

Article - Billing and Coding: Molecular Pathology Procedures (A56199)

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Contractor Information

| CONTRACTOR NAME | CONTRACT TYPE | CONTRACT NUMBER | JURISDICTION | STATES |
|------------------------------------|---------------------|-----------------|--------------|-------------------------|
| National Government Services, Inc. | MAC - Part A | 06101 - MAC A | J - 06 | Illinois |
| National Government Services, Inc. | MAC - Part B | 06102 - MAC B | J - 06 | Illinois |
| National Government Services, Inc. | MAC - Part A | 06201 - MAC A | J - 06 | Minnesota |
| National Government Services, Inc. | MAC - Part B | 06202 - MAC B | J - 06 | Minnesota |
| National Government Services, Inc. | MAC - Part A | 06301 - MAC A | J - 06 | Wisconsin |
| National Government Services, Inc. | MAC - Part B | 06302 - MAC B | J - 06 | Wisconsin |
| National Government Services, Inc. | A and B and HHH MAC | 13101 - MAC A | J - K | Connecticut |
| National Government Services, Inc. | A and B and HHH MAC | 13102 - MAC B | J - K | Connecticut |
| National Government Services, Inc. | A and B and HHH MAC | 13201 - MAC A | J - K | New York - Entire State |
| National Government Services, Inc. | A and B and HHH MAC | 13202 - MAC B | J - K | New York - Downstate |
| National Government Services, Inc. | A and B and HHH MAC | 13282 - MAC B | J - K | New York - Upstate |
| National Government Services, Inc. | A and B and HHH MAC | 13292 - MAC B | J - K | New York - Queens |
| National Government Services, Inc. | A and B and HHH MAC | 14111 - MAC A | J - K | Maine |
| National Government Services, Inc. | A and B and HHH MAC | 14112 - MAC B | J - K | Maine |

| CONTRACTOR NAME | CONTRACT TYPE | CONTRACT NUMBER | JURISDICTION | STATES |
|------------------------------------|---------------------|-----------------|--------------|---------------|
| Inc. | MAC | | | |
| National Government Services, Inc. | A and B and HHH MAC | 14211 - MAC A | J - K | Massachusetts |
| National Government Services, Inc. | A and B and HHH MAC | 14212 - MAC B | J - K | Massachusetts |
| National Government Services, Inc. | A and B and HHH MAC | 14311 - MAC A | J - K | New Hampshire |
| National Government Services, Inc. | A and B and HHH MAC | 14312 - MAC B | J - K | New Hampshire |
| National Government Services, Inc. | A and B and HHH MAC | 14411 - MAC A | J - K | Rhode Island |
| National Government Services, Inc. | A and B and HHH MAC | 14412 - MAC B | J - K | Rhode Island |
| National Government Services, Inc. | A and B and HHH MAC | 14511 - MAC A | J - K | Vermont |
| National Government Services, Inc. | A and B and HHH MAC | 14512 - MAC B | J - K | Vermont |

Article Information

General Information

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CMS National Coverage Policy

N/A

Article Guidance

Article Text

This article contains coding and other guidelines that complement the Local Coverage Determination (LCD) for Molecular Pathology Procedures.

Specific Coding of Molecular Testing Panels

The submission of claims using individual gene CPT codes, when either 5-50 or >50 gene panels are ordered, is considered incorrect coding. Correct coding requires that when a panel code is ordered, it should be billed, rather than the individual gene codes. CPT code 81445, 81449, 81450, or 81451 should be billed when 5 to 50 genes are ordered. CPT code 81455, or 81456, should be billed when 51 or greater genes are ordered for molecular biomarkers. Please refer to Local Coverage Determination L37810 Genomic Sequence Analysis Panels in the Treatment of Solid Organ Neoplasms and the associated Article A56867. When a panel with greater than one or less than five genes is ordered, use the corresponding existing panel CPT code or CPT code 81479 if none exists.

Coding Information

Coding guidance in this article is categorized into four, distinct CPT/HCPCS sections:

- CPT/HCPCS section-Group 1-Tier 1 Covered Codes for which limited coverage may be provided for the genetic tests and for which specific ICD-10-CM diagnosis to CPT procedure groupings may be listed
- CPT/ HCPCS section-Group 2-Tier 1 Codes that require Individual Review for which coverage may be provided for the genetic tests submitted, if documentation supports medical necessity, and for which specific ICD-10-CM diagnosis to CPT procedure groupings may be listed.
- CPT/HCPCS section-Group 3-Tier 1 Non-covered Codes for which genetic testing is unlikely to impact therapeutic decision-making in the clinical management of the patient and will be denied automatically as not medically necessary.
- CPT/HCPCS section-Group 4- Tier 2/NOC Covered Code/Gene Combinations for which limited coverage may be provided for specific genes listed in the Group 4 paragraph; Tier 2/NOC Individual Review Code/Gene Combinations; Tier 2/NOC Non-covered Code/Gene Combinations.

Procedure codes may be subject to National Correct Coding Initiative (NCCI) edits or OPPS packaging edits. Refer to NCCI and OPPS requirements prior to billing Medicare.

For services requiring a referring/ordering physician, the name and NPI of the referring/ordering physician must be reported on the claim.

A claim submitted without a valid ICD-10-CM diagnosis code will be returned to the provider as an incomplete claim under Section 1833(e) of the Social Security Act.

The diagnosis code(s) must best describe the patient's condition for which the service was performed.

Modifier 91

Please use Modifier 91 as appropriate, based on the Medicare Claims Processing Manual Chapter 16, Laboratory Services Section 100.5.1. Modifier 91 may be used *"to indicate that a test was performed more than once on the same day for the same patient., only when it is necessary to obtain multiple results in the course of treatment."*

Documentation Requirements

Documentation must be adequate to verify that coverage guidelines listed above have been met. Thus, the medical record must contain documentation that the testing is expected to influence treatment of the condition toward which the testing is directed. The laboratory or billing provider must have on file the physician requisition which sets forth the diagnosis or condition (ICD-10-CM code) that warrants the test(s).

Examples of documentation requirements of the ordering physician/nonphysician practitioner (NPP) include, but are not limited to, history and physical or exam findings that support the decision making, problems/diagnoses, relevant data (e.g., lab testing, imaging results).

Documentation requirements of the performing laboratory (when requested) include, but are not limited to, lab accreditation, test requisition, test record/procedures, reports (preliminary and final), and quality control record.

Documentation requirements for LDT(s)/protocols (when requested) include diagnostic test/assay, lab/manufacturer, names of comparable assays/services (if relevant), description of assay, analytical validity evidence, clinical validity evidence, and clinical utility.

Providers are required to code to specificity however, if CPT 81479 (unlisted molecular pathology procedure) is used the documentation must clearly identify the unique molecular pathology procedure performed. When multiple procedure codes are submitted on a claim (unique and/or unlisted) the documentation supporting each code should be easily identifiable. If on review the contractor cannot link a billed code to the documentation, these services will be denied based on Title XVIII of the Social Security Act, §1833(e). For these tests, the ordering provider must provide to the laboratory copies of the signed informed consent documentation.

When the documentation does not meet the criteria for the service rendered or the documentation does not establish the medical necessity for the services, such services will be denied as not reasonable and necessary.

Utilization Guidelines

Screening services such as pre-symptomatic genetic tests and services used to detect an undiagnosed disease or

disease predisposition are not a Medicare benefit and are not covered. Similarly, Medicare may not reimburse the costs of tests/examinations that assess the risk of a condition unless the risk assessment clearly and directly affects the management of the patient.

A specific genetic test may only be performed once in a lifetime per beneficiary for inherited conditions; however, when medically reasonable and necessary, genetic testing may be done on acquired conditions such as malignancies (including separate malignancies developing at different times) as they are treated and are being followed, in order to assess response or other relevant clinical criteria. Likewise, there are situations where medical record and literature documentation are able to demonstrate that serial testing can be reasonably predicted to provide additional clinically useful information. When the record documents that this information, such as confirmed significant response to current therapy, is likely to assist in modifying treatment, serial testing can be considered reasonable and necessary and eligible for coverage.

Coding Information

CPT/HCPCS Codes

Group 1 Paragraph:

Tier 1 Covered Codes

Limited coverage may be provided for the genetic tests, submitted under the following CPT codes:

Please refer to the Indications and Limitations of Coverage section (L35000) and the ICD-10-CM diagnosis to CPT procedure groupings below.

Group 1 Codes: (99 Codes)

| CODE | DESCRIPTION |
|-------|---|
| 81120 | IDH1 (ISOCITRATE DEHYDROGENASE 1 [NADP+], SOLUBLE) (EG, GLIOMA), COMMON VARIANTS (EG, R132H, R132C) |
| 81121 | IDH2 (ISOCITRATE DEHYDROGENASE 2 [NADP+], MITOCHONDRIAL) (EG, GLIOMA), COMMON VARIANTS (EG, R140W, R172M) |
| 81162 | BRCA1 (BRCA1, DNA REPAIR ASSOCIATED), BRCA2 (BRCA2, DNA REPAIR ASSOCIATED) (EG, HEREDITARY BREAST AND OVARIAN CANCER) GENE ANALYSIS; FULL SEQUENCE ANALYSIS AND FULL DUPLICATION/DELETION ANALYSIS (IE, DETECTION OF LARGE GENE REARRANGEMENTS) |
| 81163 | BRCA1 (BRCA1, DNA REPAIR ASSOCIATED), BRCA2 (BRCA2, DNA REPAIR ASSOCIATED) (EG, HEREDITARY BREAST AND OVARIAN CANCER) GENE ANALYSIS; FULL SEQUENCE ANALYSIS |
| 81164 | BRCA1 (BRCA1, DNA REPAIR ASSOCIATED), BRCA2 (BRCA2, DNA REPAIR |

| CODE | DESCRIPTION |
|-------|--|
| | ASSOCIATED) (EG, HEREDITARY BREAST AND OVARIAN CANCER) GENE ANALYSIS; FULL DUPLICATION/DELETION ANALYSIS (IE, DETECTION OF LARGE GENE REARRANGEMENTS) |
| 81165 | BRCA1 (BRCA1, DNA REPAIR ASSOCIATED) (EG, HEREDITARY BREAST AND OVARIAN CANCER) GENE ANALYSIS; FULL SEQUENCE ANALYSIS |
| 81166 | BRCA1 (BRCA1, DNA REPAIR ASSOCIATED) (EG, HEREDITARY BREAST AND OVARIAN CANCER) GENE ANALYSIS; FULL DUPLICATION/DELETION ANALYSIS (IE, DETECTION OF LARGE GENE REARRANGEMENTS) |
| 81167 | BRCA2 (BRCA2, DNA REPAIR ASSOCIATED) (EG, HEREDITARY BREAST AND OVARIAN CANCER) GENE ANALYSIS; FULL DUPLICATION/DELETION ANALYSIS (IE, DETECTION OF LARGE GENE REARRANGEMENTS) |
| 81168 | CCND1/IGH (T(11;14)) (EG, MANTLE CELL LYMPHOMA) TRANSLOCATION ANALYSIS, MAJOR BREAKPOINT, QUALITATIVE AND QUANTITATIVE, IF PERFORMED |
| 81170 | ABL1 (ABL PROTO-ONCOGENE 1, NON-RECEPTOR TYROSINE KINASE) (EG, ACQUIRED IMATINIB TYROSINE KINASE INHIBITOR RESISTANCE), GENE ANALYSIS, VARIANTS IN THE KINASE DOMAIN |
| 81175 | ASXL1 (ADDITIONAL SEX COMBS LIKE 1, TRANSCRIPTIONAL REGULATOR) (EG, MYELOYDYSPLASTIC SYNDROME, MYELOPROLIFERATIVE NEOPLASMS, CHRONIC MYELOMONOCYTIC LEUKEMIA), GENE ANALYSIS; FULL GENE SEQUENCE |
| 81176 | ASXL1 (ADDITIONAL SEX COMBS LIKE 1, TRANSCRIPTIONAL REGULATOR) (EG, MYELOYDYSPLASTIC SYNDROME, MYELOPROLIFERATIVE NEOPLASMS, CHRONIC MYELOMONOCYTIC LEUKEMIA), GENE ANALYSIS; TARGETED SEQUENCE ANALYSIS (EG, EXON 12) |
| 81206 | BCR/ABL1 (T(9;22)) (EG, CHRONIC MYELOGENOUS LEUKEMIA) TRANSLOCATION ANALYSIS; MAJOR BREAKPOINT, QUALITATIVE OR QUANTITATIVE |
| 81207 | BCR/ABL1 (T(9;22)) (EG, CHRONIC MYELOGENOUS LEUKEMIA) TRANSLOCATION ANALYSIS; MINOR BREAKPOINT, QUALITATIVE OR QUANTITATIVE |
| 81208 | BCR/ABL1 (T(9;22)) (EG, CHRONIC MYELOGENOUS LEUKEMIA) TRANSLOCATION ANALYSIS; OTHER BREAKPOINT, QUALITATIVE OR QUANTITATIVE |
| 81209 | BLM (BLOOM SYNDROME, RECQ HELICASE-LIKE) (EG, BLOOM SYNDROME) GENE ANALYSIS, 2281DEL6INS7 VARIANT |
| 81210 | BRAF (B-RAF PROTO-ONCOGENE, SERINE/THREONINE KINASE) (EG, COLON CANCER, MELANOMA), GENE ANALYSIS, V600 VARIANT(S) |
| 81212 | BRCA1 (BRCA1, DNA REPAIR ASSOCIATED), BRCA2 (BRCA2, DNA REPAIR ASSOCIATED) (EG, HEREDITARY BREAST AND OVARIAN CANCER) GENE ANALYSIS; 185DEL6, 5385INSC, 6174DELT VARIANTS |
| 81215 | BRCA1 (BRCA1, DNA REPAIR ASSOCIATED) (EG, HEREDITARY BREAST AND OVARIAN CANCER) GENE ANALYSIS; KNOWN FAMILIAL VARIANT |

| CODE | DESCRIPTION |
|-------|---|
| 81216 | BRCA2 (BRCA2, DNA REPAIR ASSOCIATED) (EG, HEREDITARY BREAST AND OVARIAN CANCER) GENE ANALYSIS; FULL SEQUENCE ANALYSIS |
| 81217 | BRCA2 (BRCA2, DNA REPAIR ASSOCIATED) (EG, HEREDITARY BREAST AND OVARIAN CANCER) GENE ANALYSIS; KNOWN FAMILIAL VARIANT |
| 81218 | CEBPA (CCAAT/ENHANCER BINDING PROTEIN [C/EBP], ALPHA) (EG, ACUTE MYELOID LEUKEMIA), GENE ANALYSIS, FULL GENE SEQUENCE |
| 81219 | CALR (CALRETICULIN) (EG, MYELOPROLIFERATIVE DISORDERS), GENE ANALYSIS, COMMON VARIANTS IN EXON 9 |
| 81220 | CFTR (CYSTIC FIBROSIS TRANSMEMBRANE CONDUCTANCE REGULATOR) (EG, CYSTIC FIBROSIS) GENE ANALYSIS; COMMON VARIANTS (EG, ACMG/ACOG GUIDELINES) |
| 81221 | CFTR (CYSTIC FIBROSIS TRANSMEMBRANE CONDUCTANCE REGULATOR) (EG, CYSTIC FIBROSIS) GENE ANALYSIS; KNOWN FAMILIAL VARIANTS |
| 81222 | CFTR (CYSTIC FIBROSIS TRANSMEMBRANE CONDUCTANCE REGULATOR) (EG, CYSTIC FIBROSIS) GENE ANALYSIS; DUPLICATION/DELETION VARIANTS |
| 81223 | CFTR (CYSTIC FIBROSIS TRANSMEMBRANE CONDUCTANCE REGULATOR) (EG, CYSTIC FIBROSIS) GENE ANALYSIS; FULL GENE SEQUENCE |
| 81224 | CFTR (CYSTIC FIBROSIS TRANSMEMBRANE CONDUCTANCE REGULATOR) (EG, CYSTIC FIBROSIS) GENE ANALYSIS; INTRON 8 POLY-T ANALYSIS (EG, MALE INFERTILITY) |
| 81225 | CYP2C19 (CYTOCHROME P450, FAMILY 2, SUBFAMILY C, POLYPEPTIDE 19) (EG, DRUG METABOLISM), GENE ANALYSIS, COMMON VARIANTS (EG, *2, *3, *4, *8, *17) |
| 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) |
| 81227 | CYP2C9 (CYTOCHROME P450, FAMILY 2, SUBFAMILY C, POLYPEPTIDE 9) (EG, DRUG METABOLISM), GENE ANALYSIS, COMMON VARIANTS (EG, *2, *3, *5, *6) |
| 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) |
| 81236 | EZH2 (ENHANCER OF ZESTE 2 POLYCOMB REPRESSIVE COMPLEX 2 SUBUNIT) (EG, MYELODYSPLASTIC SYNDROME, MYELOPROLIFERATIVE NEOPLASMS) GENE ANALYSIS, FULL GENE SEQUENCE |
| 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) |
| 81245 | FLT3 (FMS-RELATED TYROSINE KINASE 3) (EG, ACUTE MYELOID LEUKEMIA), GENE |

| CODE | DESCRIPTION |
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| | ANALYSIS; INTERNAL TANDEM DUPLICATION (ITD) VARIANTS (IE, EXONS 14, 15) |
| 81246 | FLT3 (FMS-RELATED TYROSINE KINASE 3) (EG, ACUTE MYELOID LEUKEMIA), GENE ANALYSIS; TYROSINE KINASE DOMAIN (TKD) VARIANTS (EG, D835, I836) |
| 81256 | HFE (HEMOCHROMATOSIS) (EG, HEREDITARY HEMOCHROMATOSIS) GENE ANALYSIS, COMMON VARIANTS (EG, C282Y, H63D) |
| 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) |
| 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) |
| 81263 | IGH@ (IMMUNOGLOBULIN HEAVY CHAIN LOCUS) (EG, LEUKEMIA AND LYMPHOMA, B-CELL), VARIABLE REGION SOMATIC MUTATION ANALYSIS |
| 81264 | IGK@ (IMMUNOGLOBULIN KAPPA LIGHT CHAIN LOCUS) (EG, LEUKEMIA AND LYMPHOMA, B-CELL), GENE REARRANGEMENT ANALYSIS, EVALUATION TO DETECT ABNORMAL CLONAL POPULATION(S) |
| 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) |
| 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) |
| 81267 | CHIMERISM (ENGRAFTMENT) ANALYSIS, POST TRANSPLANTATION SPECIMEN (EG, HEMATOPOIETIC STEM CELL), INCLUDES COMPARISON TO PREVIOUSLY PERFORMED BASELINE ANALYSES; WITHOUT CELL SELECTION |
| 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 |
| 81270 | JAK2 (JANUS KINASE 2) (EG, MYELOPROLIFERATIVE DISORDER) GENE ANALYSIS, P.VAL617PHE (V617F) VARIANT |
| 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, |

