparison to a previous baseline pre-treatment cell-free circulating DNA analysis using next-generation sequencing, algorithm reported as a quantitative change from baseline, including specific alterations, if appropriate	**Guardant360 Response™, Guardant Health, Inc, Guardant Health, Inc**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0423U	Psychiatry (eg, depression, anxiety), genomic analysis panel, including variant analysis of 26 genes, buccal swab, report including metabolizer status and risk of drug toxicity by condition	**Genomind® Pharmacogenetics Report - Full, Genomind®, Inc, Genomind®, Inc**	eC PA	eC PA	eC PA
0424U	Oncology (prostate), exosome-based analysis of 53 small noncoding RNAs (sncRNAs) by quantitative reverse transcription polymerase chain reaction (RT-qPCR), urine, reported as no molecular evidence, low-, moderate- or elevated-risk of prostate cancer	**miR Sentinel™ Prostate Cancer Test, miR Scientific®, LLC, miR Scientific®, LLC**	eC PA	eC PA	eC PA
0425U	Genome (eg, unexplained constitutional or heritable disorder or syndrome), rapid sequence analysis, each comparator genome (eg, parents, siblings)	**RCIGM Rapid Whole Genome Sequencing, Comparator Genome, Rady Children's Institute for Genomic Medicine, Rady Children's Institute for Genomic Medicine**	Not Covered	Not Covered	Not Covered
0426U	Genome (eg, unexplained constitutional or heritable disorder or syndrome), ultra-rapid sequence analysis	**RCIGM Ultra-Rapid Whole Genome Sequencing, Rady Children's Institute for Genomic Medicine, Rady Children's Institute for Genomic Medicine**	Not Covered	Not Covered	Not Covered
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)	**Omnipathology Oropharyngeal HPV PCR Test, OmniPathology Solutions, Medical Corporation**	Not Covered	Not Covered	Not Covered

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0433U	Oncology (prostate), 5 DNA regulatory markers by quantitative PCR, whole blood, algorithm, including prostate-specific antigen, reported as likelihood of cancer [EpiSwitch® Prostate Screening Test (PSE), Oxford BioDynamics Inc]	**EpiSwitch® Prostate Screening Test (PSE), Oxford BioDynamics Inc, Oxford BioDynamics PLC**	eC PA	eC PA	eC PA
0434U	Drug metabolism (adverse drug reactions and drug response), genomic analysis panel, variant analysis of 25 genes with reported phenotype	**RightMed® Gene Test Exclude F2 and F5, OneOme® LLC,**	eC PA	eC PA	eC PA
0437U	Psychiatry (anxiety disorders), mRNA, gene expression profiling by RNA sequencing of 15 biomarkers, whole blood, algorithm reported as predictive risk score	**MindX OneTM Blood Test – Anxiety, MindX Sciences, MindX Sciences]**	eC PA	eC PA	eC PA
0438U	Drug metabolism (adverse drug reactions and drug response), buccal specimen, gene-drug interactions, variant analysis of 33 genes, including deletion/duplication analysis of CYP2D6, including reported phenotypes and impacted gene-drug interactions	**EffectiveRXTM Comprehensive Panel, RCA Laboratory Services LLC d/b/a GENETWORx, GENETWORx**	eC PA	eC PA	eC PA
0439U	Cardiology (coronary heart disease [CHD]), DNA, analysis of 5 single-nucleotide polymorphisms (SNPs) (rs11716050 [LOC105376934], rs6560711 [WDR37], rs3735222 [SCIN/LOC107986769], rs6820447 [intergenic], and rs9638144 [ESYT2]) and 3 DNA methylation markers (cg00300879 [transcription start site {TSS200} of CNKSR1], cg09552548 [intergenic], and cg14789911 [body of SPATC1L]), qPCR and digital PCR, whole blood, algorithm reported as a 4-tiered risk score for a 3-year risk of symptomatic CHD	**Epi+Gen CHD™, Cardio Diagnostics, Inc**	eC PA	eC PA	eC PA
0440U	Cardiology (coronary heart disease [CHD]), DNA, analysis of 10 single-nucleotide polymorphisms (SNPs) (rs710987 [LINC010019], rs1333048 [CDKN2B-AS1], rs12129789 [KCND3], rs942317 [KTN1-AS1], rs1441433 [PPP3CA], rs2869675 [PREX1], rs4639796 [ZBTB41], rs4376434	**PrecisionCHD™, Cardio Diagnostics, Inc**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
	[LINC00972], rs12714414 [TMEM18], and rs7585056 [TMEM18]) and 6 DNA methylation markers (cg03725309 [SARS1], cg12586707 [CXCL1, cg04988978 [MPO], cg17901584 [DHCR24-DT], cg21161138 [AHRR], and cg12655112 [EHD4]), qPCR and digital PCR, whole blood, algorithm reported as detected or not detected for CHD				
0444U	Oncology (solid organ neoplasia), targeted genomic sequence analysis panel of 361 genes, interrogation for gene fusions, translocations, or other rearrangements, using DNA from formalin-fixed paraffin-embedded (FFPE) tumor tissue, report of clinically significant variant(s)	**Aventa FusionPlus™, Aventa Genomics, LLC**	eC PA	eC PA	eC PA
0449U	Carrier screening for severe inherited conditions (eg, cystic fibrosis, spinal muscular atrophy, beta hemoglobinopathies [including sickle cell disease], alpha thalassemia), regardless of race or self-identified ancestry, genomic sequence analysis panel, must include analysis of 5 genes (CFTR, SMN1, HBB, HBA1, HBA2)	**UNITY Carrier Screen™, BillionToOne Laboratory**	eC PA	eC PA	eC PA
0452U	Oncology (bladder), methylated PENK DNA detection by linear target enrichment-quantitative methylation-specific real-time PCR (LTE-aMSP), urine, reported as likelihood of bladder cancer	**EarlyTect® Bladder Cancer Detection (EarlyTect® BCD), Promis Diagnostics, Inc**	eC PA	eC PA	eC PA
0453U	Oncology (colorectal cancer), cellfree DNA (cfDNA), methylationbased quantitative PCR assay (SEPTIN9, IKZF1 BCAT1, Septin9-2, VAV3, BCAN), plasma, reported as presence or absence of circulating tumor DNA (ctDNA)	**Chromosome Genome Mapping, UR Medicine Labs, Bionano Genomics, Inc**	eC PA	eC PA	eC PA
0454U	Rare diseases (constitutional/heritable disorders), identification of copy number variations, inversions, insertions, translocation, and other structural variants by optical genome mapping	**Chromosome Genome Mapping, UR Medicine Labs, Bionano Genomics, Inc**	eC PA	eC PA	eC PA
0460U	Oncology, whole blood or buccal, DNA single-nucleotide polymorphism (SNP) genotyping by real-time PCR of 24 genes, with variant analysis and reported phenotypes	**RightMed® Oncology Gene Report, OneOme® LLC**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0461U	Oncology, pharmacogenomic analysis of single-nucleotide polymorphism (SNP) genotyping by real-time PCR of 24 genes, whole blood or buccal swab, with variant analysis, including impacted gene-drug interactions and reported phenotypes	**RightMed® Oncology Medication Report, OneOme® LLC**	eC PA	eC PA	eC PA
0463U	Oncology (cervix), mRNA gene expression profiling of 14 biomarkers (E6 and E7 of the highest-risk human papillomavirus [HPV] types 16, 18, 31, 33, 45, 52, 58), by real-time nucleic acid sequence-based amplification (NASBA), exo- or endocervical epithelial cells, algorithm reported as positive or negative for increased risk of cervical dysplasia or cancer for each biomarker	**Proofer '7 HPV mRNA E6 and E7 Biomarker Test, Global Diagnostics Labs, LLC, PreTect AS**	Not Covered	Not Covered	Not Covered
0464U	Oncology (colorectal) screening, quantitative real-time target and signal amplification, methylated DNA markers, including LASS4, LRRC4 and PPP2R5C, a reference marker ZDHHC1, and a protein marker (fecal hemoglobin), utilizing stool, algorithm reported as a positive or negative result	**Cologuard PlusTM, Exact Sciences Laboratories, LLC**	eC PA	eC PA	eC PA
0465U	Oncology (urothelial carcinoma), DNA, quantitative methylationspecific PCR of 2 genes (ONECUT2, VIM), algorithmic analysis reported as positive or negative	**UriFind® Blood Cancer Assay, DiaCarta, Inc, AnchorDx**	eC PA	eC PA	eC PA
0466U	Cardiology (coronary artery disease [CAD]), DNA, genomewide association studies (564856 single-nucleotide polymorphisms [SNPs], targeted variant genotyping), patient lifestyle and clinical data, buccal swab, algorithm reported as polygenic risk to acquired heart disease	**CardioRisk+, Gene by Gene, Ltd, OpenDNA, Ltd**	eC PA	eC PA	eC PA
0467U	Oncology (bladder), DNA, nextgeneration sequencing (NGS) of 60 genes and whole genome aneuploidy, urine, algorithms reported as minimal residual disease (MRD) status positive or negative and quantitative disease burden	**UroAmp MRD, Convergent Genomics, Inc**	eC PA	eC PA	eC PA
0469U	Rare diseases (constitutional/heritable disorders), whole genome sequence analysis for chromosomal abnormalities, copy number variants, duplications/deletions, inversions, unbalanced translocations, regions of homozygosity (ROH), inheritance pattern that	**IriSightTM CNV Analysis, Variantyx Inc**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
	indicate uniparental disomy (UPD), and aneuploidy, fetal sample (amniotic fluid, chorionic villus sample, or products of conception), identification and categorization of genetic variants, diagnostic report of fetal results based on phenotype with maternal sample and paternal sample, if performed, as comparators and/or maternal cell contamination				
0470U	Oncology (oropharyngeal), detection of minimal residual disease by next-generation sequencing (NGS) based quantitative evaluation of 8 DNA targets, cell-free HPV 16 and 18 DNA from plasma	**HPV-SEQ Test, Sysmex Inostics, Inc**	eC PA	eC PA	eC PA
0471U	Oncology (colorectal cancer), qualitative real-time PCR of 35 variants of KRAS and NRAS genes (exons 2, 3, 4), formalinfixed paraffin-embedded (FFPE), predictive, identification of detected mutations	**CRCdx® RAS Mutation Detection Kit, EntroGen, Inc**	Covered for certain diagnosis only: C18.0, C18.1, C18.2, C18.3 C18.4, C18.5 C18.6, C18.7 C18.8, C18.9 C19, C20, C21.0 C21.1, C21.2 C21.8	Not Covered	Not Covered
0473U	Oncology (solid tumor), nextgeneration sequencing (NGS) of DNA from formalin-fixed paraffinembedded (FFPE) tissue with comparative sequence analysis from a matched normal specimen (blood or saliva), 648 genes, interrogation for sequence variants, insertion and deletion alterations, copy number variants, rearrangements, microsatellite instability, and tumor-mutation burden	**xT CDx, Tempus AI, Inc**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0474U	Hereditary pan-cancer (eg, hereditary sarcomas, hereditary endocrine tumors, hereditary neuroendocrine tumors, hereditary cutaneous melanoma), genomic sequence analysis panel of 88 genes with 20 duplications/deletions using nextgeneration sequencing (NGS), Sanger sequencing, blood or saliva, reported as positive or negative for germline variants, each gene	**GeneticsNow® Comprehensive Germline Panel, GoPath Diagnostics, Inc**	eC PA	eC PA	eC PA
0475U	Hereditary prostate cancerrelated disorders, genomic sequence analysis panel using next-generation sequencing (NGS), Sanger sequencing, multiplex ligation-dependent probe amplification (MLPA), and array comparative genomic hybridization (CGH), evaluation of 23 genes and Duplications/deletions when indicated, pathologic mutations reported with a genetic risk score for prostate cancer	**ProstateNowTM Prostate Germline Panel, GoPath Diagnostics, Inc**	eC PA	eC PA	eC PA
0476U	Drug metabolism, psychiatry (eg, major depressive disorder, general anxiety disorder, attention deficit hyperactivity disorder [ADHD], schizophrenia), whole blood, buccal swab, and pharmacogenomic genotyping of 14 genes and CYP2D6 copy number variant analysis and reported phenotypes	**RightMed® MentalHealth Gene Report, OneOme,LLC**	eC PA	eC PA	eC PA