| CODE | DESCRIPTION |
|-------|--|
| | 13, 17, 18) |
| 81273 | KIT (V-KIT HARDY-ZUCKERMAN 4 FELINE SARCOMA VIRAL ONCOGENE HOMOLOG) (EG, MASTOCYTOSIS), GENE ANALYSIS, D816 VARIANT(S) |
| 81275 | KRAS (KIRSTEN RAT SARCOMA VIRAL ONCOGENE HOMOLOG) (EG, CARCINOMA) GENE ANALYSIS; VARIANTS IN EXON 2 (EG, CODONS 12 AND 13) |
| 81276 | KRAS (KIRSTEN RAT SARCOMA VIRAL ONCOGENE HOMOLOG) (EG, CARCINOMA) GENE ANALYSIS; ADDITIONAL VARIANT(S) (EG, CODON 61, CODON 146) |
| 81287 | MGMT (O-6-METHYLGUANINE-DNA METHYLTRANSFERASE) (EG, GLIOBLASTOMA MULTIFORME) PROMOTER METHYLATION ANALYSIS |
| 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 |
| 81305 | MYD88 (MYELOID DIFFERENTIATION PRIMARY RESPONSE 88) (EG, WALDENSTROM'S MACROGLOBULINEMIA, LYMPHOPLASMACYTIC LEUKEMIA) GENE ANALYSIS, P.LEU265PRO (L265P) VARIANT |
| 81307 | PALB2 (PARTNER AND LOCALIZER OF BRCA2) (EG, BREAST AND PANCREATIC CANCER) GENE ANALYSIS; FULL GENE SEQUENCE |
| 81308 | PALB2 (PARTNER AND LOCALIZER OF BRCA2) (EG, BREAST AND PANCREATIC CANCER) GENE ANALYSIS; KNOWN FAMILIAL VARIANT |
| 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) |
| 81310 | NPM1 (NUCLEOPHOSMIN) (EG, ACUTE MYELOID LEUKEMIA) GENE ANALYSIS, EXON 12 VARIANTS |
| 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) |
| 81314 | PDGFRA (PLATELET-DERIVED GROWTH FACTOR RECEPTOR, ALPHA POLYPEPTIDE) (EG, GASTROINTESTINAL STROMAL TUMOR [GIST]), GENE ANALYSIS, TARGETED SEQUENCE ANALYSIS (EG, EXONS 12, 18) |
| 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 |
| 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 |

| CODE | DESCRIPTION |
|-------|--|
| 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) |
| 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) |
| 81335 | TPMT (THIOPURINE S-METHYLTRANSFERASE) (EG, DRUG METABOLISM), GENE ANALYSIS, COMMON VARIANTS (EG, *2, *3) |
| 81338 | MPL (MPL PROTO-ONCOGENE, THROMBOPOIETIN RECEPTOR) (EG, MYELOPROLIFERATIVE DISORDER) GENE ANALYSIS; COMMON VARIANTS (EG, W515A, W515K, W515L, W515R) |
| 81339 | MPL (MPL PROTO-ONCOGENE, THROMBOPOIETIN RECEPTOR) (EG, MYELOPROLIFERATIVE DISORDER) GENE ANALYSIS; SEQUENCE ANALYSIS, EXON 10 |
| 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) |
| 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) |
| 81342 | TRG@ (T CELL ANTIGEN RECEPTOR, GAMMA) (EG, LEUKEMIA AND LYMPHOMA), GENE REARRANGEMENT ANALYSIS, EVALUATION TO DETECT ABNORMAL CLONAL POPULATION(S) |
| 81345 | TERT (TELOMERASE REVERSE TRANSCRIPTASE) (EG, THYROID CARCINOMA, GLIOBLASTOMA MULTIFORME) GENE ANALYSIS, TARGETED SEQUENCE ANALYSIS (EG, PROMOTER REGION) |
| 81347 | SF3B1 (SPLICING FACTOR [3B] SUBUNIT B1) (EG, MYELODYSPLASTIC SYNDROME/ACUTE MYELOID LEUKEMIA) GENE ANALYSIS, COMMON VARIANTS (EG, A672T, E622D, L833F, R625C, R625L) |
| 81348 | SRSF2 (SERINE AND ARGININE-RICH SPLICING FACTOR 2) (EG, MYELODYSPLASTIC SYNDROME, ACUTE MYELOID LEUKEMIA) GENE ANALYSIS, COMMON VARIANTS (EG, P95H, P95L) |
| 81351 | TP53 (TUMOR PROTEIN 53) (EG, LI-FRAUMENI SYNDROME) GENE ANALYSIS; FULL GENE SEQUENCE |
| 81352 | TP53 (TUMOR PROTEIN 53) (EG, LI-FRAUMENI SYNDROME) GENE ANALYSIS; TARGETED SEQUENCE ANALYSIS (EG, 4 ONCOLOGY) |
| 81370 | HLA CLASS I AND II TYPING, LOW RESOLUTION (EG, ANTIGEN EQUIVALENTS); HLA-A, -B, -C, -DRB1/3/4/5, AND -DQB1 |
| 81371 | HLA CLASS I AND II TYPING, LOW RESOLUTION (EG, ANTIGEN EQUIVALENTS); |

| CODE | DESCRIPTION |
|-------|--|
| | HLA-A, -B, AND -DRB1 (EG, VERIFICATION TYPING) |
| 81372 | HLA CLASS I TYPING, LOW RESOLUTION (EG, ANTIGEN EQUIVALENTS); COMPLETE (IE, HLA-A, -B, AND -C) |
| 81373 | HLA CLASS I TYPING, LOW RESOLUTION (EG, ANTIGEN EQUIVALENTS); ONE LOCUS (EG, HLA-A, -B, OR -C), EACH |
| 81374 | HLA CLASS I TYPING, LOW RESOLUTION (EG, ANTIGEN EQUIVALENTS); ONE ANTIGEN EQUIVALENT (EG, B*27), EACH |
| 81375 | HLA CLASS II TYPING, LOW RESOLUTION (EG, ANTIGEN EQUIVALENTS); HLA-DRB1/3/4/5 AND -DQB1 |
| 81376 | HLA CLASS II TYPING, LOW RESOLUTION (EG, ANTIGEN EQUIVALENTS); ONE LOCUS (EG, HLA-DRB1, -DRB3/4/5, -DQB1, -DQA1, -DPB1, OR -DPA1), EACH |
| 81377 | HLA CLASS II TYPING, LOW RESOLUTION (EG, ANTIGEN EQUIVALENTS); ONE ANTIGEN EQUIVALENT, EACH |
| 81378 | HLA CLASS I AND II TYPING, HIGH RESOLUTION (IE, ALLELES OR ALLELE GROUPS), HLA-A, -B, -C, AND -DRB1 |
| 81379 | HLA CLASS I TYPING, HIGH RESOLUTION (IE, ALLELES OR ALLELE GROUPS); COMPLETE (IE, HLA-A, -B, AND -C) |
| 81380 | HLA CLASS I TYPING, HIGH RESOLUTION (IE, ALLELES OR ALLELE GROUPS); ONE LOCUS (EG, HLA-A, -B, OR -C), EACH |
| 81381 | HLA CLASS I TYPING, HIGH RESOLUTION (IE, ALLELES OR ALLELE GROUPS); ONE ALLELE OR ALLELE GROUP (EG, B*57:01P), EACH |
| 81382 | HLA CLASS II TYPING, HIGH RESOLUTION (IE, ALLELES OR ALLELE GROUPS); ONE LOCUS (EG, HLA-DRB1, -DRB3/4/5, -DQB1, -DQA1, -DPB1, OR -DPA1), EACH |
| 81383 | HLA CLASS II TYPING, HIGH RESOLUTION (IE, ALLELES OR ALLELE GROUPS); ONE ALLELE OR ALLELE GROUP (EG, HLA-DQB1*06:02P), EACH |
| 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 |
| 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 |
| 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 |
| 81519 | ONCOLOGY (BREAST), MRNA, GENE EXPRESSION PROFILING BY REAL-TIME RT-PCR |

| CODE | DESCRIPTION |
|-------|---|
| | OF 21 GENES, UTILIZING FORMALIN-FIXED PARAFFIN-EMBEDDED TISSUE, ALGORITHM REPORTED AS RECURRENCE SCORE |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 0027U | JAK2 (JANUS KINASE 2) (EG, MYELOPROLIFERATIVE DISORDER) GENE ANALYSIS, TARGETED SEQUENCE ANALYSIS EXONS 12-15 |
| 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) |

Group 2 Paragraph:

Tier 1 Individual Review Codes

Coverage may be provided for the genetic tests submitted under the following Tier 1 CPT codes, if documentation supports medical necessity:

Please refer to the Indications and Limitations of Coverage section (L35000) and the ICD-10-CM diagnosis to CPT procedure groupings below. Not all procedure codes have related diagnosis codes listed.

Group 2 Codes: (52 Codes)

| CODE | DESCRIPTION |
|-------|---|
| 81177 | ATN1 (ATROPHIN 1) (EG, DENTATORUBRAL-PALLIDOLUYSIAN ATROPHY) GENE ANALYSIS, EVALUATION TO DETECT ABNORMAL (EG, EXPANDED) ALLELES |
| 81178 | ATXN1 (ATAXIN 1) (EG, SPINOCEREBELLAR ATAXIA) GENE ANALYSIS, EVALUATION TO DETECT ABNORMAL (EG, EXPANDED) ALLELES |
| 81179 | ATXN2 (ATAXIN 2) (EG, SPINOCEREBELLAR ATAXIA) GENE ANALYSIS, EVALUATION TO DETECT ABNORMAL (EG, EXPANDED) ALLELES |
| 81180 | ATXN3 (ATAXIN 3) (EG, SPINOCEREBELLAR ATAXIA, MACHADO-JOSEPH DISEASE) GENE ANALYSIS, EVALUATION TO DETECT ABNORMAL (EG, EXPANDED) ALLELES |
| 81181 | ATXN7 (ATAXIN 7) (EG, SPINOCEREBELLAR ATAXIA) GENE ANALYSIS, EVALUATION TO DETECT ABNORMAL (EG, EXPANDED) ALLELES |
| 81182 | ATXN8OS (ATXN8 OPPOSITE STRAND [NON-PROTEIN CODING]) (EG, SPINOCEREBELLAR ATAXIA) GENE ANALYSIS, EVALUATION TO DETECT ABNORMAL (EG, EXPANDED) ALLELES |
| 81183 | ATXN10 (ATAXIN 10) (EG, SPINOCEREBELLAR ATAXIA) GENE ANALYSIS, EVALUATION TO DETECT ABNORMAL (EG, EXPANDED) ALLELES |
| 81184 | CACNA1A (CALCIUM VOLTAGE-GATED CHANNEL SUBUNIT ALPHA1 A) (EG, SPINOCEREBELLAR ATAXIA) GENE ANALYSIS; EVALUATION TO DETECT ABNORMAL (EG, EXPANDED) ALLELES |
| 81185 | CACNA1A (CALCIUM VOLTAGE-GATED CHANNEL SUBUNIT ALPHA1 A) (EG, SPINOCEREBELLAR ATAXIA) GENE ANALYSIS; FULL GENE SEQUENCE |
| 81186 | CACNA1A (CALCIUM VOLTAGE-GATED CHANNEL SUBUNIT ALPHA1 A) (EG, SPINOCEREBELLAR ATAXIA) GENE ANALYSIS; KNOWN FAMILIAL VARIANT |
| 81187 | CNBP (CCHC-TYPE ZINC FINGER NUCLEIC ACID BINDING PROTEIN) (EG, MYOTONIC DYSTROPHY TYPE 2) GENE ANALYSIS, EVALUATION TO DETECT ABNORMAL (EG, EXPANDED) ALLELES |
| 81188 | CSTB (CYSTATIN B) (EG, UNVERRICHT-LUNDBORG DISEASE) GENE ANALYSIS; EVALUATION TO DETECT ABNORMAL (EG, EXPANDED) ALLELES |
| 81189 | CSTB (CYSTATIN B) (EG, UNVERRICHT-LUNDBORG DISEASE) GENE ANALYSIS; FULL GENE SEQUENCE |
| 81190 | CSTB (CYSTATIN B) (EG, UNVERRICHT-LUNDBORG DISEASE) GENE ANALYSIS; KNOWN FAMILIAL VARIANT(S) |
| 81191 | NTRK1 (NEUROTROPHIC RECEPTOR TYROSINE KINASE 1) (EG, SOLID TUMORS) TRANSLOCATION ANALYSIS |
| 81192 | NTRK2 (NEUROTROPHIC RECEPTOR TYROSINE KINASE 2) (EG, SOLID TUMORS) TRANSLOCATION ANALYSIS |
| 81193 | NTRK3 (NEUROTROPHIC RECEPTOR TYROSINE KINASE 3) (EG, SOLID TUMORS) |

| CODE | DESCRIPTION |
|-------|---|
| | TRANSLOCATION ANALYSIS |
| 81194 | NTRK (NEUROTROPHIC RECEPTOR TYROSINE KINASE 1, 2, AND 3) (EG, SOLID TUMORS) TRANSLOCATION ANALYSIS |
| 81233 | BTK (BRUTON'S TYROSINE KINASE) (EG, CHRONIC LYMPHOCYTIC LEUKEMIA) GENE ANALYSIS, COMMON VARIANTS (EG, C481S, C481R, C481F) |
| 81277 | CYTOGENOMIC NEOPLASIA (GENOME-WIDE) MICROARRAY ANALYSIS, INTERROGATION OF GENOMIC REGIONS FOR COPY NUMBER AND LOSS-OF-HETEROZYGOSITY VARIANTS FOR CHROMOSOMAL ABNORMALITIES |
| 81288 | MLH1 (MUTL HOMOLOG 1, COLON CANCER, NONPOLYPOSIS TYPE 2) (EG, HEREDITARY NON-POLYPOSIS COLORECTAL CANCER, LYNCH SYNDROME) GENE ANALYSIS; PROMOTER METHYLATION ANALYSIS |
| 81292 | MLH1 (MUTL HOMOLOG 1, COLON CANCER, NONPOLYPOSIS TYPE 2) (EG, HEREDITARY NON-POLYPOSIS COLORECTAL CANCER, LYNCH SYNDROME) GENE ANALYSIS; FULL SEQUENCE ANALYSIS |
| 81293 | MLH1 (MUTL HOMOLOG 1, COLON CANCER, NONPOLYPOSIS TYPE 2) (EG, HEREDITARY NON-POLYPOSIS COLORECTAL CANCER, LYNCH SYNDROME) GENE ANALYSIS; KNOWN FAMILIAL VARIANTS |
| 81294 | MLH1 (MUTL HOMOLOG 1, COLON CANCER, NONPOLYPOSIS TYPE 2) (EG, HEREDITARY NON-POLYPOSIS COLORECTAL CANCER, LYNCH SYNDROME) GENE ANALYSIS; DUPLICATION/DELETION VARIANTS |
| 81295 | MSH2 (MUTS HOMOLOG 2, COLON CANCER, NONPOLYPOSIS TYPE 1) (EG, HEREDITARY NON-POLYPOSIS COLORECTAL CANCER, LYNCH SYNDROME) GENE ANALYSIS; FULL SEQUENCE ANALYSIS |
| 81296 | MSH2 (MUTS HOMOLOG 2, COLON CANCER, NONPOLYPOSIS TYPE 1) (EG, HEREDITARY NON-POLYPOSIS COLORECTAL CANCER, LYNCH SYNDROME) GENE ANALYSIS; KNOWN FAMILIAL VARIANTS |
| 81297 | MSH2 (MUTS HOMOLOG 2, COLON CANCER, NONPOLYPOSIS TYPE 1) (EG, HEREDITARY NON-POLYPOSIS COLORECTAL CANCER, LYNCH SYNDROME) GENE ANALYSIS; DUPLICATION/DELETION VARIANTS |
| 81298 | MSH6 (MUTS HOMOLOG 6 [E. COLI]) (EG, HEREDITARY NON-POLYPOSIS COLORECTAL CANCER, LYNCH SYNDROME) GENE ANALYSIS; FULL SEQUENCE ANALYSIS |
| 81299 | MSH6 (MUTS HOMOLOG 6 [E. COLI]) (EG, HEREDITARY NON-POLYPOSIS COLORECTAL CANCER, LYNCH SYNDROME) GENE ANALYSIS; KNOWN FAMILIAL VARIANTS |
| 81300 | MSH6 (MUTS HOMOLOG 6 [E. COLI]) (EG, HEREDITARY NON-POLYPOSIS COLORECTAL CANCER, LYNCH SYNDROME) GENE ANALYSIS; DUPLICATION/DELETION VARIANTS |
| 81306 | NUDT15 (NUDIX HYDROLASE 15) (EG, DRUG METABOLISM) GENE ANALYSIS, |

| CODE | DESCRIPTION |
|-------|---|
| | COMMON VARIANT(S) (EG, *2, *3, *4, *5, *6) |
| 81312 | PABPN1 (POLY[A] BINDING PROTEIN NUCLEAR 1) (EG, OCULOPHARYNGEAL MUSCULAR DYSTROPHY) GENE ANALYSIS, EVALUATION TO DETECT ABNORMAL (EG, EXPANDED) ALLELES |
| 81317 | PMS2 (POSTMEIOTIC SEGREGATION INCREASED 2 [S. CEREVISIAE]) (EG, HEREDITARY NON-POLYPOSIS COLORECTAL CANCER, LYNCH SYNDROME) GENE ANALYSIS; FULL SEQUENCE ANALYSIS |
| 81318 | PMS2 (POSTMEIOTIC SEGREGATION INCREASED 2 [S. CEREVISIAE]) (EG, HEREDITARY NON-POLYPOSIS COLORECTAL CANCER, LYNCH SYNDROME) GENE ANALYSIS; KNOWN FAMILIAL VARIANTS |
| 81319 | PMS2 (POSTMEIOTIC SEGREGATION INCREASED 2 [S. CEREVISIAE]) (EG, HEREDITARY NON-POLYPOSIS COLORECTAL CANCER, LYNCH SYNDROME) GENE ANALYSIS; DUPLICATION/DELETION VARIANTS |
| 81320 | PLCG2 (PHOSPHOLIPASE C GAMMA 2) (EG, CHRONIC LYMPHOCYTIC LEUKEMIA) GENE ANALYSIS, COMMON VARIANTS (EG, R665W, S707F, L845F) |
| 81321 | PTEN (PHOSPHATASE AND TENSIN HOMOLOG) (EG, COWDEN SYNDROME, PTEN HAMARTOMA TUMOR SYNDROME) GENE ANALYSIS; FULL SEQUENCE ANALYSIS |
| 81322 | PTEN (PHOSPHATASE AND TENSIN HOMOLOG) (EG, COWDEN SYNDROME, PTEN HAMARTOMA TUMOR SYNDROME) GENE ANALYSIS; KNOWN FAMILIAL VARIANT |
| 81323 | PTEN (PHOSPHATASE AND TENSIN HOMOLOG) (EG, COWDEN SYNDROME, PTEN HAMARTOMA TUMOR SYNDROME) GENE ANALYSIS; DUPLICATION/DELETION VARIANT |
| 81333 | TGFB1 (TRANSFORMING GROWTH FACTOR BETA-INDUCED) (EG, CORNEAL DYSTROPHY) GENE ANALYSIS, COMMON VARIANTS (EG, R124H, R124C, R124L, R555W, R555Q) |
| 81343 | PPP2R2B (PROTEIN PHOSPHATASE 2 REGULATORY SUBUNIT BBETA) (EG, SPINOCEREBELLAR ATAXIA) GENE ANALYSIS, EVALUATION TO DETECT ABNORMAL (EG, EXPANDED) ALLELES |
| 81344 | TBP (TATA BOX BINDING PROTEIN) (EG, SPINOCEREBELLAR ATAXIA) GENE ANALYSIS, EVALUATION TO DETECT ABNORMAL (EG, EXPANDED) ALLELES |
| 81353 | TP53 (TUMOR PROTEIN 53) (EG, LI-FRAUMENI SYNDROME) GENE ANALYSIS; KNOWN FAMILIAL VARIANT |
| 81357 | U2AF1 (U2 SMALL NUCLEAR RNA AUXILIARY FACTOR 1) (EG, MYELODYSPLASTIC SYNDROME, ACUTE MYELOID LEUKEMIA) GENE ANALYSIS, COMMON VARIANTS (EG, S34F, S34Y, Q157R, Q157P) |
| 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) |

| CODE | DESCRIPTION |
|-------|--|
| 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 |
| 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 |
| 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 |
| 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 |
| 81542 | ONCOLOGY (PROSTATE), MRNA, MICROARRAY GENE EXPRESSION PROFILING OF 22 CONTENT GENES, UTILIZING FORMALIN-FIXED PARAFFIN-EMBEDDED TISSUE, ALGORITHM REPORTED AS METASTASIS RISK SCORE |
| 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]) |
| 81599 | UNLISTED MULTIANALYTE ASSAY WITH ALGORITHMIC ANALYSIS |