0477U	Drug metabolism, psychiatry (eg, major depressive disorder, general anxiety disorder, attention deficit hyperactivity disorder [ADHD], schizophrenia), whole blood, buccal swab, and pharmacogenomic genotyping of 14 genes and CYP2D6 copy number variant analysis, including impacted gene-drug interactions and reported phenotypes	**RightMed® Mental Health Medication Report, OneOme, LLC,**	eC PA	eC PA	eC PA
0478U	Oncology (non-small cell lung cancer), DNA and RNA, digital PCR analysis of 9 genes (EGFR, KRAS, BRAF, ALK, ROS1, RET, NTRK 1/2/3, ERBB2, and MET) in formalin-fixed paraffin-embedded (FFPE) tissue, interrogation for single-nucleotide variants, insertions/deletions, gene rearrangements, and reported as	**Lung HDPCRTM, Protean BioDiagnostics**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
	actionable detected variants for therapy selection				
0481U	IDH1 (isocitrate dehydrogenase 1 [NADP+]), IDH2 (isocitrate dehydrogenase 2 [NADP+]), and TERT (telomerase reverse transcriptase) promoter (eg, central nervous system [CNS] tumors), next-generation sequencing (single-nucleotide variants [SNV], deletions, and insertions)	**IDH1, IDH2, and TERT Mutation Analysis, Next-Generation Sequencing, Tumor (IDTRT); Mayo Clinic, Laboratory Developed Test**	eC PA	eC PA	eC PA
0485U	Oncology (solid tumor), cell-free DNA and RNA by next-generation sequencing, interpretative report for germline mutations, clonal hematopoiesis of indeterminate potential, and tumor-derived single-nucleotide variants, small insertions/deletions, copy number alterations, fusions, microsatellite instability, and tumor mutational burden	**Caris Assure™ Caris MPI, Inc; d/b/a Caris Life Sciences®**	eC PA	eC PA	eC PA
0486U	Oncology (pan-solid tumor), nextgeneration sequencing analysis of tumor methylation markers present in cellfree circulating tumor DNA, algorithm reported as quantitative measurement of methylation as a correlate of tumor fraction	**Northstar Response™; BillionToOne Laboratory**	eC PA	eC PA	eC PA
0487U	Oncology (solid tumor), cell-free circulating DNA, targeted genomic sequence analysis panel of 84 genes, interrogation for sequence variants, aneuploidycorrected gene copy number amplifications and losses, gene rearrangements, and microsatellite instability	**Northstar Select™; BillionToOne Laboratory**	eC PA	eC PA	eC PA
0488U	Obstetrics (fetal antigen noninvasive prenatal test), cellfree DNA sequence analysis for detection of fetal presence or absence of 1 or more of the Rh, C, c, D, E, Duffy (Fya), or Kell (K) antigen in alloimmunized pregnancies, reported as selected antigen(s) detected or not detected	**UNITY Fetal Antigen™ NIPT, BillionToOne Laboratory**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0489U	Obstetrics (single-gene noninvasive prenatal test), cellfree DNA sequence analysis of 1 or more targets (eg, CFTR, SMN1, HBB, HBA1, HBA2) to identify paternally inherited pathogenic variants, and relative mutation dosage analysis based on molecular counts to determine fetal inheritance of maternal mutation, algorithm reported as a fetal risk score for the condition (eg, cystic fibrosis, spinal muscular atrophy, beta hemoglobinopathies [including sickle cell disease], alpha thalassemia)	**UNITY Fetal Risk Screen™; BillionToOne Laboratory**	eC PA	eC PA	eC PA
0490U	Oncology (cutaneous or uveal melanoma), circulating tumor cell selection, morphological characterization and enumeration based on differential CD146, high molecular–weight melanomaassociated antigen, CD34 and CD45 protein biomarkers, peripheral blood	**CELLSEARCH® Circulating Melanoma Cell (CMC) Test; Menarini Silicon Biosystems Inc**	Not Covered	Not Covered	Not Covered
0491U	Oncology (solid tumor), circulating tumor cell selection, morphological characterization and enumeration based on differential epithelial cell adhesion molecule (EpCAM), cytokeratins 8, 18, and 19, CD45 protein biomarkers, and quantification of estrogen receptor (ER) protein biomarker–expressing cells, peripheral blood	**CELLSEARCH® ER Circulating Tumor Cell (CTC-ER) Test; Menarini Silicon Biosystems Inc**	Not Covered	Not Covered	Not Covered
0492U	Oncology (solid tumor), circulating tumor cell selection, morphological characterization and enumeration based on differential epithelial cell adhesion molecule (EpCAM), cytokeratins 8, 18, and 19, CD45 protein biomarkers, and quantification of PD-L1 protein biomarkerexpressing cells, peripheral blood	**CELLSEARCH® PDL1 Circulating Tumor Cell (CTCPD- L1) Test; Menarini Silicon Biosystems Inc**	Not Covered	Not Covered	Not Covered
0493U	Transplantation medicine, quantification of donor-derived cell-free DNA (cfDNA) using nextgeneration sequencing, plasma, reported as percentage of donorderived cell-free DNA	**Prospera™, Natera**	eC PA	eC PA	eC PA
0494U	Red blood cell antigen (fetal RhD gene analysis), next-generation sequencing of circulating cell-free DNA (cfDNA) of blood in pregnant individuals known to be RhD negative, reported as positive or negative	**Rh Test, Natera**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0495U	Oncology (prostate), analysis of circulating plasma proteins (tPSA, fPSA, KLK2, PSP94, and GDF15), germline polygenic risk score (60 variants), clinical information (age, family history of prostate cancer, prior negative prostate biopsy), algorithm reported as risk of likelihood of detecting clinically significant prostate cancer	**Stockholm3, BioAgilytix Diagnostics**	eC PA	eC PA	eC PA
0496U	Oncology (colorectal), cell-free DNA, 8 genes for mutations, 7 genes for methylation by real-time RT-PCR, and 4 proteins by enzyme-linked immunosorbent assay, blood, reported positive or negative for colorectal cancer or advanced adenoma risk	**ColoScape™ PLUS, DiaCarta, Inc**	eC PA	eC PA	eC PA
0497U	Oncology (prostate), mRNA geneexpression profiling by real-time RT-PCR of 6 genes (FOXM1, MCM3, MTUS1, TTC21B, ALAS1, and PPP2CA), utilizing formalinfixed paraffin-embedded (FFPE) tissue, algorithm reported as a risk score for prostate cancer	**OncoAssure™ Prostate, DiaCarta**	eC PA	eC PA	eC PA
0498U	Oncology (colorectal), nextgeneration sequencing for mutation detection in 43 genes and methylation pattern in 45 genes, blood, and formalin-fixed paraffin-embedded (FFPE) tissue, report of variants and methylation pattern with interpretation	**OptiSeq™ Colorectal Cancer NGS Panel; DiaCarta, Inc**	eC PA	eC PA	eC PA
0499U	Oncology (colorectal and lung), DNA from formalin-fixed paraffinembedded (FFPE) tissue, nextgeneration sequencing of 8 genes (NRAS, EGFR, CTNNB1, PIK3CA, APC, BRAF, KRAS, and TP53), mutation detection	**OptiSeq™ Dual Cancer Panel Kit; DiaCarta, Inc**	eC PA	eC PA	eC PA
0500U	Autoinflammatory disease (VEXAS syndrome), DNA, UBA1 gene mutations, targeted variant analysis (M41T, M41V, M41L, c.118-2A>C, c.118-1G>C, c.1189 118-2del, S56F, S621C)	**QClamp® Plex VEXAS UBA1 Mutation Test; DiaCarta, Inc**	Not Covered	Not Covered	Not Covered
0501U	Oncology (colorectal), blood, quantitative measurement of cellfree DNA (cfDNA)	**QuantiDNA™ Colorectal Cancer Triage Test, DiaCarta, Inc**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0502U	Human papillomavirus (HPV), E6/E7 markers for high-risk types (16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66, and 68), cervical cells, branched-chain capture hybridization, reported as negative or positive for high risk for HPV	**QuantiVirus™ HPV E6/E7 mRNA Test for Cervical Cancer, DiaCarta**	Not Covered	Not Covered	Not Covered
0507U	Oncology (ovarian), DNA, wholegenome sequencing with 5hydroxymethylcytosine (5hmC) enrichment, using whole blood or plasma, algorithm reported as cancer detected or not detected	**Avantect Ovarian Cancer Test, ClearNote® Health**	eC PA	eC PA	eC PA
0508U	Transplantation medicine, quantification of donor-derived cell-free DNA using 40 singlenucleotide polymorphisms (SNPs), plasma, and urine, initial evaluation reported as percentage of donor-derived cellfree DNA with risk for active rejection	**VitaGraft™ Kidney Baseline + 1st Plasma Test; Oncocyte Corporation**	eC PA	eC PA	eC PA
0509U	Transplantation medicine, quantification of donor-derived cell-free DNA using up to 12 single-nucleotide polymorphisms (SNPs) previously identified, plasma, reported as percentage of donor-derived cell-free DNA with risk for active rejection	**VitaGraft™ Kidney Subsequent, Oncocyte Corporation**	eC PA	eC PA	eC PA
0510U	Oncology (pancreatic cancer), augmentative algorithmic analysis of 16 genes from previously sequenced RNA wholetranscriptome data, reported as probability of predicted molecular subtype	**PurISTSM, Tempus AI, Inc, Tempus AI, Inc**	eC PA	eC PA	eC PA
0511U	Oncology (solid tumor), tumor cell culture in 3D microenvironment, 36 or more drug panel, reported as tumor response prediction for each drug	**PARIS, Tempus AI, Inc, Tempus AI, Inc**	Not Covered	Not Covered	Not Covered
0512U	Oncology (prostate), augmentative algorithmic analysis of digitized whole-slide imaging of histologic features for microsatellite instability (MSI) status, formalin-fixed paraffinembedded (FFPE) tissue, reported as increased or decreased probability of MSI-high (MSI-H)	**Tempus p-MSI, Tempus AI, Inc**	Not Covered	Not Covered	Not Covered
0513U	Oncology (prostate), augmentative algorithmic analysis of digitized whole-slide imaging of histologic features for microsatellite instability (MSI) and homologous recombination deficiency (HRD) status, formalinfixed	**Tempus p-Prostate, Tempus AI, Inc,**	Not Covered	Not Covered	Not Covered

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
	paraffin-embedded (FFPE) tissue, reported as increased or decreased probability of each biomarker				
0516U	Drug metabolism, whole blood, pharmacogenomic genotyping of 40 genes and CYP2D6 copy number variant analysis, reported as metabolizer status	**MyGenVar Pharmacogenomics Test; Geisinger Medical Laboratories**	eC PA	eC PA	eC PA
0523U	Oncology (solid tumor), DNA, qualitative, next-generation sequencing (NGS) of single nucleotide variants (SNV) and insertion/deletions in 22 genes utilizing formalin-fixed paraffin embedded tissue, reported as presence or absence of mutation(s), location of mutation(s), nucleotide change, and amino acid change	**oncoReveal CDx, Pillar Biosciences, Inc**	eC PA	eC PA	eC PA
0529U	Hematology (venous thromboembolism [VTE]), genome-wide single-nucleotide polymorphism variants, including F2 and F5 gene analysis, and Leiden variant, by microarray analysis, saliva, report as risk score for VTE	**Lifetime Genomics Risk Assessment, VTE, GenomicMD, Inc**	eC PA	eC PA	eC PA
0530U	Oncology (pan-solid tumor), ctDNA, utilizing plasma, next generation sequencing (NGS) of 77 genes, 8 fusions, microsatellite instability, and tumor mutation burden, interpretative report for single-nucleotide variants, copy number alterations, with therapy association	**LiquidHALLMARK® (Lucence Health, Inc)**	eC PA	eC PA	eC PA
0532U	Rare diseases (constitutional disease/hereditary disorders), rapid whole genome and mitochondrial DNA sequencing for single-nucleotide variants, insertions/deletions, copy number variations, peripheral blood, buffy coat, saliva, buccal or tissue sample, results reported as positive or negative	**Rapid Genome Sequencing Test, University of California San Francisco Genomic Medicine Laboratory**	Not Covered	Not Covered	Not Covered
0533U	Drug metabolism (adverse drug reactions and drug response), genotyping of 16 genes (ie, ABCG2, CYP2B6, CYP2C9, CYP2C19, CYP2C, CYP2D6, CYP3A5, CYP4F2, DPYD, G6PD, GGCX, NUDT15, SLCO1B1, TPMT, UGT1A1, VKORC1), reported as metabolizer status and transporter function	**UCSF Pharmacogenomics Panel, University of California San Francisco Genomic**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
		Medicine Laboratory			
0534U	Oncology (prostate), microRNA, single-nucleotide polymorphisms (SNPs) analysis by RT-PCR of 32 variants, using buccal swab, algorithm reported as a risk score	**PROSTOX ultra, MiraDx**	eC PA	eC PA	eC PA
0536U	Red blood cell antigen (fetal RhD), PCR analysis of exon 4 of RHD gene and housekeeping control gene GAPDH from whole blood in pregnant individuals at 10+ weeks gestation known to be RhD negative, reported as fetal RhD status	**Prenatal Detect RhD, Devyser Genomic Laboratories**	eC PA	eC PA	eC PA
0537U	Oncology (colorectal cancer), analysis of cell-free DNA for epigenomic patterns, next-generation sequencing, >2500 differentially methylated regions (DMRs), plasma, algorithm reported as positive or negative	**Shield, Guardant Health, Inc**	eC PA	eC PA	eC PA
0538U	Oncology (solid tumor), next-generation targeted sequencing analysis, formalin-fixed paraffin-embedded (FFPE) tumor tissue, DNA analysis of 600 genes, interrogation for single-nucleotide variants, insertions/deletions, gene rearrangements, and copy number alterations, microsatellite instability, tumor mutation burden, reported as actionable variant	**PredicineATLAS Assay, Predicine Inc,**	eC PA	eC PA	eC PA
0539U	Oncology (solid tumor), cell-free circulating tumor DNA (ctDNA), 152 genes, next-generation sequencing, interrogation for single-nucleotide variants, insertions/deletions, gene rearrangements, copy number alterations, and microsatellite instability, using whole-blood samples, mutations with clinical actionability reported as actionable variant	**PredicineCARE Assay, Predicine Inc,**	eC PA	eC PA	eC PA
0540U	Transplantation medicine, quantification of donor-derived cell-free DNA using next-generation sequencing analysis of plasma, reported as percentage of donor-derived cell-free DNA to determine probability of rejection	**AlloSure®, CareDx® Laboratory,**	eC PA	eC PA	eC PA
0543U	Oncology (solid tumor), next-generation sequencing of DNA from formalin-fixed paraffin-embedded (FFPE) tissue of 517 genes, interrogation for single-nucleotide variants, multi-nucleotide variants, insertions and deletions from DNA, fusions in 24 genes and	**TruSight Oncology Comprehensive, Illumina, Inc**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
	splice variants in 1 gene from RNA, and tumor mutation burden				
0544U	Nephrology (transplant monitoring), 48 variants by digital PCR, using cell-free DNA from plasma, donor-derived cell-free DNA, percentage reported as risk for rejection	**VitaGraft Kidney 2.0, Oncocyte Corporation**	eC PA	eC PA	eC PA
0549U	Oncology (urothelial), DNA, quantitative methylated real-time PCR of TRNA-Cys, SIM2, and NKX1-1, using urine, diagnostic algorithm reported as a probability index for bladder cancer and/or upper tract urothelial carcinoma (UTUC)	**Bladder CARE, Pangea Laboratory LLC,**	eC PA	eC PA	eC PA
0552U	Reproductive medicine (preimplantation genetic assessment), analysis for known genetic disorders from trophectoderm biopsy, linkage analysis of disease-causing locus, and when possible, targeted mutation analysis for known familial variant, reported as low-risk or high-risk for familial genetic disorder	**PGT-M, Igenomix®, Part of Vitrolife GroupTM, Igenomix**	eC PA	eC PA	eC PA
0553U	Reproductive medicine (preimplantation genetic assessment), analysis of 24 chromosomes using DNA genomic sequence analysis from embryonic trophectoderm for structural rearrangements, aneuploidy, and a mitochondrial DNA score, results reported as normal/balanced (euploidy/balanced), unbalanced structural rearrangement, monosomy, trisomy, segmental aneuploidy, or mosaic, per embryo tested	**Smart PGT-A Plus, Igenomix®, Part of Vitrolife GroupTM, Thermo Fisher Scientific**	eC PA	eC PA	eC PA
0554U	Reproductive medicine (preimplantation genetic assessment), analysis of 24 chromosomes using DNA genomic sequence analysis from trophectoderm biopsy for aneuploidy, ploidy, a mitochondrial DNA score, and embryo quality control, results reported as normal (euploidy), monosomy, trisomy, segmental aneuploidy, triploid, haploid, or mosaic, with quality control results reported as contamination detected or inconsistent cohort when applicable, per embryo tested	**Smart PGT-SR, Igenomix®, Part of Vitrolife GroupTM, Thermo Fisher Scientific**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0555U	Reproductive medicine (preimplantation genetic assessment), analysis of 24 chromosomes using DNA genomic sequence analysis from embryonic trophectoderm for structural rearrangements, aneuploidy, ploidy, a mitochondrial DNA score, and embryo quality control, results reported as normal/balanced (euploidy/balanced), unbalanced structural rearrangement, monosomy, trisomy, segmental aneuploidy, triploid, haploid, or mosaic, with quality control results reported as contamination detected or inconsistent cohort when applicable, per embryo tested	**Smart PGT-SR Plus, Igenomix®, Part of Vitrolife GroupTM, Thermo Fisher Scientific**	eC PA	eC PA	eC PA
0560U	Oncology (minimal residual disease [MRD]), genomic sequence analysis, cell-free DNA, whole blood and tumor tissue, baseline assessment for design and construction of a personalized variant panel to evaluate current MRD and for comparison to subsequent MRD assessments	**Haystack MRDTM Baseline, Quest Diagnostics®, Quest Diagnostics®**	eC PA	eC PA	eC PA
0561U	Oncology (minimal residual disease [MRD]), genomic sequence analysis, cell-free DNA, whole blood, subsequent assessment with comparison to initial assessment to evaluate for MRD	**Haystack MRDTM Baseline, Quest Diagnostics®, Quest Diagnostics®**	eC PA	eC PA	eC PA
0562U	Oncology (solid tumor), targeted genomic sequence analysis, 33 genes, detection of single-nucleotide variants (SNVs), insertions and deletions, copy-number amplifications, and translocations in human genomic circulating cell-free DNA, plasma, reported as presence of actionable variants	**PGDx elioTM plasma focus Dx, Personal Genome Diagnostics Inc**	eC PA	eC PA	eC PA
0565U	Oncology (hepatocellular carcinoma), next-generation sequencing methylation pattern assay to detect 6626 epigenetic alterations, cell-free DNA, plasma, algorithm reported as cancer signal detected or not detected	**EarlyDx MethylScanTM HCC, EarlyDiagnostics Laboratory, EarlyDiagnostics, Inc**	eC PA	eC PA	eC PA
0566U	Oncology (lung), qPCR-based analysis of 13 differentially methylated regions (CCDC181, HOXA7, LRRC8A, MARCHF11, MIR129-2, NCOR2, PANTR1, PRKCB, SLC9A3, TBR1_2, TRAP1, VWC2, ZNF781), pleural fluid, algorithm reported as a qualitative result	**EPISEEKTM MPE (Malignant Pleural Effusion Detection Test), Precision Epigenomics Inc**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0567U	Rare diseases (constitutional/heritable disorders), whole-genome sequence analysis combination of short and long reads, for single-nucleotide variants, insertions/deletions and characterized intronic variants, copy-number variants, duplications/deletions, mobile element insertions, runs of homozygosity, aneuploidy, and inversions, mitochondrial DNA sequence and deletions, short tandem repeat genes, methylation status of selected regions, blood, saliva, amniocentesis, chorionic villus sample or tissue, identification and categorization of genetic variants	**Genomic Unity® 2.0, Variantyx Inc, Variantyx Inc**	eC PA	eC PA	eC PA
0569U	Oncology (solid tumor), next-generation sequencing analysis of tumor methylation markers (>20000 differentially methylated regions) present in cell-free circulating tumor DNA (ctDNA), whole blood, algorithm reported as presence or absence of ctDNA with tumor fraction, if appropriate	**Guardant RevealTM, Guardant Health, Inc,**	eC PA	eC PA	eC PA
0571U	Oncology (solid tumor), DNA (80 genes) and RNA (10 genes), by next-generation sequencing, plasma, including single-nucleotide variants, insertions/deletions, copy-number alterations, microsatellite instability, and fusions, reported as clinically actionable variants	**LiquidHALLMARK® ctDNA and ctRNA, Lucence Health, Inc, Lucence Health, Inc**	eC PA	eC PA	eC PA
0572U	Oncology (prostate), high-throughput telomere length quantification by FISH, whole blood, diagnostic algorithm reported as risk of prostate cancer	**ProsTAV®, Life Length S.L., Life Length S.L.**	eC PA	eC PA	eC PA
0575U	Transplantation medicine (liver allograft rejection), miRNA gene expression profiling by RT-PCR of 4 genes (miR-122, miR-885, miR-23a housekeeping, spike-in control), serum, algorithm reported as risk of liver allograft rejection	**HepatoTrack™, LuminoDx Laboratory, LuminoDx Inc**	eC PA	eC PA	eC PA
0576U	Transplantation medicine (liver allograft rejection), quantitative donor-derived cell-free DNA (cfDNA) by whole genome next-generation sequencing, plasma and mRNA gene expression profiling by multiplex real-time PCR of 56 genes, whole blood, combined algorithm reported as a rejection risk score	**OmniGraf® Liver, Eurofins Transplant Genomics, LLC, Eurofins Transplant Genomics, LLC**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0578U	Oncology (cutaneous melanoma), RNA, gene expression profiling by real-time qPCR of 10 genes (8 content and 2 housekeeping), utilizing formalin-fixed paraffin-embedded (FFPE) tissue, algorithm reports a binary result, either low-risk or high-risk for sentinel lymph node metastasis and recurrence	**Merlin™ Test, SkylineDx USA, Inc, SkylineDx USA, Inc**	eC PA	eC PA	eC PA
0582U	Rare diseases (constitutional disease/hereditary disorders), rapid whole genome DNA sequencing for single-nucleotide variants, insertions/deletions, copy number variations, blood, saliva, tissue sample, variants reported	**Rapid Whole Genome Sequencing, Mayo Clinic, Mayo Clinic**	eC PA	eC PA	eC PA
0583U	Rare diseases (constitutional disease/hereditary disorders), rapid whole genome comparator DNA sequencing for single-nucleotide variants, insertions/deletions, copy number variations, blood, saliva, tissue sample, variants reported with proband results (List separately in addition to code for primary procedure)	**Rapid Genome Sequencing Family Member Comparator, Mayo Clinic**	eC PA	eC PA	eC PA
0585U	Targeted genomic sequence analysis panel, solid organ neoplasm, circulating cell-free DNA (cfDNA) analysis from plasma of 521 genes, interrogation for sequence variants, gene copy number amplifications, gene rearrangements, and microsatellite instability, report shows identified mutations, including variants with clinical actionability	**Labcorp® Plasma Complete™, Labcorp, Laboratory Developed Test**	eC PA	eC PA	eC PA
0586U	Oncology, mRNA, gene expression profiling of 216 genes (204 targeted and 12 housekeeping genes), RNA expression analysis, formalin-fixed paraffin-embedded (FFPE) tissue, quantitative, reported as log2 ratio per gene	**RNA Salah Targeted Expression Panel, Moffitt Cancer Center Advanced Diagnostics Laboratory, Laboratory Developed Test**	eC PA	eC PA	eC PA
0592U	Oncology (hematolymphoid neoplasms), DNA, targeted genomic sequence of 417 genes, interrogation for gene fusions, translocations, rearrangements, utilizing formalin-fixed paraffin-embedded (FFPE) tumor tissue, results report clinically significant variant(s)	**Aventa Lymphoma, Aventa Genomics, LLC**	eC PA	eC PA	eC PA