Group 3 Paragraph:

Tier 1 Non-covered Codes

Genetic testing procedures submitted under the following CPT codes are unlikely to impact therapeutic decision-making in the clinical management of the patient and will be denied automatically as not medically necessary:

Group 3 Codes: (119 Codes)

| CODE | DESCRIPTION |
|---------------|---|
| 81105 - 81112 | 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 |

| CODE | DESCRIPTION |
|-------|---|
| | ANALYSIS, COMMON VARIANT, HPA-1A/B (L33P) - 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) |
| 81161 | DMD (DYSTROPHIN) (EG, DUCHENNE/BECKER MUSCULAR DYSTROPHY) DELETION ANALYSIS, AND DUPLICATION ANALYSIS, IF PERFORMED |
| 81171 | AFF2 (ALF TRANSCRIPTION ELONGATION FACTOR 2 [FMR2]) (EG, FRAGILE X INTELLECTUAL DISABILITY 2 [FRAXE]) GENE ANALYSIS; EVALUATION TO DETECT ABNORMAL (EG, EXPANDED) ALLELES |
| 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) |
| 81173 | AR (ANDROGEN RECEPTOR) (EG, SPINAL AND BULBAR MUSCULAR ATROPHY, KENNEDY DISEASE, X CHROMOSOME INACTIVATION) GENE ANALYSIS; FULL GENE SEQUENCE |
| 81174 | AR (ANDROGEN RECEPTOR) (EG, SPINAL AND BULBAR MUSCULAR ATROPHY, KENNEDY DISEASE, X CHROMOSOME INACTIVATION) GENE ANALYSIS; KNOWN FAMILIAL VARIANT |
| 81200 | ASPA (ASPARTOACYLASE) (EG, CANAVAN DISEASE) GENE ANALYSIS, COMMON VARIANTS (EG, E285A, Y231X) |
| 81201 | APC (ADENOMATOUS POLYPOSIS COLI) (EG, FAMILIAL ADENOMATOSIS POLYPOSIS [FAP], ATTENUATED FAP) GENE ANALYSIS; FULL GENE SEQUENCE |
| 81202 | APC (ADENOMATOUS POLYPOSIS COLI) (EG, FAMILIAL ADENOMATOSIS POLYPOSIS [FAP], ATTENUATED FAP) GENE ANALYSIS; KNOWN FAMILIAL VARIANTS |
| 81203 | APC (ADENOMATOUS POLYPOSIS COLI) (EG, FAMILIAL ADENOMATOSIS POLYPOSIS [FAP], ATTENUATED FAP) GENE ANALYSIS; DUPLICATION/DELETION VARIANTS |
| 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) |
| 81205 | BCKDHB (BRANCHED-CHAIN KETO ACID DEHYDROGENASE E1, BETA POLYPEPTIDE) (EG, MAPLE SYRUP URINE DISEASE) GENE ANALYSIS, COMMON VARIANTS (EG, R183P, G278S, E422X) |
| 81228 | CYTOGENOMIC (GENOME-WIDE) ANALYSIS FOR CONSTITUTIONAL CHROMOSOMAL ABNORMALITIES; INTERROGATION OF GENOMIC REGIONS FOR COPY NUMBER VARIANTS, COMPARATIVE GENOMIC HYBRIDIZATION [CGH] MICROARRAY ANALYSIS |
| 81229 | CYTOGENOMIC (GENOME-WIDE) ANALYSIS FOR CONSTITUTIONAL CHROMOSOMAL ABNORMALITIES; INTERROGATION OF GENOMIC REGIONS FOR COPY NUMBER AND SINGLE NUCLEOTIDE POLYMORPHISM (SNP) VARIANTS, COMPARATIVE GENOMIC |

| CODE | DESCRIPTION |
|-------|---|
| | HYBRIDIZATION (CGH) MICROARRAY ANALYSIS |
| 81230 | CYP3A4 (CYTOCHROME P450 FAMILY 3 SUBFAMILY A MEMBER 4) (EG, DRUG METABOLISM), GENE ANALYSIS, COMMON VARIANT(S) (EG, *2, *22) |
| 81231 | CYP3A5 (CYTOCHROME P450 FAMILY 3 SUBFAMILY A MEMBER 5) (EG, DRUG METABOLISM), GENE ANALYSIS, COMMON VARIANTS (EG, *2, *3, *4, *5, *6, *7) |
| 81232 | DPYD (DIHYDROPYRIMIDINE DEHYDROGENASE) (EG, 5-FLUOROURACIL/5-FU AND CAPECITABINE DRUG METABOLISM), GENE ANALYSIS, COMMON VARIANT(S) (EG, *2A, *4, *5, *6) |
| 81234 | DMPK (DM1 PROTEIN KINASE) (EG, MYOTONIC DYSTROPHY TYPE 1) GENE ANALYSIS; EVALUATION TO DETECT ABNORMAL (EXPANDED) ALLELES |
| 81238 | F9 (COAGULATION FACTOR IX) (EG, HEMOPHILIA B), FULL GENE SEQUENCE |
| 81239 | DMPK (DM1 PROTEIN KINASE) (EG, MYOTONIC DYSTROPHY TYPE 1) GENE ANALYSIS; CHARACTERIZATION OF ALLELES (EG, EXPANDED SIZE) |
| 81240 | F2 (PROTHROMBIN, COAGULATION FACTOR II) (EG, HEREDITARY HYPERCOAGULABILITY) GENE ANALYSIS, 20210G>A VARIANT |
| 81241 | F5 (COAGULATION FACTOR V) (EG, HEREDITARY HYPERCOAGULABILITY) GENE ANALYSIS, LEIDEN VARIANT |
| 81242 | FANCC (FANCONI ANEMIA, COMPLEMENTATION GROUP C) (EG, FANCONI ANEMIA, TYPE C) GENE ANALYSIS, COMMON VARIANT (EG, IVS4+4A>T) |
| 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 |
| 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) |
| 81247 | G6PD (GLUCOSE-6-PHOSPHATE DEHYDROGENASE) (EG, HEMOLYTIC ANEMIA, JAUNDICE), GENE ANALYSIS; COMMON VARIANT(S) (EG, A, A-) |
| 81248 | G6PD (GLUCOSE-6-PHOSPHATE DEHYDROGENASE) (EG, HEMOLYTIC ANEMIA, JAUNDICE), GENE ANALYSIS; KNOWN FAMILIAL VARIANT(S) |
| 81249 | G6PD (GLUCOSE-6-PHOSPHATE DEHYDROGENASE) (EG, HEMOLYTIC ANEMIA, JAUNDICE), GENE ANALYSIS; FULL GENE SEQUENCE |
| 81250 | G6PC (GLUCOSE-6-PHOSPHATASE, CATALYTIC SUBUNIT) (EG, GLYCOGEN STORAGE DISEASE, TYPE 1A, VON GIERKE DISEASE) GENE ANALYSIS, COMMON VARIANTS (EG, R83C, Q347X) |
| 81251 | GBA (GLUCOSIDASE, BETA, ACID) (EG, GAUCHER DISEASE) GENE ANALYSIS, COMMON VARIANTS (EG, N370S, 84GG, L444P, IVS2+1G>A) |
| 81252 | GJB2 (GAP JUNCTION PROTEIN, BETA 2, 26KDA, CONNEXIN 26) (EG, |

| CODE | DESCRIPTION |
|-------|---|
| | NONSYNDROMIC HEARING LOSS) GENE ANALYSIS; FULL GENE SEQUENCE |
| 81253 | GJB2 (GAP JUNCTION PROTEIN, BETA 2, 26KDA, CONNEXIN 26) (EG, NONSYNDROMIC HEARING LOSS) GENE ANALYSIS; KNOWN FAMILIAL VARIANTS |
| 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)]) |
| 81255 | HEXA (HEXOSAMINIDASE A [ALPHA POLYPEPTIDE]) (EG, TAY-SACHS DISEASE) GENE ANALYSIS, COMMON VARIANTS (EG, 1278INSTATC, 1421+1G>C, G269S) |
| 81257 | HBA1/HBA2 (ALPHA GLOBIN 1 AND ALPHA GLOBIN 2) (EG, ALPHA THALASSEMIA, HB BART HYDROPS FETALIS SYNDROME, HBH DISEASE), GENE ANALYSIS; COMMON DELETIONS OR VARIANT (EG, SOUTHEAST ASIAN, THAI, FILIPINO, MEDITERRANEAN, ALPHA3.7, ALPHA4.2, ALPHA20.5, CONSTANT SPRING) |
| 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 |
| 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 |
| 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) |
| 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 |
| 81271 | HTT (HUNTINGTIN) (EG, HUNTINGTON DISEASE) GENE ANALYSIS; EVALUATION TO DETECT ABNORMAL (EG, EXPANDED) ALLELES |
| 81274 | HTT (HUNTINGTIN) (EG, HUNTINGTON DISEASE) GENE ANALYSIS; CHARACTERIZATION OF ALLELES (EG, EXPANDED SIZE) |
| 81283 | IFNL3 (INTERFERON, LAMBDA 3) (EG, DRUG RESPONSE), GENE ANALYSIS, RS12979860 VARIANT |
| 81284 | FXN (FRATAXIN) (EG, FRIEDREICH ATAXIA) GENE ANALYSIS; EVALUATION TO DETECT ABNORMAL (EXPANDED) ALLELES |
| 81285 | FXN (FRATAXIN) (EG, FRIEDREICH ATAXIA) GENE ANALYSIS; CHARACTERIZATION OF ALLELES (EG, EXPANDED SIZE) |
| 81286 | FXN (FRATAXIN) (EG, FRIEDREICH ATAXIA) GENE ANALYSIS; FULL GENE SEQUENCE |
| 81289 | FXN (FRATAXIN) (EG, FRIEDREICH ATAXIA) GENE ANALYSIS; KNOWN FAMILIAL VARIANT(S) |

| CODE | DESCRIPTION |
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| 81290 | MCOLN1 (MUCOLIPIN 1) (EG, MUCOLIPIDOSIS, TYPE IV) GENE ANALYSIS, COMMON VARIANTS (EG, IVS3-2A>G, DEL6.4KB) |
| 81291 | MTHFR (5,10-METHYLENETETRAHYDROFOLATE REDUCTASE) (EG, HEREDITARY HYPERCOAGULABILITY) GENE ANALYSIS, COMMON VARIANTS (EG, 677T, 1298C) |
| 81302 | MECP2 (METHYL CPG BINDING PROTEIN 2) (EG, RETT SYNDROME) GENE ANALYSIS; FULL SEQUENCE ANALYSIS |
| 81303 | MECP2 (METHYL CPG BINDING PROTEIN 2) (EG, RETT SYNDROME) GENE ANALYSIS; KNOWN FAMILIAL VARIANT |
| 81304 | MECP2 (METHYL CPG BINDING PROTEIN 2) (EG, RETT SYNDROME) GENE ANALYSIS; DUPLICATION/DELETION VARIANTS |
| 81324 | PMP22 (PERIPHERAL MYELIN PROTEIN 22) (EG, CHARCOT-MARIE-TOOTH, HEREDITARY NEUROPATHY WITH LIABILITY TO PRESSURE PALSIES) GENE ANALYSIS; DUPLICATION/DELETION ANALYSIS |
| 81325 | PMP22 (PERIPHERAL MYELIN PROTEIN 22) (EG, CHARCOT-MARIE-TOOTH, HEREDITARY NEUROPATHY WITH LIABILITY TO PRESSURE PALSIES) GENE ANALYSIS; FULL SEQUENCE ANALYSIS |
| 81326 | PMP22 (PERIPHERAL MYELIN PROTEIN 22) (EG, CHARCOT-MARIE-TOOTH, HEREDITARY NEUROPATHY WITH LIABILITY TO PRESSURE PALSIES) GENE ANALYSIS; KNOWN FAMILIAL VARIANT |
| 81327 | SEPT9 (SEPTIN9) (EG, COLORECTAL CANCER) PROMOTER METHYLATION ANALYSIS |
| 81328 | SLCO1B1 (SOLUTE CARRIER ORGANIC ANION TRANSPORTER FAMILY, MEMBER 1B1) (EG, ADVERSE DRUG REACTION), GENE ANALYSIS, COMMON VARIANT(S) (EG, *5) |
| 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 |
| 81330 | SMPD1 (SPHINGOMYELIN PHOSPHODIESTERASE 1, ACID LYSOSOMAL) (EG, NIEMANN-PICK DISEASE, TYPE A) GENE ANALYSIS, COMMON VARIANTS (EG, R496L, L302P, FSP330) |
| 81331 | SNRPN/UBE3A (SMALL NUCLEAR RIBONUCLEOPROTEIN POLYPEPTIDE N AND UBIQUITIN PROTEIN LIGASE E3A) (EG, PRADER-WILLI SYNDROME AND/OR ANGELMAN SYNDROME), METHYLATION ANALYSIS |
| 81336 | SMN1 (SURVIVAL OF MOTOR NEURON 1, TELOMERIC) (EG, SPINAL MUSCULAR ATROPHY) GENE ANALYSIS; FULL GENE SEQUENCE |
| 81337 | SMN1 (SURVIVAL OF MOTOR NEURON 1, TELOMERIC) (EG, SPINAL MUSCULAR ATROPHY) GENE ANALYSIS; KNOWN FAMILIAL SEQUENCE VARIANT(S) |
| 81346 | TYMS (THYMIDYLATE SYNTHETASE) (EG, 5-FLUOROURACIL/5-FU DRUG |

| CODE | DESCRIPTION |
|---------------|---|
| | METABOLISM), GENE ANALYSIS, COMMON VARIANT(S) (EG, TANDEM REPEAT VARIANT) |
| 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 |
| 81350 | UGT1A1 (UDP GLUCURONOSYLTRANSFERASE 1 FAMILY, POLYPEPTIDE A1) (EG, DRUG METABOLISM, HEREDITARY UNCONJUGATED HYPERBILIRUBINEMIA [GILBERT SYNDROME]) GENE ANALYSIS, COMMON VARIANTS (EG, *28, *36, *37) |
| 81355 | VKORC1 (VITAMIN K EPOXIDE REDUCTASE COMPLEX, SUBUNIT 1) (EG, WARFARIN METABOLISM), GENE ANALYSIS, COMMON VARIANT(S) (EG, -1639G>A, C.173+1000C>T) |
| 81361 - 81364 | HBB (HEMOGLOBIN, SUBUNIT BETA) (EG, SICKLE CELL ANEMIA, BETA THALASSEMIA, HEMOGLOBINOPATHY); COMMON VARIANT(S) (EG, HBS, HBC, HBE) - HBB (HEMOGLOBIN, SUBUNIT BETA) (EG, SICKLE CELL ANEMIA, BETA THALASSEMIA, HEMOGLOBINOPATHY); FULL GENE SEQUENCE |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 81415 | EXOME (EG, UNEXPLAINED CONSTITUTIONAL OR HERITABLE DISORDER OR SYNDROME); SEQUENCE ANALYSIS |

| CODE | DESCRIPTION |
|-------|---|
| 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) |
| 81417 | EXOME (EG, UNEXPLAINED CONSTITUTIONAL OR HERITABLE DISORDER OR SYNDROME); RE-EVALUATION OF PREVIOUSLY OBTAINED EXOME SEQUENCE (EG, UPDATED KNOWLEDGE OR UNRELATED CONDITION/SYNDROME) |
| 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 |
| 81422 | FETAL CHROMOSOMAL MICRODELETION(S) GENOMIC SEQUENCE ANALYSIS (EG, DIGEORGE SYNDROME, CRI-DU-CHAT SYNDROME), CIRCULATING CELL-FREE FETAL DNA IN MATERNAL BLOOD |
| 81425 | GENOME (EG, UNEXPLAINED CONSTITUTIONAL OR HERITABLE DISORDER OR SYNDROME); SEQUENCE ANALYSIS |
| 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) |
| 81427 | GENOME (EG, UNEXPLAINED CONSTITUTIONAL OR HERITABLE DISORDER OR SYNDROME); RE-EVALUATION OF PREVIOUSLY OBTAINED GENOME SEQUENCE (EG, UPDATED KNOWLEDGE OR UNRELATED CONDITION/SYNDROME) |
| 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 |
| 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 |
| 81432 | HEREDITARY BREAST CANCER-RELATED DISORDERS (EG, HEREDITARY BREAST CANCER, HEREDITARY OVARIAN CANCER, HEREDITARY ENDOMETRIAL CANCER); GENOMIC SEQUENCE ANALYSIS PANEL, MUST INCLUDE SEQUENCING OF AT LEAST 10 GENES, ALWAYS INCLUDING BRCA1, BRCA2, CDH1, MLH1, MSH2, MSH6, PALB2, PTEN, STK11, AND TP53 |
| 81433 | HEREDITARY BREAST CANCER-RELATED DISORDERS (EG, HEREDITARY BREAST CANCER, HEREDITARY OVARIAN CANCER, HEREDITARY ENDOMETRIAL CANCER); DUPLICATION/DELETION ANALYSIS PANEL, MUST INCLUDE ANALYSES FOR BRCA1, BRCA2, MLH1, MSH2, AND STK11 |
| 81434 | HEREDITARY RETINAL DISORDERS (EG, RETINITIS PIGMENTOSA, LEBER CONGENITAL AMAUROSIS, CONE-ROD DYSTROPHY), GENOMIC SEQUENCE |

| CODE | DESCRIPTION |
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| | 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 |
| 81435 | HEREDITARY COLON CANCER DISORDERS (EG, LYNCH SYNDROME, PTEN HAMARTOMA SYNDROME, COWDEN SYNDROME, FAMILIAL ADENOMATOSIS POLYPOSIS); GENOMIC SEQUENCE ANALYSIS PANEL, MUST INCLUDE SEQUENCING OF AT LEAST 10 GENES, INCLUDING APC, BMPR1A, CDH1, MLH1, MSH2, MSH6, MUTYH, PTEN, SMAD4, AND STK11 |
| 81436 | HEREDITARY COLON CANCER DISORDERS (EG, LYNCH SYNDROME, PTEN HAMARTOMA SYNDROME, COWDEN SYNDROME, FAMILIAL ADENOMATOSIS POLYPOSIS); DUPLICATION/DELETION ANALYSIS PANEL, MUST INCLUDE ANALYSIS OF AT LEAST 5 GENES, INCLUDING MLH1, MSH2, EPCAM, SMAD4, AND STK11 |
| 81437 | HEREDITARY NEUROENDOCRINE TUMOR DISORDERS (EG, MEDULLARY THYROID CARCINOMA, PARATHYROID CARCINOMA, MALIGNANT PHEOCHROMOCYTOMA OR PARAGANGLIOMA); GENOMIC SEQUENCE ANALYSIS PANEL, MUST INCLUDE SEQUENCING OF AT LEAST 6 GENES, INCLUDING MAX, SDHB, SDHC, SDHD, TMEM127, AND VHL |
| 81438 | HEREDITARY NEUROENDOCRINE TUMOR DISORDERS (EG, MEDULLARY THYROID CARCINOMA, PARATHYROID CARCINOMA, MALIGNANT PHEOCHROMOCYTOMA OR PARAGANGLIOMA); DUPLICATION/DELETION ANALYSIS PANEL, MUST INCLUDE ANALYSES FOR SDHB, SDHC, SDHD, AND VHL |
| 81439 | HEREDITARY CARDIOMYOPATHY (EG, HYPERTROPHIC CARDIOMYOPATHY, DILATED CARDIOMYOPATHY, ARRHYTHMOGENIC RIGHT VENTRICULAR CARDIOMYOPATHY), GENOMIC SEQUENCE ANALYSIS PANEL, MUST INCLUDE SEQUENCING OF AT LEAST 5 CARDIOMYOPATHY-RELATED GENES (EG, DSG2, MYBPC3, MYH7, PKP2, TTN) |
| 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 |
| 81442 | NOONAN SPECTRUM DISORDERS (EG, NOONAN SYNDROME, RADIO-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 |
| 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, |

| CODE | DESCRIPTION |
|-------|--|
| | BCKDHB, BLM, CFTR, DHCR7, FANCC, G6PC, GAA, GALT, GBA, GBE1, HBB, HEXA, IKBKAP, MCOLN1, PAH) |
| 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) |
| 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 |
| 81465 | WHOLE MITOCHONDRIAL GENOME LARGE DELETION ANALYSIS PANEL (EG, KEARNS-SAYRE SYNDROME, CHRONIC PROGRESSIVE EXTERNAL OPHTHALMOPLÉGIA), INCLUDING HETEROPLASMY DETECTION, IF PERFORMED |
| 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 |
| 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 |
| 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 |
| 81500 | ONCOLOGY (OVARIAN), BIOCHEMICAL ASSAYS OF TWO PROTEINS (CA-125 AND HE4), UTILIZING SERUM, WITH MENOPAUSAL STATUS, ALGORITHM REPORTED AS A RISK SCORE |
| 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 |
| 81504 | ONCOLOGY (TISSUE OF ORIGIN), MICROARRAY GENE EXPRESSION PROFILING OF > 2000 GENES, UTILIZING FORMALIN-FIXED PARAFFIN-EMBEDDED TISSUE, ALGORITHM REPORTED AS TISSUE SIMILARITY SCORES |
| CODE | DESCRIPTION |
| 81507 | FETAL ANEUPLOIDY (TRISOMY 21, 18, AND 13) DNA SEQUENCE ANALYSIS OF SELECTED REGIONS USING MATERNAL PLASMA, ALGORITHM REPORTED AS A RISK |

| CODE | DESCRIPTION |
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| | SCORE FOR EACH TRISOMY |
| 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 |
| 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 |
| 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 |
| 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) |
| 81538 | ONCOLOGY (LUNG), MASS SPECTROMETRIC 8-PROTEIN SIGNATURE, INCLUDING AMYLOID A, UTILIZING SERUM, PROGNOSTIC AND PREDICTIVE ALGORITHM REPORTED AS GOOD VERSUS POOR OVERALL SURVIVAL |
| 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 |
| 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 |

Group 4 Paragraph:

Tier 2 CPT and NOC Codes

Refer to indications and Limitations of Coverage section (L35000).