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
0597U	Oncology (breast), RNA expression profiling of 329 genes by targeted next-generation sequencing and 20 proteins by multiplex immunofluorescence, formalin-fixed paraffin-embedded (FFPE) tissue, algorithmic analyses to determine tumor-recurrence risk score	**AidaBreast™, PreludeDx™, Prelude Corporation**	eC PA	eC PA	eC PA
Other Related Codes					
82172	Apolipoprotein, each		OOS for eC – No PA required	OOS for eC - No PA required	OOS for eC - No PA required
83006	Growth stimulation expressed gene 2 (ST2, Interleukin 1 receptor like-1)		OOS for eC - Not Covered	OOS for eC - Not Covered	OOS for eC - Not Covered
83950	Oncoprotein; HER-2/neu		OOS for eC - No PA required	OOS for eC - No PA required	OOS for eC - No PA required
83951	Oncoprotein; des-gamma-carboxy-prothrombin (DCP)		OOS for eC - Not Covered	OOS for eC - Not Covered	OOS for eC - Not Covered
83993	Calprotectin, fecal		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
84233	Receptor assay; estrogen		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
84234	Receptor assay; progesterone		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
86152	Cell enumeration using immunologic selection and identification in fluid specimen (eg, circulating tumor cells in blood);		OOS for eC - Not Covered	OOS for eC - Not Covered	OOS for eC - Not Covered