Tier 2/NOC Covered Code/Gene Combinations

Limited coverage may be provided for specific genes reported below:

81400 ACE, F13B, F5, F7, FGB

81401 CFBF-MYH11, E2A/PBX1, EML4-ALK, ETV6-RUNX1, EWSR1/ERG, EWSR1/FLI1, EWSR1/WT1, F11coagulation factor XI, FIP1L1-PDGFR, FOXO1/PAX3, FOXO1/PAX7, MUTYH (mutY homolog [E.coli]), NPM/ALK, PAX8/PPARG, RUNX1/RUNX1T1

81403 F8 (coagulation factor VIII), VHL (von Hippel-Lindau tumor suppressor)

81404 CDKN2A (cyclin-dependent kinase inhibitor 2A), PRSS1 (protease, serine, 1 [trypsin 1]), MEN1 (multiple endocrine neoplasia 1) (eg, multiple endocrine neoplasia type 1, Wermer syndrome), duplication/deletion, TP53 (tumor protein 53) (e.g. tumor samples), targeted sequence analysis of 2-5 exons, VHL (von Hippel-Lindau tumor suppressor)

81405 TP53 (tumor protein 53) (e.g. Li-Fraumeni syndrome, tumor samples), full gene sequence or targeted sequence analysis of >5 exons,

81406 ATP7B (ATPase, Cu++ transporting, beta polypeptide)

Tier 2/NOC Individual Review Code/Gene Combinations

Any genetic test reported with a Tier 2 CPT code, not listed above or below, is subject to individual review.

Tier 2/NOC Non-covered Code/Gene Combinations

The following individual Tier 2 genetic tests are unlikely to impact therapeutic decision-making, directly impact treatment, outcome and/or clinical management in the care of the beneficiary and will be denied as not medically necessary (Please note that this list of non-covered genes is not exhaustive, and the fact that a specific gene is not mentioned does not mean it is covered. In addition, many genes have several names that are used. The most common names have been used in this article):

81400 ABCC8, ACADM, AGTR1, CCR5, CLRN1, DYT1 (TOR1A), FGFR3, IL28B, IVD, TOR1A

81401 ADRB2, APOE, ATN1, CFH/ARMS2, DEK/NUP214, FGFR3, GALT (galactose-1-phosphate uridylyltransferase), H19, KCNQ10T1 (KCNQ1 overlapping transcript 1), MEG3/DLK1, MLL/AFF, MT-ATP6, MT-ND4, MT-ND6, MT-ND5 mitochondrially encoded tRNA leucine 1 [UUA/G] mitochondrially encoded NADH dehydrogenase 5), MT-RNR1 (mitochondrially encoded 12S RNA), MT-TK (mitochondrially encoded tRNA lysine), MT-TL1, MT-TS1, PRSS1 (protease, serine, 1 [trypsin 1])

81402 CYP21A2, Chromosome 18q-, MEFV (Mediterranean fever) (eg, familial Mediterranean fever), TRD 81402 Uniparental disomy (UPD)

81403 ANG (angiogenin, ribonuclease, RNase A family, 5), FGFR3 (fibroblast growth factor receptor 3) one exon, GJB1 (gap junction protein, beta 1) (eg, Charcot-Marie-Tooth X-linked), full gene sequence, HRAS (v-Ha-ras Harvey rat sarcoma viral oncogene homolog Costello syndrome), MT-RNR1 (mitochondrially encoded 12S RNA), MT-TS1 (mitochondrially encoded tRNA serine 1)

81404 ACADS (acyl-CoA dehydrogenase), AQP2 (aquaporin 2 [collecting duct]), ARX (aristaless related homeobox), BTBD9 (biotinidase), CAV3 (caveolin 3) (eg, CAV3-related distal myopathy, limb-girdle muscular

dystrophy type 1C), full gene sequence, CLRN1 (clarin 1), CYP1B1 (cytochrome P450, family 1, subfamily B, polypeptide 1), EGR2 (early growth response 2) (eg, Charcot-Marie-Tooth), FGFR2 (fibroblast growth factor receptor 2) (2 EXONS), FGFR3 (fibroblast growth factor receptor 3) (4 EXONS), FKRP (Fukutin related protein), FOXP1 (forkhead box G1), FSHMD1A (facioscapulohumeral muscular dystrophy 1A), FSHMD1A (facioscapulohumeral muscular dystrophy 1A), HNF1B (HNF1 homeobox B), HRAS (v-Ha-ras Harvey rat sarcoma viral oncogene homolog), KCNJ10 (potassium inwardly-rectifying channel, subfamily J, member 10), SLC25A4 (solute carrier family 25 [mitochondrial carrier; adenine nucleotide translocation], VWF (von Willebrand factor)

81405 CASR (CAR, EIG8, extracellular calcium-sensing receptor, FHH, FIH, GPRC2A, HHC, HHC1, NSHPT, PCAR1), CYP21A2 (cytochrome P450, family 21, subfamily A, polypeptide2), MPZ (myelin protein zero)

81406 ACADVL (acyl-CoA dehydrogenase, very long chain), CBS (cystathionine-beta-synthase), CDKL5 (cyclin-dependent kinase-like 5) DLAT (dihydrolipoamide S-acetyltransferase), DLD (dihydrolipoamide dehydrogenase), F8 (coagulation factor VIII), GALT (galactose-1-phosphate uridylyltransferase), HADHA (hydroxyacyl-CoA dehydrogenase/3-ketoacyl-CoA thiolase/enoyl-CoA hydratase [trifunctional protein] alpha subunit), HEXA (hexosaminidase A, alpha polypeptide), LMNA (lamin A/C), MUTYH (mutY homolog [E. coli]), NF2 (neurofibromin 2 [merlin]), NSD1 (nuclear receptor binding SET domain protein 1), PAH (phenylalanine hydroxylase), PAX2 (paired box 2), PDHA1 (pyruvate dehydrogenase [lipoamide] alpha1), POLG (polymerase [DNA directed], gamma), PRKAG2 (protein kinase, AMP-activated, gamma 2 non-catalytic subunit), PTPN11 (protein tyrosine phosphatase, non-receptor type 11), RET (ret-proto-oncogene) (eg, Hirschsprung disease), full gene sequence, SLC9A6 (solute carrier family 9 [sodium/hydrogen exchanger] member 6), SOS1 (son of sevenless homolog 1), TAZ (tafazzin), TSC1 (tuberous sclerosis 1), TSC2 (tuberous sclerosis 2), UBE3A (ubiquitin protein ligase)

81407 Level 8 Molecular Pathology Procedures, F8 (coagulation factor VIII)

81408 Level 9 Molecular Pathology Procedures

81479 PIK3C, PI3Ks, PI(3)Ks, PI-3Ks, AKT1, MEK1, VEGFR2 (CD309, FLK1, VEGFR), LPA intron 25 genotype, KIF6, SPG4, C9orf72, MLH1, AIRE (APSI), SDA2, HAX1 (HAX1_HUMAN, HCLS1- associated protein X-1, HCLSBP1, HS1-associating protein X-1, HS1 binding protein, HS1-binding protein 1, HS1BP1, HSP1BP-1)

Note: When a panel with greater than one or less than five genes is ordered, use the corresponding existing panel CPT code or CPT code 81479 if none exists.

Group 4 Codes: (10 Codes)

| CODE | DESCRIPTION |
|-------|--|
| 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) |
| 81401 | MOLECULAR PATHOLOGY PROCEDURE, LEVEL 2 (EG, 2-10 SNPS, 1 METHYLATED VARIANT, OR 1 SOMATIC VARIANT [TYPICALLY USING NONSEQUENCING TARGET VARIANT ANALYSIS], OR DETECTION OF A DYNAMIC MUTATION DISORDER/TRIPLET REPEAT) |
| 81402 | MOLECULAR PATHOLOGY PROCEDURE, LEVEL 3 (EG, >10 SNPS, 2-10 METHYLATED VARIANTS, OR 2-10 SOMATIC VARIANTS [TYPICALLY USING NON-SEQUENCING |

| CODE | DESCRIPTION |
|-------|--|
| | TARGET VARIANT ANALYSIS], IMMUNOGLOBULIN AND T-CELL RECEPTOR GENE REARRANGEMENTS, DUPLICATION/DELETION VARIANTS OF 1 EXON, LOSS OF HETEROZYGOSITY [LOH], UNIPARENTAL DISOMY [UPD]) |
| 81403 | MOLECULAR PATHOLOGY PROCEDURE, LEVEL 4 (EG, ANALYSIS OF SINGLE EXON BY DNA SEQUENCE ANALYSIS, ANALYSIS OF >10 AMPLICONS USING MULTIPLEX PCR IN 2 OR MORE INDEPENDENT REACTIONS, MUTATION SCANNING OR DUPLICATION/DELETION VARIANTS OF 2-5 EXONS) |
| 81404 | MOLECULAR PATHOLOGY PROCEDURE, LEVEL 5 (EG, ANALYSIS OF 2-5 EXONS BY DNA SEQUENCE ANALYSIS, MUTATION SCANNING OR DUPLICATION/DELETION VARIANTS OF 6-10 EXONS, OR CHARACTERIZATION OF A DYNAMIC MUTATION DISORDER/TRIPLET REPEAT BY SOUTHERN BLOT ANALYSIS) UGT1A1 (UDP GLUCURONOSYLTRANSFERASE 1 FAMILY, POLYPEPTIDE A1) (EG, HEREDITARY UNCONJUGATED HYPERBILIRUBINEMIA [CRIGLER-NAJJAR SYNDROME]) FULL GENE SEQUENCE |
| 81405 | MOLECULAR PATHOLOGY PROCEDURE, LEVEL 6 (EG, ANALYSIS OF 6-10 EXONS BY DNA SEQUENCE ANALYSIS, MUTATION SCANNING OR DUPLICATION/DELETION VARIANTS OF 11-25 EXONS, REGIONALLY TARGETED CYTOGENOMIC ARRAY ANALYSIS) |
| 81406 | MOLECULAR PATHOLOGY PROCEDURE, LEVEL 7 (EG, ANALYSIS OF 11-25 EXONS BY DNA SEQUENCE ANALYSIS, MUTATION SCANNING OR DUPLICATION/DELETION VARIANTS OF 26-50 EXONS, CYTOGENOMIC ARRAY ANALYSIS FOR NEOPLASIA) |
| 81407 | MOLECULAR PATHOLOGY PROCEDURE, LEVEL 8 (EG, ANALYSIS OF 26-50 EXONS BY DNA SEQUENCE ANALYSIS, MUTATION SCANNING OR DUPLICATION/DELETION VARIANTS OF >50 EXONS, SEQUENCE ANALYSIS OF MULTIPLE GENES ON ONE PLATFORM) APOB (APOLIPOPROTEIN B) (EG, FAMILIAL HYPERCHOLESTEROLEMIA TYPE B) FULL GENE SEQUENCE |
| 81408 | MOLECULAR PATHOLOGY PROCEDURE, LEVEL 9 (EG, ANALYSIS OF >50 EXONS IN A SINGLE GENE BY DNA SEQUENCE ANALYSIS) |
| 81479 | UNLISTED MOLECULAR PATHOLOGY PROCEDURE |

Group 5 Paragraph:

The following PLA codes in Group 5 below are unlikely to impact therapeutic decision-making in the clinical management of the patient and will be denied automatically as not medically necessary:

Group 5 Codes: (1 Code)

| CODE | DESCRIPTION |
|-------|--|
| 0119U | CARDIOLOGY, CERAMIDES BY LIQUID CHROMATOGRAPHY-TANDEM MASS SPECTROMETRY, PLASMA, QUANTITATIVE REPORT WITH RISK SCORE FOR MAJOR CARDIOVASCULAR EVENTS |

CPT/HCPCS Modifiers

Group 1 Paragraph:

The 91 modifier is used for laboratory tests paid under the clinical laboratory fee schedule, as stated in the Medicare Claims Processing Manual Chapter 16, Laboratory Services Section 100.5.1.

Group 1 Codes: (1 Code)

| CODE | DESCRIPTION |
|------|---|
| 91 | REPEAT CLINICAL DIAGNOSTIC LABORATORY TEST: IN THE COURSE OF TREATMENT OF THE PATIENT, IT MAY BE NECESSARY TO REPEAT THE SAME LABORATORY TEST ON THE SAME DAY TO OBTAIN SUBSEQUENT (MULTIPLE) TEST RESULTS. UNDER THESE CIRCUMSTANCES, THE LABORATORY TEST PERFORMED CAN BE IDENTIFIED BY ITS USUAL PROCEDURE NUMBER AND THE ADDITION OF THE MODIFIER '-91'. NOTE: THIS MODIFIER MAY NOT BE USED WHEN TESTS ARE RERUN TO CONFIRM INITIAL RESULTS; DUE TO TESTING PROBLEMS WITH SPECIMENS OR EQUIPMENT; OR FOR ANY OTHER REASON WHEN A NORMAL, ONE-TIME, REPORTABLE RESULT IS ALL THAT IS REQUIRED. THIS MODIFIER MAY NOT BE USED WHEN OTHER CODE(S) DESCRIBE A SERIES OF TEST RESULTS (E.G., GLUCOSE TOLERANCE TESTS, EVOCATIVE/SUPPRESSION TESTING). THIS MODIFIER MAY ONLY BE USED FOR LABORATORY TEST(S) PERFORMED MORE THAN ONCE ON THE SAME DAY ON THE SAME PATIENT. |

ICD-10-CM Codes that Support Medical Necessity

Group 1 Paragraph:

CPT codes 81162-81167, 81212, 81215, 81216, 81217 are considered medically necessary for the following ICD-10-CM codes:

Group 1 Codes: (78 Codes)

| CODE | DESCRIPTION |
|-------|---|
| C25.0 | Malignant neoplasm of head of pancreas |
| C25.1 | Malignant neoplasm of body of pancreas |
| C25.2 | Malignant neoplasm of tail of pancreas |
| C25.3 | Malignant neoplasm of pancreatic duct |
| C25.4 | Malignant neoplasm of endocrine pancreas |
| C25.7 | Malignant neoplasm of other parts of pancreas |
| C25.8 | Malignant neoplasm of overlapping sites of pancreas |
| C25.9 | Malignant neoplasm of pancreas, unspecified |

| CODE | DESCRIPTION |
|---------|---|
| C48.1 | Malignant neoplasm of specified parts of peritoneum |
| C50.011 | Malignant neoplasm of nipple and areola, right female breast |
| C50.012 | Malignant neoplasm of nipple and areola, left female breast |
| C50.019 | Malignant neoplasm of nipple and areola, unspecified female breast |
| C50.021 | Malignant neoplasm of nipple and areola, right male breast |
| C50.022 | Malignant neoplasm of nipple and areola, left male breast |
| C50.029 | Malignant neoplasm of nipple and areola, unspecified male breast |
| C50.111 | Malignant neoplasm of central portion of right female breast |
| C50.112 | Malignant neoplasm of central portion of left female breast |
| C50.119 | Malignant neoplasm of central portion of unspecified female breast |
| C50.121 | Malignant neoplasm of central portion of right male breast |
| C50.122 | Malignant neoplasm of central portion of left male breast |
| C50.129 | Malignant neoplasm of central portion of unspecified male breast |
| C50.211 | Malignant neoplasm of upper-inner quadrant of right female breast |
| C50.212 | Malignant neoplasm of upper-inner quadrant of left female breast |
| C50.219 | Malignant neoplasm of upper-inner quadrant of unspecified female breast |
| C50.221 | Malignant neoplasm of upper-inner quadrant of right male breast |
| C50.222 | Malignant neoplasm of upper-inner quadrant of left male breast |
| C50.229 | Malignant neoplasm of upper-inner quadrant of unspecified male breast |
| C50.311 | Malignant neoplasm of lower-inner quadrant of right female breast |
| C50.312 | Malignant neoplasm of lower-inner quadrant of left female breast |
| C50.319 | Malignant neoplasm of lower-inner quadrant of unspecified female breast |
| C50.321 | Malignant neoplasm of lower-inner quadrant of right male breast |
| C50.322 | Malignant neoplasm of lower-inner quadrant of left male breast |
| C50.329 | Malignant neoplasm of lower-inner quadrant of unspecified male breast |
| C50.411 | Malignant neoplasm of upper-outer quadrant of right female breast |
| C50.412 | Malignant neoplasm of upper-outer quadrant of left female breast |
| C50.419 | Malignant neoplasm of upper-outer quadrant of unspecified female breast |
| C50.421 | Malignant neoplasm of upper-outer quadrant of right male breast |
| C50.422 | Malignant neoplasm of upper-outer quadrant of left male breast |
| C50.429 | Malignant neoplasm of upper-outer quadrant of unspecified male breast |
| C50.511 | Malignant neoplasm of lower-outer quadrant of right female breast |

| CODE | DESCRIPTION |
|---------|---|
| C50.512 | Malignant neoplasm of lower-outer quadrant of left female breast |
| C50.519 | Malignant neoplasm of lower-outer quadrant of unspecified female breast |
| C50.521 | Malignant neoplasm of lower-outer quadrant of right male breast |
| C50.522 | Malignant neoplasm of lower-outer quadrant of left male breast |
| C50.529 | Malignant neoplasm of lower-outer quadrant of unspecified male breast |
| C50.611 | Malignant neoplasm of axillary tail of right female breast |
| C50.612 | Malignant neoplasm of axillary tail of left female breast |
| C50.619 | Malignant neoplasm of axillary tail of unspecified female breast |
| C50.621 | Malignant neoplasm of axillary tail of right male breast |
| C50.622 | Malignant neoplasm of axillary tail of left male breast |
| C50.629 | Malignant neoplasm of axillary tail of unspecified male breast |
| C50.811 | Malignant neoplasm of overlapping sites of right female breast |
| C50.812 | Malignant neoplasm of overlapping sites of left female breast |
| C50.819 | Malignant neoplasm of overlapping sites of unspecified female breast |
| C50.821 | Malignant neoplasm of overlapping sites of right male breast |
| C50.822 | Malignant neoplasm of overlapping sites of left male breast |
| C50.829 | Malignant neoplasm of overlapping sites of unspecified male breast |
| C50.911 | Malignant neoplasm of unspecified site of right female breast |
| C50.912 | Malignant neoplasm of unspecified site of left female breast |
| C50.919 | Malignant neoplasm of unspecified site of unspecified female breast |
| C50.921 | Malignant neoplasm of unspecified site of right male breast |
| C50.922 | Malignant neoplasm of unspecified site of left male breast |
| C50.929 | Malignant neoplasm of unspecified site of unspecified male breast |
| C56.1 | Malignant neoplasm of right ovary |
| C56.2 | Malignant neoplasm of left ovary |
| C56.3 | Malignant neoplasm of bilateral ovaries |
| C56.9 | Malignant neoplasm of unspecified ovary |
| C57.00 | Malignant neoplasm of unspecified fallopian tube |
| C57.01 | Malignant neoplasm of right fallopian tube |
| C57.02 | Malignant neoplasm of left fallopian tube |
| C61 | Malignant neoplasm of prostate |
| D05.11 | Intraductal carcinoma in situ of right breast |

| CODE | DESCRIPTION |
|---------|--|
| D05.12 | Intraductal carcinoma in situ of left breast |
| Z85.07 | Personal history of malignant neoplasm of pancreas |
| Z85.3 | Personal history of malignant neoplasm of breast |
| Z85.43 | Personal history of malignant neoplasm of ovary |
| Z85.46 | Personal history of malignant neoplasm of prostate |
| Z86.000 | Personal history of in-situ neoplasm of breast |