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
86153	Cell enumeration using immunologic selection and identification in fluid specimen (eg, circulating tumor cells in blood); physician interpretation and report, when required		OOS for eC - Not Covered	OOS for eC - Not Covered	OOS for eC - Not Covered
86294	Immunoassay for tumor antigen, qualitative or semiquantitative (eg, bladder tumor antigen)	**BTA Stat (Bion Diagnostics)- bladder tumor marker Covered only for dx: • C67.0 – C67.9 Malignant neoplasm of the bladder • D09.0 Carcinoma in situ of bladder • D49.4 Neoplasm of unspecified behavior of bladder Z85.51 Personal history of malignant neoplasm of bladder**	OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
86300	Immunoassay for tumor antigen, quantitative; CA 15-3 (27.29)		OOS for eC - Not Covered	OOS for eC - Not Covered	OOS for eC - Not Covered
86301	Immunoassay for tumor antigen, quantitative; CA 19-9		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
86304	Immunoassay for tumor antigen, quantitative; CA 125		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
86305	Human epididymis protein 4 (HE4)		OOS for eC - Not Covered	OOS for eC - Not Covered	OOS for eC - Not Covered

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
86316	Immunoassay for tumor antigen, other antigen, quantitative (eg, CA 50, 72-4, 549), each		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
86352	Cellular function assay involving stimulation (eg, mitogen or antigen) and detection of biomarker (eg, ATP)		OOS for eC - Not Covered	OOS for eC - Not Covered	OOS for eC - Not Covered
86356	Mononuclear cell antigen, quantitative (eg, flow cytometry), not otherwise specified, each antigen		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
86386	Nuclear Matrix Protein 22 (NMP22), qualitative	**NMP22 (Alere) - bladder tumor marker, Covered only for dx:** **• C67.0 – C67.9 Malignant neoplasm of the bladder** **• D09.0 Carcinoma in situ of bladder** **• D49.4 Neoplasm of unspecified behavior of bladder** **• Z85.51 Personal history of malignant neoplasm of bladder**	OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
87901	Infectious agent genotype analysis by nucleic acid (DNA or RNA); HIV-1, reverse transcriptase and protease regions	**ViroSeq HIV-1 Genotyping System (Abbott Molecular)**	OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
87902	Infectious agent genotype analysis by nucleic acid (DNA or RNA); Hepatitis C virus		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
87906	Infectious agent genotype analysis by nucleic acid (DNA or RNA); HIV-1, other region (eg, integrase, fusion)		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88120	Cytopathology, in situ hybridization (eg, FISH), urinary tract specimen with morphometric analysis, 3-5 molecular probes, each specimen; manual	**bladder tumor marker UroVysion Bladder Cancer Kit (Abbott Molecular) Covered only for dx: • C67.0 – C67.9 Malignant neoplasm of the bladder • D09.0 Carcinoma in situ of bladder • D49.4 Neoplasm of unspecified behavior of bladder • Z85.51 Personal history of malignant neoplasm of bladder**	OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88121	Cytopathology, in situ hybridization (eg, FISH), urinary tract specimen with morphometric analysis, 3-5 molecular probes, each specimen; using computer-assisted technology	**bladder tumor marker UroVysion Bladder Cancer Kit (Abbott Molecular) Covered only for dx: • C67.0 – C67.9 Malignant neoplasm of the bladder • D09.0 Carcinoma in situ of bladder • D49.4 Neoplasm of**	OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
		unspecified behavior of bladder • Z85.51 Personal history of malignant neoplasm of bladder			
88130	Sex chromatin identification; Barr bodies		OOS for eC - Not Covered	OOS for eC - Not Covered	OOS for eC - Not Covered
88182	Flow cytometry, cell cycle or DNA analysis		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88184	Flow cytometry, cell surface, cytoplasmic, or nuclear marker, technical component only; first marker		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88185	Flow cytometry, cell surface, cytoplasmic, or nuclear marker, technical component only; each additional marker (List separately in addition to code for first marker)		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88187	Flow cytometry, interpretation; 2 to 8 markers		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88189	Flow cytometry, interpretation; 16 or more markers		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88230	Tissue culture for non-neoplastic disorders; lymphocyte		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88233	Tissue culture for non-neoplastic disorders; skin or other solid tissue biopsy		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
88235	Tissue culture for non-neoplastic disorders; amniotic fluid or chorionic villus cells		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88237	Tissue culture for neoplastic disorders; bone marrow, blood cells		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88239	Tissue culture for neoplastic disorders; solid tumor		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88240	Cryopreservation, freezing and storage of cells, each cell line		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88241	Thawing and expansion of frozen cells, each aliquot		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88245	Chromosome analysis for breakage syndromes; baseline Sister Chromatid Exchange (SCE), 20-25 cells		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
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)		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88249	Chromosome analysis for breakage syndromes; score 100 cells, clastogen stress (eg, diepoxybutane, mitomycin C, ionizing radiation, UV radiation)		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88261	Chromosome analysis; count 5 cells, 1 karyotype, with banding		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
88262	Chromosome analysis; count 15-20 cells, 2 karyotypes, with banding		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88263	Chromosome analysis; count 45 cells for mosaicism, 2 karyotypes, with banding		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88264	Chromosome analysis; analyze 20-25 cells		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88267	Chromosome analysis, amniotic fluid or chorionic villus, count 15 cells, 1 karyotype, with banding		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88269	Chromosome analysis, in situ for amniotic fluid cells, count cells from 6-12 colonies, 1 karyotype, with banding		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88271	Molecular cytogenetics; DNA probe, each (eg, FISH)		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88272	Molecular cytogenetics; chromosomal in situ hybridization, analyze 3-5 cells (eg, for derivatives and markers)		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88273	Molecular cytogenetics; chromosomal in situ hybridization, analyze 10-30 cells (eg, for microdeletions)		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88274	Molecular cytogenetics; interphase in situ hybridization, analyze 25-99 cells		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
88275	Molecular cytogenetics; interphase in situ hybridization, analyze 100-300 cells		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88280	Chromosome analysis; additional karyotypes, each study		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88283	Chromosome analysis; additional specialized banding technique (eg, NOR, C-banding)		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88285	Chromosome analysis; additional cells counted, each study		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88289	Chromosome analysis; additional high resolution study		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88291	Cytogenetics and molecular cytogenetics, interpretation and report		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88299	Unlisted cytogenetic study	**Explanatory notes identifying specific test must accompany claim**	OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88360	Morphometric analysis, tumor immunohistochemistry (eg, Her-2/neu, estrogen receptor/progesterone receptor), quantitative or semiquantitative, each antibody; manual		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88361	Morphometric analysis, tumor immunohistochemistry (eg, Her-2/neu, estrogen receptor/progesterone receptor), quantitative or semiquantitative, each antibody; using computer-assisted technology		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
88363	Examination and selection of retrieved archival (ie, previously diagnosed) tissue(s) for molecular analysis (eg, KRAS mutational analysis)		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88364	In situ hybridization (eg, FISH), per specimen; each additional single probe stain procedure (List separately in addition to code for primary procedure)		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88365	In situ hybridization (eg, FISH), each probe		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88366	In situ hybridization (eg, FISH), per specimen; each multiplex probe stain procedure		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88367	Morphometric analysis, in situ hybridization (quantitative or semi-quantitative), using computer-assisted technology, per specimen; initial single probe stain procedure		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88368	Morphometric analysis, in situ hybridization (quantitative or semi-quantitative) each probe; manual		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
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)		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
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)		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88374	Morphometric analysis, in situ hybridization (quantitative or semi-quantitative), using computer-assisted technology, per specimen; each multiplex probe stain procedure		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required

CODE	DESCRIPTION	Alias/Test Name (Lab) *list not all inclusive*	COMMERCIAL PLANS	MEDICAID	PRIORITY MEDICARE
88377	Morphometric analysis, in situ hybridization (quantitative or semi-quantitative), manual, per specimen; each multiplex probe stain procedure		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88381	Microdissection (ie, sample preparation of microscopically identified target); manual		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
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)		OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
89240	Unlisted miscellaneous pathology test	**Explanatory notes identifying specific test must accompany claim**	OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
88399	Unlisted surgical pathology procedure	**Explanatory notes identifying specific test must accompany claim**	OOS for eC- No PA required	OOS for eC- No PA required	OOS for eC- No PA required
89290	Biopsy, oocyte polar body or embryo blastomere, microtechnique (for pre-implantation genetic diagnosis); less than or equal to 5 embryos		Covered only with Fertility Rider	Not Covered	Not Covered
89291	Biopsy, oocyte polar body or embryo blastomere, microtechnique (for pre-implantation genetic diagnosis); greater than 5 embryos		Covered only with Fertility Rider	Not Covered	Not Covered
G9143	Warfarin responsiveness testing by genetic technique using any method, any number of specimen(s)		Out of Scope - Not Covered	Out of Scope - Not Covered	eC PA

VI. REFERENCES

For references on tests reviewed according to EviCore guidelines see: Evicore Laboratory Guidelines.