Group 2 Paragraph:

CPT code 81170 is considered medically necessary for the following ICD-10-CM codes

Group 2 Codes: (9 Codes)

| CODE | DESCRIPTION |
|-----------------|--|
| C91.00 - C91.02 | Acute lymphoblastic leukemia not having achieved remission - Acute lymphoblastic leukemia, in relapse |
| C92.10 - C92.12 | Chronic myeloid leukemia, BCR/ABL-positive, not having achieved remission - Chronic myeloid leukemia, BCR/ABL-positive, in relapse |
| C92.20 - C92.22 | Atypical chronic myeloid leukemia, BCR/ABL-negative, not having achieved remission - Atypical chronic myeloid leukemia, BCR/ABL-negative, in relapse |

Group 3 Paragraph:

CPT codes 81206, 81207, and 81208 (BCR/ABL) are considered medically necessary for the following ICD-10-CM codes:

Group 3 Codes: (14 Codes)

| CODE | DESCRIPTION |
|-----------------|--|
| C91.00 - C91.02 | Acute lymphoblastic leukemia not having achieved remission - Acute lymphoblastic leukemia, in relapse |
| C92.10 - C92.12 | Chronic myeloid leukemia, BCR/ABL-positive, not having achieved remission - Chronic myeloid leukemia, BCR/ABL-positive, in relapse |
| C92.20 - C92.22 | Atypical chronic myeloid leukemia, BCR/ABL-negative, not having achieved remission - Atypical chronic myeloid leukemia, BCR/ABL-negative, in relapse |
| C92.90 - C92.92 | Myeloid leukemia, unspecified, not having achieved remission - Myeloid leukemia, unspecified in relapse |
| D47.3 | Essential (hemorrhagic) thrombocythemia |
| D72.829 | Elevated white blood cell count, unspecified |

Group 4 Paragraph:

CPT code 81210 (BRAF) is considered medically necessary for the following ICD-10-CM codes:

Group 4 Codes: (93 Codes)

| CODE | DESCRIPTION |
|-----------------|---|
| C17.0 - C17.9 | Malignant neoplasm of duodenum - Malignant neoplasm of small intestine, unspecified |
| C18.0 - C19 | Malignant neoplasm of cecum - Malignant neoplasm of rectosigmoid junction |
| C20 | Malignant neoplasm of rectum |
| C21.1 | Malignant neoplasm of anal canal |
| C21.2 | Malignant neoplasm of cloacogenic zone |
| C21.8 | Malignant neoplasm of overlapping sites of rectum, anus and anal canal |
| C33 - C34.92 | Malignant neoplasm of trachea - Malignant neoplasm of unspecified part of left bronchus or lung |
| C43.0 - C43.9 | Malignant melanoma of lip - Malignant melanoma of skin, unspecified |
| C78.4 | Secondary malignant neoplasm of small intestine |
| C78.5 | Secondary malignant neoplasm of large intestine and rectum |
| C91.40 - C91.42 | Hairy cell leukemia not having achieved remission - Hairy cell leukemia, in relapse |
| D03.0 - D03.9 | Melanoma in situ of lip - Melanoma in situ, unspecified |
| Z85.038 | Personal history of other malignant neoplasm of large intestine |
| Z85.048 | Personal history of other malignant neoplasm of rectum, rectosigmoid junction, and anus |
| Z85.820 | Personal history of malignant melanoma of skin |

Group 5 Paragraph:

CPT Code 81218 (CEBPA) is considered medically necessary for the following ICD-10-CM codes:

Group 5 Codes: (28 Codes)

| CODE | DESCRIPTION |
|--------|---|
| C92.00 | Acute myeloblastic leukemia, not having achieved remission |
| C92.02 | Acute myeloblastic leukemia, in relapse |
| C92.30 | Myeloid sarcoma, not having achieved remission |
| C92.32 | Myeloid sarcoma, in relapse |
| C92.40 | Acute promyelocytic leukemia, not having achieved remission |

| CODE | DESCRIPTION |
|--------|---|
| C92.42 | Acute promyelocytic leukemia, in relapse |
| C92.50 | Acute myelomonocytic leukemia, not having achieved remission |
| C92.52 | Acute myelomonocytic leukemia, in relapse |
| C92.60 | Acute myeloid leukemia with 11q23-abnormality not having achieved remission |
| C92.62 | Acute myeloid leukemia with 11q23-abnormality in relapse |
| C92.A0 | Acute myeloid leukemia with multilineage dysplasia, not having achieved remission |
| C92.A2 | Acute myeloid leukemia with multilineage dysplasia, in relapse |
| C92.Z0 | Other myeloid leukemia not having achieved remission |
| C92.Z2 | Other myeloid leukemia, in relapse |
| C92.90 | Myeloid leukemia, unspecified, not having achieved remission |
| C92.92 | Myeloid leukemia, unspecified in relapse |
| C93.00 | Acute monoblastic/monocytic leukemia, not having achieved remission |
| C93.02 | Acute monoblastic/monocytic leukemia, in relapse |
| C94.00 | Acute erythroid leukemia, not having achieved remission |
| C94.02 | Acute erythroid leukemia, in relapse |
| C94.80 | Other specified leukemias not having achieved remission |
| C94.82 | Other specified leukemias, in relapse |
| C95.00 | Acute leukemia of unspecified cell type not having achieved remission |
| C95.02 | Acute leukemia of unspecified cell type, in relapse |
| C95.90 | Leukemia, unspecified not having achieved remission |
| C95.92 | Leukemia, unspecified, in relapse |
| R16.1 | Splenomegaly, not elsewhere classified |
| R16.2 | Hepatomegaly with splenomegaly, not elsewhere classified |

Group 6 Paragraph:

CPT codes 81315 and 81316 PML/RARALPHA are considered medically necessary for the following ICD-10-CM codes:

Group 6 Codes: (3 Codes)

| CODE | DESCRIPTION |
|-----------------|--|
| C92.40 - C92.42 | Acute promyelocytic leukemia, not having achieved remission - Acute promyelocytic leukemia, in relapse |

Group 7 Paragraph:

CPT code 81225 (CYP2C19) is considered medically necessary for the following ICD-10-CM codes:

Group 7 Codes: (44 Codes)

| CODE | DESCRIPTION |
|---------|---|
| I20.0 | Unstable angina |
| I20.1 | Angina pectoris with documented spasm |
| I20.81 | Angina pectoris with coronary microvascular dysfunction |
| I20.89 | Other forms of angina pectoris |
| I20.9 | Angina pectoris, unspecified |
| I21.11 | ST elevation (STEMI) myocardial infarction involving right coronary artery |
| I21.19 | ST elevation (STEMI) myocardial infarction involving other coronary artery of inferior wall |
| I21.29 | ST elevation (STEMI) myocardial infarction involving other sites |
| I21.3 | ST elevation (STEMI) myocardial infarction of unspecified site |
| I21.4 | Non-ST elevation (NSTEMI) myocardial infarction |
| I24.0 | Acute coronary thrombosis not resulting in myocardial infarction |
| I24.1 | Dressler's syndrome |
| I24.81 | Acute coronary microvascular dysfunction |
| I24.89 | Other forms of acute ischemic heart disease |
| I24.9 | Acute ischemic heart disease, unspecified |
| I25.110 | Atherosclerotic heart disease of native coronary artery with unstable angina pectoris |
| I25.118 | Atherosclerotic heart disease of native coronary artery with other forms of angina pectoris |
| I25.119 | Atherosclerotic heart disease of native coronary artery with unspecified angina pectoris |
| I25.700 | Atherosclerosis of coronary artery bypass graft(s), unspecified, with unstable angina pectoris |
| I25.701 | Atherosclerosis of coronary artery bypass graft(s), unspecified, with angina pectoris with documented spasm |
| I25.708 | Atherosclerosis of coronary artery bypass graft(s), unspecified, with other forms of angina pectoris |
| I25.710 | Atherosclerosis of autologous vein coronary artery bypass graft(s) with unstable angina pectoris |
| I25.711 | Atherosclerosis of autologous vein coronary artery bypass graft(s) with angina pectoris with documented spasm |

| CODE | DESCRIPTION |
|-------------------|---|
| I25.718 | Atherosclerosis of autologous vein coronary artery bypass graft(s) with other forms of angina pectoris |
| I25.719 - I25.721 | Atherosclerosis of autologous vein coronary artery bypass graft(s) with unspecified angina pectoris - Atherosclerosis of autologous artery coronary artery bypass graft(s) with angina pectoris with documented spasm |
| I25.728 - I25.731 | Atherosclerosis of autologous artery coronary artery bypass graft(s) with other forms of angina pectoris - Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with angina pectoris with documented spasm |
| I25.738 | Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with other forms of angina pectoris |
| I25.739 | Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with unspecified angina pectoris |
| I25.750 | Atherosclerosis of native coronary artery of transplanted heart with unstable angina |
| I25.751 | Atherosclerosis of native coronary artery of transplanted heart with angina pectoris with documented spasm |
| I25.758 - I25.761 | Atherosclerosis of native coronary artery of transplanted heart with other forms of angina pectoris - Atherosclerosis of bypass graft of coronary artery of transplanted heart with angina pectoris with documented spasm |
| I25.769 | Atherosclerosis of bypass graft of coronary artery of transplanted heart with unspecified angina pectoris |
| I25.790 | Atherosclerosis of other coronary artery bypass graft(s) with unstable angina pectoris |
| I25.791 | Atherosclerosis of other coronary artery bypass graft(s) with angina pectoris with documented spasm |
| I25.798 | Atherosclerosis of other coronary artery bypass graft(s) with other forms of angina pectoris |
| I25.799 | Atherosclerosis of other coronary artery bypass graft(s) with unspecified angina pectoris |

Group 8 Paragraph:

CPT code 81226 (CYP2d6) is considered medically necessary for the following ICD-10-CM codes:
PLA code 0070U is effective for services, rendered on or after May 15, 2021.

Group 8 Codes: (2 Codes)

| CODE | DESCRIPTION |
|--------|----------------------|
| E75.22 | Gaucher disease |
| G10 | Huntington's disease |

Group 9 Paragraph:

CPT code 81235 (EGFR) is considered medically necessary for the following ICD-10-CM codes:

Group 9 Codes: (17 Codes)

| CODE | DESCRIPTION |
|--------------|---|
| C33 - C34.92 | Malignant neoplasm of trachea - Malignant neoplasm of unspecified part of left bronchus or lung |

Group 10 Paragraph:

CPT code 81245, 81246 (FLT3) are considered medically necessary for the following ICD-10-CM codes:

Group 10 Codes: (28 Codes)

| CODE | DESCRIPTION |
|--------|---|
| C92.00 | Acute myeloblastic leukemia, not having achieved remission |
| C92.02 | Acute myeloblastic leukemia, in relapse |
| C92.30 | Myeloid sarcoma, not having achieved remission |
| C92.32 | Myeloid sarcoma, in relapse |
| C92.40 | Acute promyelocytic leukemia, not having achieved remission |
| C92.42 | Acute promyelocytic leukemia, in relapse |
| C92.50 | Acute myelomonocytic leukemia, not having achieved remission |
| C92.52 | Acute myelomonocytic leukemia, in relapse |
| C92.60 | Acute myeloid leukemia with 11q23-abnormality not having achieved remission |
| C92.62 | Acute myeloid leukemia with 11q23-abnormality in relapse |
| C92.A0 | Acute myeloid leukemia with multilineage dysplasia, not having achieved remission |
| C92.A2 | Acute myeloid leukemia with multilineage dysplasia, in relapse |
| C92.Z0 | Other myeloid leukemia not having achieved remission |
| C92.Z2 | Other myeloid leukemia, in relapse |
| C92.90 | Myeloid leukemia, unspecified, not having achieved remission |
| C92.92 | Myeloid leukemia, unspecified in relapse |
| C93.00 | Acute monoblastic/monocytic leukemia, not having achieved remission |
| C93.02 | Acute monoblastic/monocytic leukemia, in relapse |
| C94.00 | Acute erythroid leukemia, not having achieved remission |

| CODE | DESCRIPTION |
|--------|---|
| C94.02 | Acute erythroid leukemia, in relapse |
| C94.80 | Other specified leukemias not having achieved remission |
| C94.82 | Other specified leukemias, in relapse |
| C95.00 | Acute leukemia of unspecified cell type not having achieved remission |
| C95.02 | Acute leukemia of unspecified cell type, in relapse |
| C95.90 | Leukemia, unspecified not having achieved remission |
| C95.92 | Leukemia, unspecified, in relapse |
| R16.1 | Splenomegaly, not elsewhere classified |
| R16.2 | Hepatomegaly with splenomegaly, not elsewhere classified |

Group 11 Paragraph:

CPT code 81256 (HFE) is considered medically necessary the following ICD-10-CM codes:

Group 11 Codes: (5 Codes)

| CODE | DESCRIPTION |
|---------|--|
| E83.10 | Disorder of iron metabolism, unspecified |
| E83.110 | Hereditary hemochromatosis |
| E83.118 | Other hemochromatosis |
| E83.119 | Hemochromatosis, unspecified |
| E83.19 | Other disorders of iron metabolism |

Group 12 Paragraph:

CPT codes 81261-81264 (IGH) are considered medically necessary for the following ICD-10-CM codes:

Group 12 Codes: (230 Codes)

| CODE | DESCRIPTION |
|-----------------|--|
| C82.00 - C83.99 | Follicular lymphoma grade I, unspecified site - Non-follicular (diffuse) lymphoma, unspecified, extranodal and solid organ sites |
| C85.10 - C85.99 | Unspecified B-cell lymphoma, unspecified site - Non-Hodgkin lymphoma, unspecified, extranodal and solid organ sites |
| C91.00 - C91.02 | Acute lymphoblastic leukemia not having achieved remission - Acute lymphoblastic leukemia, in relapse |
| C91.10 | Chronic lymphocytic leukemia of B-cell type not having achieved remission |
| C91.11 | Chronic lymphocytic leukemia of B-cell type in remission |

| CODE | DESCRIPTION |
|---------|---|
| C91.12 | Chronic lymphocytic leukemia of B-cell type in relapse |
| C95.10 | Chronic leukemia of unspecified cell type not having achieved remission |
| C95.11 | Chronic leukemia of unspecified cell type, in remission |
| C95.12 | Chronic leukemia of unspecified cell type, in relapse |
| D72.828 | Other elevated white blood cell count |
| D72.89 | Other specified disorders of white blood cells |

Group 13 Paragraph:

CPT codes 81270 (JAK2), 81338 (MPL), 81339 (MPL), 81279 (JAK2 exons 12 and 13), 81219 (CALR), and 0027U (JAK2 exons 12-15) are considered medically necessary for the following ICD-10-CM codes when criteria in Indications and Limitations of Coverage are met:

Group 13 Codes: (34 Codes)

| CODE | DESCRIPTION |
|--------|--|
| C88.80 | Other malignant immunoproliferative diseases not having achieved remission |
| C92.20 | Atypical chronic myeloid leukemia, BCR/ABL-negative, not having achieved remission |
| C92.22 | Atypical chronic myeloid leukemia, BCR/ABL-negative, in relapse |
| C93.10 | Chronic myelomonocytic leukemia not having achieved remission |
| C93.12 | Chronic myelomonocytic leukemia, in relapse |
| C93.Z0 | Other monocytic leukemia, not having achieved remission |
| C93.Z2 | Other monocytic leukemia, in relapse |
| C93.90 | Monocytic leukemia, unspecified, not having achieved remission |
| C93.92 | Monocytic leukemia, unspecified in relapse |
| C94.40 | Acute panmyelosis with myelofibrosis not having achieved remission |
| C94.41 | Acute panmyelosis with myelofibrosis, in remission |
| C94.42 | Acute panmyelosis with myelofibrosis, in relapse |
| C94.6 | Myelodysplastic disease, not elsewhere classified |
| C95.10 | Chronic leukemia of unspecified cell type not having achieved remission |
| C95.12 | Chronic leukemia of unspecified cell type, in relapse |
| C96.Z | Other specified malignant neoplasms of lymphoid, hematopoietic and related tissue |
| D45 | Polycythemia vera |
| D47.1 | Chronic myeloproliferative disease |

| CODE | DESCRIPTION |
|---------|---|
| D47.3 | Essential (hemorrhagic) thrombocythemia |
| D47.4 | Osteomyelofibrosis |
| D47.Z9 | Other specified neoplasms of uncertain behavior of lymphoid, hematopoietic and related tissue |
| D47.9 | Neoplasm of uncertain behavior of lymphoid, hematopoietic and related tissue, unspecified |
| D72.821 | Monocytosis (symptomatic) |
| D72.828 | Other elevated white blood cell count |
| D72.829 | Elevated white blood cell count, unspecified |
| D72.89 | Other specified disorders of white blood cells |
| D72.9 | Disorder of white blood cells, unspecified |
| D75.1 | Secondary polycythemia |
| D75.81 | Myelofibrosis |
| D75.89 | Other specified diseases of blood and blood-forming organs |
| D75.9 | Disease of blood and blood-forming organs, unspecified |
| D77 | Other disorders of blood and blood-forming organs in diseases classified elsewhere |
| R16.1 | Splenomegaly, not elsewhere classified |
| R16.2 | Hepatomegaly with splenomegaly, not elsewhere classified |

Group 14 Paragraph:

CPT code 81272 (KIT) is considered medically necessary for the following ICD-10-CM codes: CPT code 81273 (KIT) is considered medically necessary only for the diagnosis of mastocytosis.

Group 14 Codes: (101 Codes)

| CODE | DESCRIPTION |
|-----------------|--|
| C43.0 - C43.9 | Malignant melanoma of lip - Malignant melanoma of skin, unspecified |
| C49.A0 - C49.A9 | Gastrointestinal stromal tumor, unspecified site - Gastrointestinal stromal tumor of other sites |
| C92.00 | Acute myeloblastic leukemia, not having achieved remission |
| C92.02 | Acute myeloblastic leukemia, in relapse |
| C92.30 | Myeloid sarcoma, not having achieved remission |
| C92.32 | Myeloid sarcoma, in relapse |
| C92.40 | Acute promyelocytic leukemia, not having achieved remission |

| CODE | DESCRIPTION |
|------------------|---|
| C92.42 | Acute promyelocytic leukemia, in relapse |
| C92.50 | Acute myelomonocytic leukemia, not having achieved remission |
| C92.52 | Acute myelomonocytic leukemia, in relapse |
| C92.60 | Acute myeloid leukemia with 11q23-abnormality not having achieved remission |
| C92.62 | Acute myeloid leukemia with 11q23-abnormality in relapse |
| C92.A0 | Acute myeloid leukemia with multilineage dysplasia, not having achieved remission |
| C92.A2 | Acute myeloid leukemia with multilineage dysplasia, in relapse |
| C92.Z0 | Other myeloid leukemia not having achieved remission |
| C92.Z2 | Other myeloid leukemia, in relapse |
| C92.90 | Myeloid leukemia, unspecified, not having achieved remission |
| C92.92 | Myeloid leukemia, unspecified in relapse |
| C93.00 | Acute monoblastic/monocytic leukemia, not having achieved remission |
| C93.02 | Acute monoblastic/monocytic leukemia, in relapse |
| C94.00 | Acute erythroid leukemia, not having achieved remission |
| C94.02 | Acute erythroid leukemia, in relapse |
| C94.80 | Other specified leukemias not having achieved remission |
| C94.82 | Other specified leukemias, in relapse |
| C95.00 | Acute leukemia of unspecified cell type not having achieved remission |
| C95.02 | Acute leukemia of unspecified cell type, in relapse |
| C95.90 | Leukemia, unspecified not having achieved remission |
| C95.92 | Leukemia, unspecified, in relapse |
| C96.20 | Malignant mast cell neoplasm, unspecified |
| C96.21 | Aggressive systemic mastocytosis |
| C96.22 | Mast cell sarcoma |
| C96.29 | Other malignant mast cell neoplasm |
| D03.0 - D03.9 | Melanoma in situ of lip - Melanoma in situ, unspecified |
| D47.01 | Cutaneous mastocytosis |
| D47.02 | Systemic mastocytosis |
| D47.09 | Other mast cell neoplasms of uncertain behavior |
| D48.110 - D48.19 | Desmoid tumor of head and neck - Other specified neoplasm of uncertain behavior of connective and other soft tissue |
| R16.1 | Splenomegaly, not elsewhere classified |

| CODE | DESCRIPTION |
|---------|--|
| R16.2 | Hepatomegaly with splenomegaly, not elsewhere classified |
| Z85.820 | Personal history of malignant melanoma of skin |

Group 15 Paragraph:

CPT code 81275 and 81276 (KRAS) are considered medically necessary for the following ICD-10-CM codes:

Group 15 Codes: (40 Codes)

| CODE | DESCRIPTION |
|---------------|---|
| C17.0 - C17.9 | Malignant neoplasm of duodenum - Malignant neoplasm of small intestine, unspecified |
| C18.0 - C19 | Malignant neoplasm of cecum - Malignant neoplasm of rectosigmoid junction |
| C20 | Malignant neoplasm of rectum |
| C21.1 | Malignant neoplasm of anal canal |
| C21.2 | Malignant neoplasm of cloacogenic zone |
| C21.8 | Malignant neoplasm of overlapping sites of rectum, anus and anal canal |
| C33 - C34.92 | Malignant neoplasm of trachea - Malignant neoplasm of unspecified part of left bronchus or lung |
| Z85.038 | Personal history of other malignant neoplasm of large intestine |
| Z85.048 | Personal history of other malignant neoplasm of rectum, rectosigmoid junction, and anus |

Group 16 Paragraph:

CPT code 81287 (MGMT) is considered medically necessary for the following ICD-10-CM codes:

Group 16 Codes: (10 Codes)

| CODE | DESCRIPTION |
|---------------|--|
| C71.0 - C71.9 | Malignant neoplasm of cerebrum, except lobes and ventricles - Malignant neoplasm of brain, unspecified |

Group 17 Paragraph:

CPT code 81301 Microsatellite instability analysis (e.g., hereditary non-polyposis colorectal cancer, Lynch syndrome) is considered medically necessary for the following ICD-10-CM codes:

Group 17 Codes: (40 Codes)

| CODE | DESCRIPTION |
|---------------|---|
| C17.0 - C17.9 | Malignant neoplasm of duodenum - Malignant neoplasm of small intestine, unspecified |
| C18.0 - C19 | Malignant neoplasm of cecum - Malignant neoplasm of rectosigmoid junction |
| C20 | Malignant neoplasm of rectum |
| C21.1 | Malignant neoplasm of anal canal |
| C21.2 | Malignant neoplasm of cloacogenic zone |
| C21.8 | Malignant neoplasm of overlapping sites of rectum, anus and anal canal |
| C33 - C34.92 | Malignant neoplasm of trachea - Malignant neoplasm of unspecified part of left bronchus or lung |
| Z85.038 | Personal history of other malignant neoplasm of large intestine |
| Z85.048 | Personal history of other malignant neoplasm of rectum, rectosigmoid junction, and anus |

Group 18 Paragraph:

CPT Code 81311 (NRAS) is considered medically necessary for the following ICD-10-CM codes

Group 18 Codes: (23 Codes)

| CODE | DESCRIPTION |
|---------------|---|
| C17.0 - C17.9 | Malignant neoplasm of duodenum - Malignant neoplasm of small intestine, unspecified |
| C18.0 - C19 | Malignant neoplasm of cecum - Malignant neoplasm of rectosigmoid junction |
| C20 | Malignant neoplasm of rectum |
| C21.1 | Malignant neoplasm of anal canal |
| C21.2 | Malignant neoplasm of cloacogenic zone |
| C21.8 | Malignant neoplasm of overlapping sites of rectum, anus and anal canal |
| Z85.038 | Personal history of other malignant neoplasm of large intestine |
| Z85.048 | Personal history of other malignant neoplasm of rectum, rectosigmoid junction, and anus |

Group 19 Paragraph:

CPT Code 81314 (PDGFRA only) is considered medically necessary for the following ICD-10-CM codes:

Group 19 Codes: (24 Codes)

| CODE | DESCRIPTION |
|------------------|--|
| C49.A0 - C49.A9 | Gastrointestinal stromal tumor, unspecified site - Gastrointestinal stromal tumor of other sites |
| C92.10 - C92.12 | Chronic myeloid leukemia, BCR/ABL-positive, not having achieved remission - Chronic myeloid leukemia, BCR/ABL-positive, in relapse |
| C93.10 - C93.12 | Chronic myelomonocytic leukemia not having achieved remission - Chronic myelomonocytic leukemia, in relapse |
| D48.110 - D48.19 | Desmoid tumor of head and neck - Other specified neoplasm of uncertain behavior of connective and other soft tissue |

Group 20 Paragraph:

CPT code 81332 (SERPINA1) is considered medically necessary for the following ICD-10-CM code:

Group 20 Codes: (1 Code)

| CODE | DESCRIPTION |
|--------|--------------------------------|
| E88.01 | Alpha-1-antitrypsin deficiency |

Group 21 Paragraph:

CPT codes 81340 (TRB@, PCR), 81341 (TRB@ Southern blot), and 81342 (TRG@) are considered medically necessary for the following ICD-10-CM codes:

Group 21 Codes: (23 Codes)

| CODE | DESCRIPTION |
|-----------------|---|
| C91.00 - C91.02 | Acute lymphoblastic leukemia not having achieved remission - Acute lymphoblastic leukemia, in relapse |
| C95.90 - C95.92 | Leukemia, unspecified not having achieved remission - Leukemia, unspecified, in relapse |
| C96.20 | Malignant mast cell neoplasm, unspecified |
| C96.21 | Aggressive systemic mastocytosis |
| C96.22 | Mast cell sarcoma |
| C96.29 | Other malignant mast cell neoplasm |
| D47.01 | Cutaneous mastocytosis |
| D47.02 | Systemic mastocytosis |
| D47.09 | Other mast cell neoplasms of uncertain behavior |
| D60.0 | Chronic acquired pure red cell aplasia |
| D60.1 | Transient acquired pure red cell aplasia |

| CODE | DESCRIPTION |
|--------|--|
| D60.8 | Other acquired pure red cell aplasias |
| D61.01 | Constitutional (pure) red blood cell aplasia |
| D61.09 | Other constitutional aplastic anemia |
| D61.1 | Drug-induced aplastic anemia |
| D61.2 | Aplastic anemia due to other external agents |
| D61.3 | Idiopathic aplastic anemia |
| D61.89 | Other specified aplastic anemias and other bone marrow failure syndromes |
| D61.9 | Aplastic anemia, unspecified |

Group 22 Paragraph:

CPT code 81168 CCND1/IGH is considered medically necessary for patients who have non- Hodgkin's lymphoma.

Group 22 Codes: (43 Codes)

| CODE | DESCRIPTION |
|-----------------|---|
| C85.10 - C85.99 | Unspecified B-cell lymphoma, unspecified site - Non-Hodgkin lymphoma, unspecified, extranodal and solid organ sites |

Group 23 Paragraph:

CPT codes 81404 and 81405 (RET- MEN Types 2B (81404) and 2A (81405) are considered medically necessary for the following ICD-10-CM codes:

Group 23 Codes: (6 Codes)

| CODE | DESCRIPTION |
|-----------------|--|
| C73 | Malignant neoplasm of thyroid gland |
| C74.10 - C74.12 | Malignant neoplasm of medulla of unspecified adrenal gland - Malignant neoplasm of medulla of left adrenal gland |
| C75.0 | Malignant neoplasm of parathyroid gland |
| D35.1 | Benign neoplasm of parathyroid gland |

Group 24 Paragraph:

CPT code 81406 (ATP7B) is considered medically necessary for the following ICD-10-CM code:

Group 24 Codes: (1 Code)

| CODE | DESCRIPTION |
|--------|------------------|
| E83.01 | Wilson's disease |

Group 25 Paragraph:

CPT codes 81518, 81519, 81522, 81523 (Oncology, breast mRNA) and CPT 81520 Prosigna® Breast Cancer Prognostic Gene Signature Assay are considered medically necessary for the following ICD-10-CM codes:

Group 25 Codes: (67 Codes)

| CODE | DESCRIPTION |
|---------|---|
| C50.011 | Malignant neoplasm of nipple and areola, right female breast |
| C50.012 | Malignant neoplasm of nipple and areola, left female breast |
| C50.019 | Malignant neoplasm of nipple and areola, unspecified female breast |
| C50.021 | Malignant neoplasm of nipple and areola, right male breast |
| C50.022 | Malignant neoplasm of nipple and areola, left male breast |
| C50.029 | Malignant neoplasm of nipple and areola, unspecified male breast |
| C50.111 | Malignant neoplasm of central portion of right female breast |
| C50.112 | Malignant neoplasm of central portion of left female breast |
| C50.119 | Malignant neoplasm of central portion of unspecified female breast |
| C50.121 | Malignant neoplasm of central portion of right male breast |
| C50.122 | Malignant neoplasm of central portion of left male breast |
| C50.129 | Malignant neoplasm of central portion of unspecified male breast |
| C50.211 | Malignant neoplasm of upper-inner quadrant of right female breast |
| C50.212 | Malignant neoplasm of upper-inner quadrant of left female breast |
| C50.219 | Malignant neoplasm of upper-inner quadrant of unspecified female breast |
| C50.221 | Malignant neoplasm of upper-inner quadrant of right male breast |
| C50.222 | Malignant neoplasm of upper-inner quadrant of left male breast |
| C50.229 | Malignant neoplasm of upper-inner quadrant of unspecified male breast |
| C50.311 | Malignant neoplasm of lower-inner quadrant of right female breast |
| C50.312 | Malignant neoplasm of lower-inner quadrant of left female breast |
| C50.319 | Malignant neoplasm of lower-inner quadrant of unspecified female breast |
| C50.321 | Malignant neoplasm of lower-inner quadrant of right male breast |
| C50.322 | Malignant neoplasm of lower-inner quadrant of left male breast |
| C50.329 | Malignant neoplasm of lower-inner quadrant of unspecified male breast |
| C50.411 | Malignant neoplasm of upper-outer quadrant of right female breast |

| CODE | DESCRIPTION |
|---------|---|
| C50.412 | Malignant neoplasm of upper-outer quadrant of left female breast |
| C50.419 | Malignant neoplasm of upper-outer quadrant of unspecified female breast |
| C50.421 | Malignant neoplasm of upper-outer quadrant of right male breast |
| C50.422 | Malignant neoplasm of upper-outer quadrant of left male breast |
| C50.429 | Malignant neoplasm of upper-outer quadrant of unspecified male breast |
| C50.511 | Malignant neoplasm of lower-outer quadrant of right female breast |
| C50.512 | Malignant neoplasm of lower-outer quadrant of left female breast |
| C50.519 | Malignant neoplasm of lower-outer quadrant of unspecified female breast |
| C50.521 | Malignant neoplasm of lower-outer quadrant of right male breast |
| C50.522 | Malignant neoplasm of lower-outer quadrant of left male breast |
| C50.529 | Malignant neoplasm of lower-outer quadrant of unspecified male breast |
| C50.611 | Malignant neoplasm of axillary tail of right female breast |
| C50.612 | Malignant neoplasm of axillary tail of left female breast |
| C50.619 | Malignant neoplasm of axillary tail of unspecified female breast |
| C50.621 | Malignant neoplasm of axillary tail of right male breast |
| C50.622 | Malignant neoplasm of axillary tail of left male breast |
| C50.629 | Malignant neoplasm of axillary tail of unspecified male breast |
| C50.811 | Malignant neoplasm of overlapping sites of right female breast |
| C50.812 | Malignant neoplasm of overlapping sites of left female breast |
| C50.819 | Malignant neoplasm of overlapping sites of unspecified female breast |
| C50.821 | Malignant neoplasm of overlapping sites of right male breast |
| C50.822 | Malignant neoplasm of overlapping sites of left male breast |
| C50.829 | Malignant neoplasm of overlapping sites of unspecified male breast |
| C50.911 | Malignant neoplasm of unspecified site of right female breast |
| C50.912 | Malignant neoplasm of unspecified site of left female breast |
| C50.919 | Malignant neoplasm of unspecified site of unspecified female breast |
| C50.921 | Malignant neoplasm of unspecified site of right male breast |
| C50.922 | Malignant neoplasm of unspecified site of left male breast |
| C50.929 | Malignant neoplasm of unspecified site of unspecified male breast |
| D05.00 | Lobular carcinoma in situ of unspecified breast |
| D05.01 | Lobular carcinoma in situ of right breast |
| D05.02 | Lobular carcinoma in situ of left breast |

| CODE | DESCRIPTION |
|--------|---|
| D05.10 | Intraductal carcinoma in situ of unspecified breast |
| D05.11 | Intraductal carcinoma in situ of right breast |
| D05.12 | Intraductal carcinoma in situ of left breast |
| D05.80 | Other specified type of carcinoma in situ of unspecified breast |
| D05.81 | Other specified type of carcinoma in situ of right breast |
| D05.82 | Other specified type of carcinoma in situ of left breast |
| D05.90 | Unspecified type of carcinoma in situ of unspecified breast |
| D05.91 | Unspecified type of carcinoma in situ of right breast |
| D05.92 | Unspecified type of carcinoma in situ of left breast |
| Z17.0 | Estrogen receptor positive status [ER+] |

Group 26 Paragraph:

CPT code 81595 Cardiology (heart transplant), mRNA is considered medically necessary for the following ICD-10-CM codes:

Group 26 Codes: (2 Codes)

| CODE | DESCRIPTION |
|--------|--|
| Z48.21 | Encounter for aftercare following heart transplant |
| Z94.1 | Heart transplant status |

Group 27 Paragraph:

CPT code 81310 NPM1 (nucleophosmin) is considered medically necessary for the following ICD-10-CM codes:

Group 27 Codes: (28 Codes)

| CODE | DESCRIPTION |
|--------|---|
| C92.00 | Acute myeloblastic leukemia, not having achieved remission |
| C92.02 | Acute myeloblastic leukemia, in relapse |
| C92.30 | Myeloid sarcoma, not having achieved remission |
| C92.32 | Myeloid sarcoma, in relapse |
| C92.40 | Acute promyelocytic leukemia, not having achieved remission |
| C92.42 | Acute promyelocytic leukemia, in relapse |
| C92.50 | Acute myelomonocytic leukemia, not having achieved remission |
| C92.52 | Acute myelomonocytic leukemia, in relapse |
| C92.60 | Acute myeloid leukemia with 11q23-abnormality not having achieved remission |

| CODE | DESCRIPTION |
|--------|---|
| C92.62 | Acute myeloid leukemia with 11q23-abnormality in relapse |
| C92.A0 | Acute myeloid leukemia with multilineage dysplasia, not having achieved remission |
| C92.A2 | Acute myeloid leukemia with multilineage dysplasia, in relapse |
| C92.Z0 | Other myeloid leukemia not having achieved remission |
| C92.Z2 | Other myeloid leukemia, in relapse |
| C92.90 | Myeloid leukemia, unspecified, not having achieved remission |
| C92.92 | Myeloid leukemia, unspecified in relapse |
| C93.00 | Acute monoblastic/monocytic leukemia, not having achieved remission |
| C93.02 | Acute monoblastic/monocytic leukemia, in relapse |
| C94.00 | Acute erythroid leukemia, not having achieved remission |
| C94.02 | Acute erythroid leukemia, in relapse |
| C94.80 | Other specified leukemias not having achieved remission |
| C94.82 | Other specified leukemias, in relapse |
| C95.00 | Acute leukemia of unspecified cell type not having achieved remission |
| C95.02 | Acute leukemia of unspecified cell type, in relapse |
| C95.90 | Leukemia, unspecified not having achieved remission |
| C95.92 | Leukemia, unspecified, in relapse |
| R16.1 | Splenomegaly, not elsewhere classified |
| R16.2 | Hepatomegaly with splenomegaly, not elsewhere classified |

Group 28 Paragraph:

CPT codes 81352 TP53 (tumor protein 53) (e.g. tumor samples), targeted sequence analysis of 2-5 exons, and CPT code 81351 TP53 (tumor protein 53) (e.g. Li-Fraumeni syndrome, tumor samples), full gene sequence or targeted sequence analysis of >5 exons are considered medically necessary for the following ICD-10-CM codes