1. ACMG Board of Directors. Points to consider in the clinical application of genomic sequencing. Genet Med. 2012 Aug;14(8):759-61. doi: 10.1038/gim.2012.74
2. Bean LJH, Funke B, Carlston CM, et al. Diagnostic gene sequencing panels: from design to report—a technical standard of the American College of Medical Genetics and Genomics (ACMG). Genet Med. 2020;22(3):453-461. doi: 10.1038/s41436-019-0666-z
3. Michiels S, Koscielny S, Hill C. Prediction of cancer outcome with microarrays: a multiple random validation strategy. Lancet. 2005 Feb 5-11;365(9458):488-92
4. Rehder C, Bean LJH, Bick D, et al. Next-generation sequencing for constitutional variants in the clinical laboratory, 2021 revision: a technical standard of the American College of Medical Genetics and Genomics (ACMG). Genet Med. 2021;23(8):1399-1415. doi: 10.1038/s41436-021-01139-4
5. Roy S, LaFramboise WA, Nikiforov YE, et al. Next-generation sequencing informatics: challenges and strategies for implementation in a clinical environment. Arch Pathol Lab Med. 2016;140(9):958-975.
6. Taylor JC, Martin HC, Lise S, et al. Factors influencing success of clinical genome sequencing across a broad spectrum of disorders. Nature Genet. 2015;47(7):717-20. 726.
7. Varadhachary GR and Raber MN, Cancer of Unknown Primary Site, N Engl J Med 2014; 371:757-765.
8. Yohe, S. et al. (2015). Clinical validation of targeted next-generation sequencing for inherited disorders. Arch. Pathol. Lab. Med. 139, 204–210

Prenatal Testing

9. Bashford MT, Hickey SE, Curry CJ, Toriello HV; American College of Medical Genetics and Genomics (ACMG) Professional Practice and Guidelines Committee. Addendum: ACMG Practice Guideline: lack of evidence for MTHFR polymorphism testing. Genet Med. 2020 Dec;22(12):2125.
10. Bianchi DW, Parker RL, Wentworth J, Madankumar R, Saffer C, Das AF, et al. DNA sequencing versus standard prenatal aneuploidy screening. N Engl J Med. 2014 Feb 27;370(9):799-808.
11. Bianchi DW, Platt LD, Goldberg JD, Abuhamad AZ, Sehnert AJ, Rava RP; MatErnal BLood IS Source to Accurately diagnose fetal aneuploidy (MELISSA) Study Group. Genome-wide fetal aneuploidy detection by maternal plasma DNA sequencing. Obstet Gynecol. 2012 May;119(5):890-901.
12. Brezina PR, Kutteh WH. Clinical applications of preimplantation genetic testing. BMJ. 2015 Feb 19;350:g7611
13. Chitty LS, Mason S, Barrett AN, et al. Non-invasive prenatal diagnosis of achondroplasia and thanatophoric dysplasia: next-generation sequencing allows for

a safer, more accurate, and comprehensive approach. Prenatal Diagnosis. 2015;35(7):656-662.
14. Chiu RW, Akolekar R, Zheng YW, Leung TY, Sun H, Chan KC, et al. Non-invasive prenatal assessment of trisomy 21 by multiplexed maternal plasma DNA sequencing: large scale validity study. BMJ. 2011 Jan 11;342:c7401.
15. Debrock S, Melotte C, Spiessens C, et al. Preimplantation genetic screening for aneuploidy of embryos after in vitro fertilization in women aged at least 35 years: a prospective randomized trial. Fertil Steril. 2010;93(2):364-373.
16. Dhillon RK, Hillman SC, Morris RK, McMullan D, Williams D, Coomarasamy A, Kilby MD. Additional information from chromosomal microarray analysis (CMA) over conventional karyotyping when diagnosing chromosomal abnormalities in miscarriage: a systematic review and meta-analysis. BJOG. 2014 Jan;121(1):11-21.
17. Dondorp W, de Wert G, Bombard Y, Bianchi DW, Bergmann C, Borry P, Chitty LS, Fellmann F, Forzano F, Hall A, Henneman L, Howard HC, Lucassen A, Ormond K,Peterlin B, Radojkovic D, Rogowski W, Soller M, Tibben A, Tranebjærg L, van El CG, Cornel MC. Noninvasive prenatal testing for aneuploidy and beyond: challenges of responsible innovation in prenatal screening. Summary and recommendations. Eur J Hum Genet. 2015 Apr 1.
18. Edwards JG, Feldman G, Goldberg J, Gregg AR, Norton ME, Rose NC, et al. Expanded carrier screening in reproductive medicine-points to consider: a joint statement of the American College of Medical Genetics and Genomics, American College of Obstetricians and Gynecologists, National Society of Genetic Counselors, Perinatal Quality Foundation, and Society for Maternal-Fetal Medicine. Obstet Gynecol. 2015 Mar;125(3):653-662.
19. Ehrich M, Deciu C, Zwiefelhofer T, Tynan JA, Cagasan L, Tim R, et al. Noninvasive detection of fetal trisomy 21 by sequencing of DNA in maternal blood: a study in a clinical setting. Am J Obstet Gynecol. 2011 Mar;204(3):205.e1-11. Epub 2011 Feb 18.
20. Gil MM, Quezada MS, Revello R, Akolekar R, Nicolaides KH. Analysis of cell-free DNA in maternal blood in screening for fetal aneuploidies: updated meta-analysis. Ultrasound Obstet Gynecol. 2015 Mar;45(3):249-66.
21. Grebe TA, Khushf G, Greally JM, Turley P, Foyouzi N, Rabin-Havt S, Berkman BE, Pope K, Vatta M, Kaur S; ACMG Social, Ethical, and Legal Issues Committee. Clinical utility of Page 56 of 60 Medical Coverage Policy: 0514 polygenic risk scores for embryo selection: A points to consider statement of the American College of Medical Genetics and Genomics (ACMG). Genet Med. 2024 Apr;26(4):101052.
22. Gregg AR, Aarabi M, Klugman S, et al. Screening for autosomal recessive and X-linked conditions during pregnancy and preconception: a practice resource of the American College of Medical Genetics and Genomics (ACMG). Genet Med. 2021;23(10):1793-1806.
23. Gregg AR, Skotko BG, Benkendorf JL, Monaghan KG, Bajaj K, Best RG, Klugman S, Watson MS. Noninvasive prenatal screening for fetal aneuploidy, 2016 update: a position statement of the American College of Medical Genetics

and Genomics. Genet Med. 2016 Oct;18(10):1056-65. Malone FD et al. First-trimester or second-trimester screening, or both, for Down's syndrome.N Engl J Med. 2005 Nov 10;353(19):2001-11.

24. Grody WW, Thompson BH, Gregg AR, Bean LH, Monaghan KG, Schneider A, Lebo RV. ACMG position statement on prenatal/preconception expanded carrier screening. Genet Med. 2013 Jun;15(6):482-3.
25. Guha S, Reddi HV, Aarabi M, DiStefano M, Wakeling E, Dungan JS, Gregg AR; ACMG Laboratory Quality Assurance Committee. Laboratory testing for preconception/prenatal carrier screening: A technical standard of the American College of Medical Genetics and Genomics (ACMG). Genet Med. 2024 Jul;26(7):101137.
26. Hillman SC, McMullan DJ, Hall G, et al. Use of prenatal chromosomal microarray: prospective cohort study and systematic review and meta-analysis. Ultrasound Obstet Gynecol. 2013;41(6):610-620.
27. Mazloom AR, Džakula Ž, Oeth P, Wang H, Jensen T, Tynan J, McCullough R, Saldivar JS, Ehrich M, van den Boom D, Bombard AT, Maeder M, McLennan G, Meschino W, Palomaki GE, Canick JA, Deciu C. Noninvasive prenatal detection of sex chromosomal aneuploidies by sequencing circulating cell-free DNA from maternal plasma. Prenat Diagn. 2013 Jun;33(6):591-7.
28. Nicolaides KH, Syngelaki A, Ashoor G, Birdir C, Touzet G. Noninvasive prenatal testing for fetal trisomies in a routinely screened first-trimester population. Am J Obstet Gynecol. 2012 Nov;207(5):374.e1-6.
29. Nicolaides KH, Syngelaki A, Poon LC, Gil MM, Wright D. First-trimester contingent screening for trisomies 21, 18 and 13 by biomarkers and maternal blood cell-free DNA testing. Fetal Diagn Ther. 2014;35:185-92.
30. Norton ME, Brar H, Weiss J, Karimi A, Laurent LC, Caughey AB, et al. Non-Invasive Chromosomal Evaluation (NICE) Study: results of a multicenter prospective cohort study for detection of fetal trisomy 21 and trisomy 18. Am J Obstet Gynecol. 2012 Aug;207(2):137.e1-8.
31. Norton ME, Jacobsson B, Swamy GK, Laurent LC, Ranzini AC, Brar H, et al. Cell-free DNA analysis for noninvasive examination of trisomy. N Engl J Med. 2015 Apr 23;372(17):1589-97.
32. Practice Committees of the American Society for Reproductive Medicine (ASRM) and the Society for Assisted Reproductive Technology (SART). The use of preimplantation genetic testing for aneuploidy: a committee opinion. Fertil Steril. 2024 Sep;122(3):421-434.
33. Saunders CJ, et al. Rapid whole-genome sequencing for genetic disease diagnosis in neonatal intensive care units. Sci Transl Med. 2012 Oct 3;4(154):154ra135. doi: 10.1126/scitranslmed.3004041.
34. Schenk M, Groselj-Strele A, Eberhard K, Feldmeier E, Kastelic D, Cerk S, Weiss G. Impact of polar body biopsy on embryo morphokinetics-back to the roots in preimplantation genetic testing? J Assist Reprod Genet. 2018 Aug;35(8):1521-1528. doi: 10.1007/s10815-018-1207-4. Epub 2018 May 22. PMID: 29790071; PMCID: PMC6086803.

35. Srinivasan A, Bianchi DW, Huang H, Sehnert AJ, Rava RP. Noninvasive detection of fetal subchromosome abnormalities via deep sequencing of maternal plasma. Am J Hum Genet. 2013 Feb 7;92(2):167-76.
36. Staessen C, Platteau P, Van Assche E, et al. Comparison of blastocyst transfer with or without preimplantation genetic diagnosis for aneuploidy screening in couples with advanced maternal age: a prospective randomized controlled trial. Hum Reprod. 2004;19(12):2849-2858.

Whole Genome Sequencing

37. Carss KJ, Arno G, Erwood M, et al. Comprehensive rare variant analysis via whole genome sequencing to determine the molecular pathology of inherited retinal disease. Am J Hum Genet. 2017;100(1):75-90
38. Dimmock D, Caylor S, Waldman B, et al. Project Baby Bear: Rapid precision care incorporating rWGS in 5 California children's hospitals demonstrates improved clinical outcomes and reduced costs of care. Am J Hum Genet. 2021 Jul 1;108(7):1231-1238. doi: 10.1016/j.ajhg.2021.05.008. Epub 2021 Jun 4. PMID: 34089648; PMCID: PMC8322922.
39. Faranes L, et al. Rapid whole-genome sequencing decreases infant morbidity and cost of hospitalization. NPJ Genom Med. 2018 Apr 4; 3:10. doi: 10.1038/s41525-018-0049-4.
40. French CE, Delon I, Dolling H, et al. Whole genome sequencing reveals that genetic conditions are frequent in intensively ill children. *Intensive Care Med*. 2019;45(5):627-636.
41. Green RC, Berg JS, Grody WW, et al. ACMG recommendations for reporting of incidental findings in clinical exome and genome sequencing. Genet Med. Jul 2013;15(7):565-574. PMID 23788249
42. Gilissen C, Hehir-Kwa JY, Thung DT, et al. Genome sequencing identifies major causes of severe intellectual disability. Nature. 2014;511(7509):344-347.
43. Kingsmore SF, Cakici JA, Clark MM, et al. A randomized, controlled trial of the analytic and diagnostic performance of singleton and trio, rapid genome and exome sequencing in ill infants. Am J Hum Genet. 2019;105(4):719-733.
44. Malinowski J, Miller DT, Demmer L, et al. Systematic evidence-based review: outcomes from exome and genome sequencing for pediatric patients with congenital anomalies or intellectual disability. Genet Med. 2020;22(6):986-1004. doi: 10.1038/s41436-020-0771-z
45. Michigan Legislature. Right to Try Act. Act 345 of 2014. https://www.legislature.mi.gov/documents/mcl/pdf/mcl-Act-345-of-2014.pdf
46. Miller NA, et al. A 26-hour system of highly sensitive whole genome sequencing for emergency management of genetic diseases. Genome Med. 2015 Sep 30; 7:100. doi: 10.1186/s13073-015-0221-8.
47. National Society of Genetic Counselors. Position statement: Use of multigene panel tests. Released March 2017; Reaffirmed 2023. Available at: https://www.nsgc.org/Policy-Research-and-Publications/Position-Statements/Position-Statements/Post/use-of-multi-gene-panel-tests

48. Odibo AO, Stamilio DM, Nelson DB, Sehdev HM, Macones GA.A cost-effectiveness analysis of prenatal screening strategies for Down syndrome. Obstet Gynecol. 2005 Sep;106(3):562-8. Erratum in: Obstet Gynecol. 2006 Jan;107(1):209
49. Petrikin JE, et al. The NSIGHT1-randomized controlled trial: rapid whole-genome sequencing for accelerated etiologic diagnosis in critically ill infants. NPJ Genom Med. 2018 Feb 9; 3:6. doi: 10.1038/s41525-018-0045-8
50. Sermon K, Van Steirteghem A, Liebaers I. Preimplantation genetic diagnosis. Lancet. 2004 May 15; 363(9421):1633-41.
51. Stavropolos DJ, Merico D, Jobling R, et al. Whole genome sequencing expands diagnostic utility and improves clinical management in pediatric medicine. NPJ Genom Med. 2016;1:15012. doi:10.1038/npjgenmed.2015.12

APPENDIX A	
Conditions for which Genetic Counseling* is required or recommended prior to genetic testing:	
Genetic Counseling Required	**Genetic Counseling Recommended**
Hereditary Cancer Syndromes: including but not limited to BRCA, HNPCC, FAP, MYH, Cowden Syndrome, Li Fraumeni syndrome, Peutz-Jeghers syndrome, Ataxia Telangiectasia	Prenatal screening: serum screening, sequential screening, etc.
Pre-symptomatic testing: familial conditions including but not limited to Huntington's Chorea, Alzheimer's disease	Carrier screening: Individuals from ethnic groups recognized to be at increased risk for specific genetic disorders (e.g., African Americans for sickle cell anemia, Ashkenazi Jewish (eastern European) for Tay-Sachs disease)
Pre-implantation diagnosis: Pre-test discussion on conditions to be tested for.	Diagnostic testing: Tests to confirm or rule out suspected genetic conditions in symptomatic individuals in which confirming a diagnosis has the potential to alter the medical management for the individual, i.e., muscular dystrophy, spinal muscular atrophy, microdeletion syndromes.
Prenatal diagnosis: chorionic villus sampling (CVS), amniocentesis, MaterniT21™ PLUS	Conditions identified by newborn screening
Carrier testing: testing for carrier status when there is a known or suspected genetic condition in the family (i.e., cystic fibrosis carrier testing, Fragile X pre-mutation carrier testing, etc.)	
Pre and post testing of at-risk family members for cardiac conditions in which the proband (individual with specific genetic condition has been identified) has an identifiable mutation i.e., Long QT syndrome, hypertophic cardiomyopathy. Post test counseling for clinically symptomatic individuals.	