Group 28 Codes: (84 Codes)

| CODE | DESCRIPTION |
|--------|--|
| C88.80 | Other malignant immunoproliferative diseases not having achieved remission |
| C91.10 | Chronic lymphocytic leukemia of B-cell type not having achieved remission |
| C91.11 | Chronic lymphocytic leukemia of B-cell type in remission |
| C91.12 | Chronic lymphocytic leukemia of B-cell type in relapse |
| C92.00 | Acute myeloblastic leukemia, not having achieved remission |
| C92.02 | Acute myeloblastic leukemia, in relapse |

| CODE | DESCRIPTION |
|--------|--|
| C92.20 | Atypical chronic myeloid leukemia, BCR/ABL-negative, not having achieved remission |
| C92.22 | Atypical chronic myeloid leukemia, BCR/ABL-negative, in relapse |
| C92.30 | Myeloid sarcoma, not having achieved remission |
| C92.32 | Myeloid sarcoma, in relapse |
| C92.40 | Acute promyelocytic leukemia, not having achieved remission |
| C92.42 | Acute promyelocytic leukemia, in relapse |
| C92.50 | Acute myelomonocytic leukemia, not having achieved remission |
| C92.52 | Acute myelomonocytic leukemia, in relapse |
| C92.60 | Acute myeloid leukemia with 11q23-abnormality not having achieved remission |
| C92.62 | Acute myeloid leukemia with 11q23-abnormality in relapse |
| C92.A0 | Acute myeloid leukemia with multilineage dysplasia, not having achieved remission |
| C92.A2 | Acute myeloid leukemia with multilineage dysplasia, in relapse |
| C92.Z0 | Other myeloid leukemia not having achieved remission |
| C92.Z2 | Other myeloid leukemia, in relapse |
| C92.90 | Myeloid leukemia, unspecified, not having achieved remission |
| C92.92 | Myeloid leukemia, unspecified in relapse |
| C93.00 | Acute monoblastic/monocytic leukemia, not having achieved remission |
| C93.02 | Acute monoblastic/monocytic leukemia, in relapse |
| C93.10 | Chronic myelomonocytic leukemia not having achieved remission |
| C93.12 | Chronic myelomonocytic leukemia, in relapse |
| C93.Z0 | Other monocytic leukemia, not having achieved remission |
| C93.Z2 | Other monocytic leukemia, in relapse |
| C93.90 | Monocytic leukemia, unspecified, not having achieved remission |
| C93.92 | Monocytic leukemia, unspecified in relapse |
| C94.00 | Acute erythroid leukemia, not having achieved remission |
| C94.02 | Acute erythroid leukemia, in relapse |
| C94.40 | Acute panmyelosis with myelofibrosis not having achieved remission |
| C94.41 | Acute panmyelosis with myelofibrosis, in remission |
| C94.42 | Acute panmyelosis with myelofibrosis, in relapse |
| C94.6 | Myelodysplastic disease, not elsewhere classified |
| C94.80 | Other specified leukemias not having achieved remission |

| CODE | DESCRIPTION |
|---------|---|
| C94.82 | Other specified leukemias, in relapse |
| C95.00 | Acute leukemia of unspecified cell type not having achieved remission |
| C95.02 | Acute leukemia of unspecified cell type, in relapse |
| C95.10 | Chronic leukemia of unspecified cell type not having achieved remission |
| C95.12 | Chronic leukemia of unspecified cell type, in relapse |
| C95.90 | Leukemia, unspecified not having achieved remission |
| C95.92 | Leukemia, unspecified, in relapse |
| C96.Z | Other specified malignant neoplasms of lymphoid, hematopoietic and related tissue |
| C96.9 | Malignant neoplasm of lymphoid, hematopoietic and related tissue, unspecified |
| D45 | Polycythemia vera |
| D46.0 | Refractory anemia without ring sideroblasts, so stated |
| D46.1 | Refractory anemia with ring sideroblasts |
| D46.20 | Refractory anemia with excess of blasts, unspecified |
| D46.21 | Refractory anemia with excess of blasts 1 |
| D46.22 | Refractory anemia with excess of blasts 2 |
| D46.A | Refractory cytopenia with multilineage dysplasia |
| D46.B | Refractory cytopenia with multilineage dysplasia and ring sideroblasts |
| D46.C | Myelodysplastic syndrome with isolated del(5q) chromosomal abnormality |
| D46.4 | Refractory anemia, unspecified |
| D46.Z | Other myelodysplastic syndromes |
| D46.9 | Myelodysplastic syndrome, unspecified |
| D47.1 | Chronic myeloproliferative disease |
| D47.3 | Essential (hemorrhagic) thrombocythemia |
| D47.4 | Osteomyelofibrosis |
| D47.Z9 | Other specified neoplasms of uncertain behavior of lymphoid, hematopoietic and related tissue |
| D47.9 | Neoplasm of uncertain behavior of lymphoid, hematopoietic and related tissue, unspecified |
| D61.818 | Other pancytopenia |
| D69.49 | Other primary thrombocytopenia |
| D69.6 | Thrombocytopenia, unspecified |
| D69.8 | Other specified hemorrhagic conditions |

| CODE | DESCRIPTION |
|---------|--|
| D69.9 | Hemorrhagic condition, unspecified |
| D70.8 | Other neutropenia |
| D70.9 | Neutropenia, unspecified |
| D72.810 | Lymphocytopenia |
| D72.818 | Other decreased white blood cell count |
| D72.819 | Decreased white blood cell count, unspecified |
| D72.821 | Monocytosis (symptomatic) |
| D72.828 | Other elevated white blood cell count |
| D72.829 | Elevated white blood cell count, unspecified |
| D72.89 | Other specified disorders of white blood cells |
| D72.9 | Disorder of white blood cells, unspecified |
| D75.81 | Myelofibrosis |
| D75.89 | Other specified diseases of blood and blood-forming organs |
| D75.9 | Disease of blood and blood-forming organs, unspecified |
| D77 | Other disorders of blood and blood-forming organs in diseases classified elsewhere |
| R16.1 | Splenomegaly, not elsewhere classified |
| R16.2 | Hepatomegaly with splenomegaly, not elsewhere classified |

Group 29 Paragraph:

CPT code 81335 TPMT gene is considered medically necessary for the following ICD-10-CM codes:

Group 29 Codes: (12 Codes)

| CODE | DESCRIPTION |
|-----------------|---|
| C91.00 - C91.02 | Acute lymphoblastic leukemia not having achieved remission - Acute lymphoblastic leukemia, in relapse |
| C91.12 | Chronic lymphocytic leukemia of B-cell type in relapse |
| C91.30 | Prolymphocytic leukemia of B-cell type not having achieved remission |
| C91.40 | Hairy cell leukemia not having achieved remission |
| C91.50 | Adult T-cell lymphoma/leukemia (HTLV-1-associated) not having achieved remission |
| C91.60 | Prolymphocytic leukemia of T-cell type not having achieved remission |
| C91.A0 | Mature B-cell leukemia Burkitt-type not having achieved remission |
| C91.Z0 | Other lymphoid leukemia not having achieved remission |

| CODE | DESCRIPTION |
|--------|--|
| K50.00 | Crohn's disease of small intestine without complications |
| Z94.84 | Stem cells transplant status |

Group 30 Paragraph:

CPT code 81334 RUNX1 gene is considered medically necessary for the following ICD-10-CM codes:

Group 30 Codes: (63 Codes)

| CODE | DESCRIPTION |
|--------|---|
| C92.00 | Acute myeloblastic leukemia, not having achieved remission |
| C92.02 | Acute myeloblastic leukemia, in relapse |
| C92.30 | Myeloid sarcoma, not having achieved remission |
| C92.32 | Myeloid sarcoma, in relapse |
| C92.40 | Acute promyelocytic leukemia, not having achieved remission |
| C92.42 | Acute promyelocytic leukemia, in relapse |
| C92.50 | Acute myelomonocytic leukemia, not having achieved remission |
| C92.52 | Acute myelomonocytic leukemia, in relapse |
| C92.60 | Acute myeloid leukemia with 11q23-abnormality not having achieved remission |
| C92.62 | Acute myeloid leukemia with 11q23-abnormality in relapse |
| C92.A0 | Acute myeloid leukemia with multilineage dysplasia, not having achieved remission |
| C92.A2 | Acute myeloid leukemia with multilineage dysplasia, in relapse |
| C92.Z0 | Other myeloid leukemia not having achieved remission |
| C92.Z2 | Other myeloid leukemia, in relapse |
| C92.90 | Myeloid leukemia, unspecified, not having achieved remission |
| C92.92 | Myeloid leukemia, unspecified in relapse |
| C93.00 | Acute monoblastic/monocytic leukemia, not having achieved remission |
| C93.02 | Acute monoblastic/monocytic leukemia, in relapse |
| C93.10 | Chronic myelomonocytic leukemia not having achieved remission |
| C93.12 | Chronic myelomonocytic leukemia, in relapse |
| C93.Z0 | Other monocytic leukemia, not having achieved remission |
| C93.Z2 | Other monocytic leukemia, in relapse |
| C93.90 | Monocytic leukemia, unspecified, not having achieved remission |
| C93.92 | Monocytic leukemia, unspecified in relapse |

| CODE | DESCRIPTION |
|---------|---|
| C94.00 | Acute erythroid leukemia, not having achieved remission |
| C94.02 | Acute erythroid leukemia, in relapse |
| C94.6 | Myelodysplastic disease, not elsewhere classified |
| C94.80 | Other specified leukemias not having achieved remission |
| C94.82 | Other specified leukemias, in relapse |
| C95.00 | Acute leukemia of unspecified cell type not having achieved remission |
| C95.02 | Acute leukemia of unspecified cell type, in relapse |
| C95.10 | Chronic leukemia of unspecified cell type not having achieved remission |
| C95.12 | Chronic leukemia of unspecified cell type, in relapse |
| C95.90 | Leukemia, unspecified not having achieved remission |
| C95.92 | Leukemia, unspecified, in relapse |
| C96.Z | Other specified malignant neoplasms of lymphoid, hematopoietic and related tissue |
| C96.9 | Malignant neoplasm of lymphoid, hematopoietic and related tissue, unspecified |
| D46.0 | Refractory anemia without ring sideroblasts, so stated |
| D46.1 | Refractory anemia with ring sideroblasts |
| D46.20 | Refractory anemia with excess of blasts, unspecified |
| D46.21 | Refractory anemia with excess of blasts 1 |
| D46.22 | Refractory anemia with excess of blasts 2 |
| D46.A | Refractory cytopenia with multilineage dysplasia |
| D46.B | Refractory cytopenia with multilineage dysplasia and ring sideroblasts |
| D46.C | Myelodysplastic syndrome with isolated del(5q) chromosomal abnormality |
| D46.4 | Refractory anemia, unspecified |
| D46.Z | Other myelodysplastic syndromes |
| D46.9 | Myelodysplastic syndrome, unspecified |
| D61.818 | Other pancytopenia |
| D69.49 | Other primary thrombocytopenia |
| D69.6 | Thrombocytopenia, unspecified |
| D69.8 | Other specified hemorrhagic conditions |
| D69.9 | Hemorrhagic condition, unspecified |
| D70.8 | Other neutropenia |
| D70.9 | Neutropenia, unspecified |
| D72.810 | Lymphocytopenia |

| CODE | DESCRIPTION |
|---------|--|
| D72.818 | Other decreased white blood cell count |
| D72.819 | Decreased white blood cell count, unspecified |
| D75.89 | Other specified diseases of blood and blood-forming organs |
| D75.9 | Disease of blood and blood-forming organs, unspecified |
| D77 | Other disorders of blood and blood-forming organs in diseases classified elsewhere |
| R16.1 | Splenomegaly, not elsewhere classified |
| R16.2 | Hepatomegaly with splenomegaly, not elsewhere classified |

Group 31 Paragraph:

CPT codes 81175-81176-ASXL1 gene is considered medically necessary for the following ICD-10-CM codes:

Group 31 Codes: (81 Codes)

| CODE | DESCRIPTION |
|--------|--|
| C88.80 | Other malignant immunoproliferative diseases not having achieved remission |
| C92.00 | Acute myeloblastic leukemia, not having achieved remission |
| C92.02 | Acute myeloblastic leukemia, in relapse |
| C92.20 | Atypical chronic myeloid leukemia, BCR/ABL-negative, not having achieved remission |
| C92.22 | Atypical chronic myeloid leukemia, BCR/ABL-negative, in relapse |
| C92.30 | Myeloid sarcoma, not having achieved remission |
| C92.32 | Myeloid sarcoma, in relapse |
| C92.40 | Acute promyelocytic leukemia, not having achieved remission |
| C92.42 | Acute promyelocytic leukemia, in relapse |
| C92.50 | Acute myelomonocytic leukemia, not having achieved remission |
| C92.52 | Acute myelomonocytic leukemia, in relapse |
| C92.60 | Acute myeloid leukemia with 11q23-abnormality not having achieved remission |
| C92.62 | Acute myeloid leukemia with 11q23-abnormality in relapse |
| C92.A0 | Acute myeloid leukemia with multilineage dysplasia, not having achieved remission |
| C92.A2 | Acute myeloid leukemia with multilineage dysplasia, in relapse |
| C92.Z0 | Other myeloid leukemia not having achieved remission |
| C92.Z2 | Other myeloid leukemia, in relapse |
| C92.90 | Myeloid leukemia, unspecified, not having achieved remission |

| CODE | DESCRIPTION |
|--------|---|
| C92.92 | Myeloid leukemia, unspecified in relapse |
| C93.00 | Acute monoblastic/monocytic leukemia, not having achieved remission |
| C93.02 | Acute monoblastic/monocytic leukemia, in relapse |
| C93.10 | Chronic myelomonocytic leukemia not having achieved remission |
| C93.12 | Chronic myelomonocytic leukemia, in relapse |
| C93.Z0 | Other monocytic leukemia, not having achieved remission |
| C93.Z2 | Other monocytic leukemia, in relapse |
| C93.90 | Monocytic leukemia, unspecified, not having achieved remission |
| C93.92 | Monocytic leukemia, unspecified in relapse |
| C94.00 | Acute erythroid leukemia, not having achieved remission |
| C94.02 | Acute erythroid leukemia, in relapse |
| C94.40 | Acute panmyelosis with myelofibrosis not having achieved remission |
| C94.41 | Acute panmyelosis with myelofibrosis, in remission |
| C94.42 | Acute panmyelosis with myelofibrosis, in relapse |
| C94.6 | Myelodysplastic disease, not elsewhere classified |
| C94.80 | Other specified leukemias not having achieved remission |
| C94.82 | Other specified leukemias, in relapse |
| C95.00 | Acute leukemia of unspecified cell type not having achieved remission |
| C95.02 | Acute leukemia of unspecified cell type, in relapse |
| C95.10 | Chronic leukemia of unspecified cell type not having achieved remission |
| C95.12 | Chronic leukemia of unspecified cell type, in relapse |
| C95.90 | Leukemia, unspecified not having achieved remission |
| C95.92 | Leukemia, unspecified, in relapse |
| C96.Z | Other specified malignant neoplasms of lymphoid, hematopoietic and related tissue |
| C96.9 | Malignant neoplasm of lymphoid, hematopoietic and related tissue, unspecified |
| D45 | Polycythemia vera |
| D46.0 | Refractory anemia without ring sideroblasts, so stated |
| D46.1 | Refractory anemia with ring sideroblasts |
| D46.20 | Refractory anemia with excess of blasts, unspecified |
| D46.21 | Refractory anemia with excess of blasts 1 |
| D46.22 | Refractory anemia with excess of blasts 2 |
| D46.A | Refractory cytopenia with multilineage dysplasia |

| CODE | DESCRIPTION |
|---------|---|
| D46.B | Refractory cytopenia with multilineage dysplasia and ring sideroblasts |
| D46.C | Myelodysplastic syndrome with isolated del(5q) chromosomal abnormality |
| D46.4 | Refractory anemia, unspecified |
| D46.Z | Other myelodysplastic syndromes |
| D46.9 | Myelodysplastic syndrome, unspecified |
| D47.1 | Chronic myeloproliferative disease |
| D47.3 | Essential (hemorrhagic) thrombocythemia |
| D47.4 | Osteomyelofibrosis |
| D47.Z9 | Other specified neoplasms of uncertain behavior of lymphoid, hematopoietic and related tissue |
| D47.9 | Neoplasm of uncertain behavior of lymphoid, hematopoietic and related tissue, unspecified |
| D61.818 | Other pancytopenia |
| D69.49 | Other primary thrombocytopenia |
| D69.6 | Thrombocytopenia, unspecified |
| D69.8 | Other specified hemorrhagic conditions |
| D69.9 | Hemorrhagic condition, unspecified |
| D70.8 | Other neutropenia |
| D70.9 | Neutropenia, unspecified |
| D72.810 | Lymphocytopenia |
| D72.818 | Other decreased white blood cell count |
| D72.819 | Decreased white blood cell count, unspecified |
| D72.821 | Monocytosis (symptomatic) |
| D72.828 | Other elevated white blood cell count |
| D72.829 | Elevated white blood cell count, unspecified |
| D72.89 | Other specified disorders of white blood cells |
| D72.9 | Disorder of white blood cells, unspecified |
| D75.81 | Myelofibrosis |
| D75.89 | Other specified diseases of blood and blood-forming organs |
| D75.9 | Disease of blood and blood-forming organs, unspecified |
| D77 | Other disorders of blood and blood-forming organs in diseases classified elsewhere |
| R16.1 | Splenomegaly, not elsewhere classified |

| CODE | DESCRIPTION |
|-------|--|
| R16.2 | Hepatomegaly with splenomegaly, not elsewhere classified |

Group 32 Paragraph:

CPT codes 81120-81121, IDH1 and IDH2, are considered medically necessary for the following ICD-10-CM codes:

CPT code 81345, TERT, is considered medically necessary for C71.0-C71.9 only.

Group 32 Codes: (68 Codes)

| CODE | DESCRIPTION |
|---------------|--|
| C71.0 - C71.9 | Malignant neoplasm of cerebrum, except lobes and ventricles - Malignant neoplasm of brain, unspecified |
| C88.80 | Other malignant immunoproliferative diseases not having achieved remission |
| C92.00 | Acute myeloblastic leukemia, not having achieved remission |
| C92.02 | Acute myeloblastic leukemia, in relapse |
| C92.20 | Atypical chronic myeloid leukemia, BCR/ABL-negative, not having achieved remission |
| C92.22 | Atypical chronic myeloid leukemia, BCR/ABL-negative, in relapse |
| C92.30 | Myeloid sarcoma, not having achieved remission |
| C92.32 | Myeloid sarcoma, in relapse |
| C92.40 | Acute promyelocytic leukemia, not having achieved remission |
| C92.42 | Acute promyelocytic leukemia, in relapse |
| C92.50 | Acute myelomonocytic leukemia, not having achieved remission |
| C92.52 | Acute myelomonocytic leukemia, in relapse |
| C92.60 | Acute myeloid leukemia with 11q23-abnormality not having achieved remission |
| C92.62 | Acute myeloid leukemia with 11q23-abnormality in relapse |
| C92.A0 | Acute myeloid leukemia with multilineage dysplasia, not having achieved remission |
| C92.A2 | Acute myeloid leukemia with multilineage dysplasia, in relapse |
| C92.Z0 | Other myeloid leukemia not having achieved remission |
| C92.Z2 | Other myeloid leukemia, in relapse |
| C92.90 | Myeloid leukemia, unspecified, not having achieved remission |
| C92.92 | Myeloid leukemia, unspecified in relapse |
| C93.00 | Acute monoblastic/monocytic leukemia, not having achieved remission |
| C93.02 | Acute monoblastic/monocytic leukemia, in relapse |

| CODE | DESCRIPTION |
|---------|---|
| C93.10 | Chronic myelomonocytic leukemia not having achieved remission |
| C93.12 | Chronic myelomonocytic leukemia, in relapse |
| C93.Z0 | Other monocytic leukemia, not having achieved remission |
| C93.Z2 | Other monocytic leukemia, in relapse |
| C93.90 | Monocytic leukemia, unspecified, not having achieved remission |
| C93.92 | Monocytic leukemia, unspecified in relapse |
| C94.00 | Acute erythroid leukemia, not having achieved remission |
| C94.02 | Acute erythroid leukemia, in relapse |
| C94.40 | Acute panmyelosis with myelofibrosis not having achieved remission |
| C94.41 | Acute panmyelosis with myelofibrosis, in remission |
| C94.42 | Acute panmyelosis with myelofibrosis, in relapse |
| C94.80 | Other specified leukemias not having achieved remission |
| C94.82 | Other specified leukemias, in relapse |
| C95.00 | Acute leukemia of unspecified cell type not having achieved remission |
| C95.02 | Acute leukemia of unspecified cell type, in relapse |
| C95.10 | Chronic leukemia of unspecified cell type not having achieved remission |
| C95.12 | Chronic leukemia of unspecified cell type, in relapse |
| C95.90 | Leukemia, unspecified not having achieved remission |
| C95.92 | Leukemia, unspecified, in relapse |
| C96.Z | Other specified malignant neoplasms of lymphoid, hematopoietic and related tissue |
| D45 | Polycythemia vera |
| D47.1 | Chronic myeloproliferative disease |
| D47.3 | Essential (hemorrhagic) thrombocythemia |
| D47.4 | Osteomyelofibrosis |
| D47.Z9 | Other specified neoplasms of uncertain behavior of lymphoid, hematopoietic and related tissue |
| D47.9 | Neoplasm of uncertain behavior of lymphoid, hematopoietic and related tissue, unspecified |
| D72.821 | Monocytosis (symptomatic) |
| D72.828 | Other elevated white blood cell count |
| D72.829 | Elevated white blood cell count, unspecified |
| D72.89 | Other specified disorders of white blood cells |

| CODE | DESCRIPTION |
|--------|--|
| D72.9 | Disorder of white blood cells, unspecified |
| D75.81 | Myelofibrosis |
| D75.89 | Other specified diseases of blood and blood-forming organs |
| D75.9 | Disease of blood and blood-forming organs, unspecified |
| D77 | Other disorders of blood and blood-forming organs in diseases classified elsewhere |
| R16.1 | Splenomegaly, not elsewhere classified |
| R16.2 | Hepatomegaly with splenomegaly, not elsewhere classified |

Group 33 Paragraph:

CPT code 81305 MYD88 is considered medically necessary for the following ICD-10-CM codes:

Group 33 Codes: (21 Codes)

| CODE | DESCRIPTION |
|-----------------|---|
| C83.00 - C83.09 | Small cell B-cell lymphoma, unspecified site - Small cell B-cell lymphoma, extranodal and solid organ sites |
| C85.80 - C85.89 | Other specified types of non-Hodgkin lymphoma, unspecified site - Other specified types of non-Hodgkin lymphoma, extranodal and solid organ sites |
| C88.80 | Other malignant immunoproliferative diseases not having achieved remission |

Group 34 Paragraph:

Use CPT code 81227 CYP2C9 for individuals who have relapsing forms of multiple sclerosis. The following ICD-10-CM diagnosis code is effective for services rendered on or after July 1, 2020.

Group 34 Codes: (1 Code)

| CODE | DESCRIPTION |
|------|--------------------|
| G35 | Multiple sclerosis |

Group 35 Paragraph:

CPT code 81261, 81262, 81263, and 81264 (IGH) are considered medically necessary for the following ICD-10-CM diagnosis codes. Please use Modifier 91 as appropriate, based on the Medicare Claims Processing Manual Chapter 16, Laboratory Services Section 100.5.1. Modifier 91 may be is used *"to indicate that a test was performed more than once on the same day for the same patient., only when it is necessary to obtain multiple results in the course of treatment."*

Group 35 Codes: (230 Codes)

| CODE | DESCRIPTION |
|-----------------|--|
| C82.00 - C83.99 | Follicular lymphoma grade I, unspecified site - Non-follicular (diffuse) lymphoma, |

| CODE | DESCRIPTION |
|-----------------|---|
| | unspecified, extranodal and solid organ sites |
| C85.10 - C85.99 | Unspecified B-cell lymphoma, unspecified site - Non-Hodgkin lymphoma, unspecified, extranodal and solid organ sites |
| C91.00 - C91.02 | Acute lymphoblastic leukemia not having achieved remission - Acute lymphoblastic leukemia, in relapse |
| C91.10 | Chronic lymphocytic leukemia of B-cell type not having achieved remission |
| C91.11 | Chronic lymphocytic leukemia of B-cell type in remission |
| C91.12 | Chronic lymphocytic leukemia of B-cell type in relapse |
| C95.10 | Chronic leukemia of unspecified cell type not having achieved remission |
| C95.11 | Chronic leukemia of unspecified cell type, in remission |
| C95.12 | Chronic leukemia of unspecified cell type, in relapse |
| D72.828 | Other elevated white blood cell count |
| D72.89 | Other specified disorders of white blood cells |

ICD-10-CM Codes that DO NOT Support Medical Necessity

Group 1 Paragraph:

The following ICD-10-CM codes are considered non-covered for all molecular pathology procedures:

Group 1 Codes: (9 Codes)

| CODE | DESCRIPTION |
|---------|---|
| Z13.71 | Encounter for nonprocreative screening for genetic disease carrier status |
| Z13.79 | Encounter for other screening for genetic and chromosomal anomalies |
| Z31.430 | Encounter of female for testing for genetic disease carrier status for procreative management |
| Z31.438 | Encounter for other genetic testing of female for procreative management |
| Z31.440 | Encounter of male for testing for genetic disease carrier status for procreative management |
| Z31.441 | Encounter for testing of male partner of patient with recurrent pregnancy loss |
| Z31.448 | Encounter for other genetic testing of male for procreative management |
| Z31.5 | Encounter for procreative genetic counseling |
| Z36.0 | Encounter for antenatal screening for chromosomal anomalies |

ICD-10-PCS Codes

N/A

Additional ICD-10 Information

N/A

Bill Type Codes

Contractors may specify Bill Types to help providers identify those Bill Types typically used to report this service. Absence of a Bill Type does not guarantee that the article does not apply to that Bill Type. Complete absence of all Bill Types indicates that coverage is not influenced by Bill Type and the article should be assumed to apply equally to all claims.

N/A

Revenue Codes

Contractors may specify Revenue Codes to help providers identify those Revenue Codes typically used to report this service. In most instances Revenue Codes are purely advisory. Unless specified in the article, services reported under other Revenue Codes are equally subject to this coverage determination. Complete absence of all Revenue Codes indicates that coverage is not influenced by Revenue Code and the article should be assumed to apply equally to all Revenue Codes.

N/A

Other Coding Information

N/A

Revision History Information

| REVISION HISTORY DATE | REVISION HISTORY NUMBER | REVISION HISTORY EXPLANATION |
|-----------------------|-------------------------|--|
| 10/01/2024 | R26 | Due to the annual ICD-10-CM update, the ICD-10-CM code C88.8 has been deleted and replaced by C88.80 in the ICD-10-CM That Supports Medical Necessity section- Groups 13, 28, 31, 32, and 33, effective for services rendered on or after 10/1/2024. |
| 08/01/2024 | R25 | PLA code 0119U was added to CPT/HCPS Section- Group 5, effective for services rendered on or after 8/1/2024. |

| REVISION HISTORY DATE | REVISION HISTORY NUMBER | REVISION HISTORY EXPLANATION |
|-----------------------|-------------------------|--|
| 01/01/2024 | R24 | <p>- ICD-10-CM codes C91.10 and C91.11 have been added to the ICD-10-CM Codes that Support Medical Necessity section- Group 29.</p> <p>- Due to the 1/1/2024 CPT/HCPCS quarterly update, the following code descriptors have been changed in Group1- 81449 and 81456. Group 3- 81171, 81172, 81243, and 81244.</p> |
| 10/01/2023 | R23 | <p>Effective for services rendered on or after 10/1/2023, due to the annual ICD-10-CM update, the ICD-10-CM That Supports Medical Necessity section- Group 7 was updated with the following: diagnosis codes I20.8 was deleted and replaced by I20.81 and I20.89. Diagnosis code I24.8 was deleted and replaced by I24.81 and I24.89.</p> <p>The ICD-10-CM That Supports Medical Necessity section- Groups 14 and 19 was updated with the following: diagnosis codes: D48.1 was deleted and replaced by code range D48.110 through D48.19.</p> |
| 08/06/2023 | R22 | <p>Due to a typographical error in the Notice Period, the effective date has been moved to August 6, 2023.</p> |
| 08/01/2023 | R21 | <p>- Deleted CPT code 81352 from CPT/HCPS Section Group 2</p> <p>- Established Group 35 under the "ICD-10-CM Codes that Support Medical Necessity" section for CPT codes 81261-81264, effective for services rendered on or after August 1, 2023.</p> <p>- Added Modifier 91 to the CPT/HCPCS Modifier section. The 91 modifier is used for laboratory tests paid under the clinical laboratory fee schedule, as stated in the Medicare Claims Processing Manual Chapter 16, Laboratory Services Section 100.5.1.</p> <p>- Added the following Modifier 91 information to the Article Text:</p> <p>Modifier 91</p> <p>Please use Modifier 91 as appropriate, based on the Medicare Claims Processing Manual Chapter 16, Laboratory Services Section 100.5.1. Modifier 91 may be is used <i>"to indicate that a test was performed more than once on the same day for the same patient., only when it is necessary to obtain multiple results in the course of</i></p> |

| REVISION HISTORY DATE | REVISION HISTORY NUMBER | REVISION HISTORY EXPLANATION |
|-----------------------|-------------------------|---|
| | | <i>treatment."</i> |
| 01/01/2023 | R20 | <p>Added CPT codes 81449, 81451, and 81456 to Specific Coding of Molecular Testing Panels in the "Article Text" section.</p> <p>Added CPT codes 81418 and 81441 to the "CPT/HCPCS Code" section-Group 2 (Individual Review).</p> <p>Deleted the "ICD10 Codes That Support Medical Necessity " section- Group 6- CPT Code 81313 (PCA3). Please refer to L37733 Biomarker Testing for Prostate Cancer.</p> |
| 11/01/2022 | R19 | <p>CPT code 81313 has been removed from Group 1- Tier 1 Covered codes section (Please refer to L37733 Biomarkers for Prostate Cancer Diagnosis)</p> <p>CPT code 81551 has been removed from Group 3 Tier 1 Non-covered codes section (Please refer to L37733 Biomarkers for Prostate Cancer Diagnosis)</p> <p>Duplicative language currently in L35000 regarding medical necessity (Abstract and Indications of Coverage by CPT Code) have been removed from A56199. (Please refer to L35000)</p> |
| 10/01/2022 | R18 | <p>Due to the annual ICD-10-CM code update, the following codes had descriptor changes occur in the ICD-10-CM section that supports Medical Necessity.: C94.6 descriptor was changed in Group 14; C94.6 descriptor was changed in Group 29; C94.6 descriptor was changed in Group 31; C94.6 descriptor was changed in Group 32.</p> |
| 05/01/2022 | R17 | <p>5/1/2022 Correction: ICD-10-CM diagnosis code, C56.3 is effective for services rendered on or after 10/1/2021,</p> |
| 05/01/2022 | R16 | <p>Added ICD-10-CM diagnosis code C56.3 to the "ICD-10-CM Codes that Support Medical Necessity" section- Group1, effective for services rendered on or after 5/1/2022.</p> |
| 04/01/2022 | R15 | <p>The following, underlined language was added to the Correct Coding of Molecular Testing Panels under Specific Coding of Molecular Testing Panels in the Article text:</p> <p>CPT code 81455 should be billed when 51 or greater genes are ordered for molecular biomarkers. <u>Please refer to Local Coverage Determination L37810 Genomic Sequence Analysis Panels in the Treatment of Solid Organ Neoplasms and the associated Article A56867</u></p> |

| REVISION HISTORY DATE | REVISION HISTORY NUMBER | REVISION HISTORY EXPLANATION |
|-----------------------|-------------------------|---|
| | | CPT code 81455 was removed from CPT/HCPCS Code section-Group 3. |
| 01/01/2022 | R14 | <p>Due to the annual CPT/HCPCS code update, CPT code 81523 was added to the CPT/HCPCS Codes section- Group 1, and CPT code 81349 was added to the CPT/HCPCS Codes section- Group 3.</p> <p>CPT codes 81522 and 81523 were added to the "ICD-10-CM Codes that Support Medical Necessity" section- Group 26 paragraph, effective for services rendered on or after 1/1/2022.</p> |
| 11/30/2021 | R13 | CPT code 81546 was deleted from CPT/HCPCS Codes section- Group 2. Please refer to LCD L38968 Thyroid Nodule Molecular Testing and Billing and Coding Article A58656. |
| 05/15/2021 | R12 | <p><u>-The following clarifying guidance which was published on our website on 7/29/2021 regarding the Correct Coding of Molecular Testing Panels was added under Specific Coding of Molecular Testing Panels in the Article text above:</u></p> <p>The submission of claims using individual gene CPT codes, when either 5-50 or >50 gene panels are ordered, is considered incorrect coding. Correct coding requires that when a panel code is ordered, it should be billed, rather than the individual gene codes. CPT code 81445 or 81450 should be billed when 5 to 50 genes are ordered. CPT code 81455 should be billed when 51 or greater genes are ordered for molecular biomarkers. When a panel with greater than one or less than five genes is ordered, use the corresponding existing panel CPT code or CPT code 81479 if none exists.</p> <p><u>-The following note was added to the CPT/HCPCS Section paragraph- Group 4:</u></p> <p>Note: When a panel with greater than one or less than five genes is ordered, use the corresponding existing panel CPT code or CPT code 81479 if none exists.</p> |
| 05/15/2021 | R11 | <p>Added CPT code 81353 which had been inadvertently omitted to CPT/HCPCS Code section-Group2, effective January 1, 2021.</p> <p>Deleted SCA1 CPT code 81479 from the CPT/HCPCS code section- Group 4 Paragraph, <u>Tier 2/NOC Non-covered Code/Gene Combinations</u>, due to the inadvertent inclusion of SCA1 as a gene in error.</p> |

| REVISION HISTORY DATE | REVISION HISTORY NUMBER | REVISION HISTORY EXPLANATION |
|-----------------------|-------------------------|--|
| | | <p>Added PLA code 0070U to the ICD-10-CM Diagnosis Codes That Support Medical Necessity and to the Paragraph, Group 9, effective May 15, 2021</p> <p>Added PLA code 0070U to CPT/HCPCS Code Section- Group 1, effective May 15, 2021</p> |
| 04/01/2021 | R10 | <p>Added Proprietary Laboratory Analysis (PLA) code 0027U to the coding information section.:</p> <p><u>CPT Codes 81279</u> JAK2 (Janus kinase 2) (eg, myeloproliferative disorder), (exon 12 sequence and exon 13 sequence) and <u>0027U</u> (Janus kinase 2) (e.g., myeloproliferative disorder), gene analysis, targeted sequence analysis exons 12-15 are considered medically necessary in the initial work-up of BCR-ABL and JAK2 (V617F variant) negative adults with clinical, laboratory, or pathological findings suggesting polycythemia vera.</p> <p>Added PLA code 0027U to the CPT/HCPCS Code section-Group 1.</p> <p>Added PLA code 0027U to the ICD-10-CM Diagnosis Codes That Support Medical Necessity section-Group 14.</p> |
| 01/01/2021 | R9 | <p>Due to the HCPCS update, effective 1/1/2021, the following CPT codes were added to the Group 1 tabular CPT code listing: 81168, 81338, 81339, 81347, 81348, 81351, 81352 and removed from the Group 1 paragraph section.</p> <p>Due to the HCPCS update, effective 1/1/2021, the following CPT codes were added to the Group 2 tabular code listing: 81191, 81192, 81193, 81194, 81353, 81357, 81419, 81529, 81546, 81554, and 81360 and removed from the Group 2 paragraph section.</p> <p>Due to the annual HCPCS update, CPT code 81545 was deleted from Group 3, effective 1/1/2021:</p> |
| 01/01/2021 | R8 | <p><u>The Indications of Coverage by CPT code section was revised as follows:</u></p> <p>CPT Code 81401 was replaced by CPT codes (81168) CCND1/IGH;(81278) BCL1/IgH, t</p> <p>CPT Code 81402 was replaced by CPT code (81338) MPL</p> <p>CPT Code 81403 was replaced by CPT code 81339) MPL</p> |

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| | | <p>CPT Code 81403 was replaced by CPT code (81279) JAK2</p> <p>CPT code 81404 was replaced by CPT code (81352) TP53, and CPT code 81405 was replaced by CPT code (81351) TP53</p> <p>CPT code 81479 was replaced by CPT code (81347) RARS</p> <p><u>The CPT/HCPCS Codes Section was revised as follows:</u></p> <p>Group 1 Tier 1 Covered Codes: Added CPT codes 81168, 81338, 81339, 81347, 81348, 81351, 81352.</p> <p>Group 2 Tier 1 Individual Review Codes: Added CPT codes 81191, 81192, 81193, 81194, 81353, 81357, 81419, 81529, 81546, 81554, 81360.</p> <p>Group 4 Tier 2 CPT and NOC Codes: CPT code 81401 CND1/IGH was replaced by 81168-now in Group 1; CPT code 81405 TP53 was replaced by 81353- now in Group 2 ; CPT code 81479 RARS was replaced by 81347- now in Group 1.</p> <p><u>ICD-10 Codes that Support Medical Necessity Section was revised as follows</u></p> <p>Group 14: Paragraph: CPT codes Deleted code 81402 MPL was replaced by 81338; 81403 MPL was replaced by 81339, and 81403 JAK2 was replaced by 81279.</p> <p>Group 23: Paragraph: CPT code 81401 CCND1/IGH was replaced by 81168.</p> <p>Group 29: Paragraph: CPT codes 81404 TP53 was replaced by 81352; CPT code 81405 TP53 was replaced by 81351.</p> |
| 07/01/2020 | R7 | <p>Deleted 81227 from the CPT/HCPCS section Group 3 and added CPT code 81227 to the "CPT/HCPCS section" Group 1.</p> <p>Added 81227 to the "ICD-10-CM that support Medically Necessity section-Group 35</p> <p>Added the following explanatory language to the Article Text: Use 81227 for CYP2C9</p> |

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| | | genotyping for individuals who have a relapsing form of multiple sclerosis, and require CYP2C9 genotyping for dosing in accordance with the FDA prescribing information for Mayzent. CYP2C9 testing must include the *1, *2, and *3 alleles that are necessary to safely dose the FDA-approved drug Mayzent. |
| 01/01/2020 | R6 | <p>The following wording for CPT code 81445 was corrected:</p> <p>"please refer to LCD L36376" was revised to read "please refer to L37810".</p> |
| 01/01/2020 | R5 | <p>Due to the annual CPT/HCPCS code update, CPT codes 81307-81309, 81522, and 81552 have been added to Group1- Tier 1 Covered Codes. CPT codes 81277 and 81542 have been added to CPT/HCPCS Codes Group2- Individual Review, effective for services rendered on or after January 1, 2020.</p> <p><u>The following Revision History language, effective for services rendered on or after 1/1/2019, was relocated from the Article Text section to the Revision History section:</u></p> <p>" Annual CPT/HCPCS Revisions Effective 1/1/2019</p> <p>Due to the annual CPT/HCPCS Code update and transition of coding guidance to this article, the following codes have been deleted from Group 1 in LCD L35000: CPT codes 81211, and 81213 have been deleted- to report see CPT code(s) 81162, 81163, 81164; CPT code 81214 has been deleted- to report see CPT codes 81165, 81166.</p> <p>Due to the annual new CPT/HCPCS Code update and transition of coding guidance to this article, the following new 2019 CPT codes have been added to The CPT/HCPCS section -Group 2 which will require individual review: CPT codes 81177, 81178, 81179, 81180, 81181, 81182, 81183, 81184, 81185, 81186, 81187, 81188, 81189, 81190, 81233, 81306, 81312, 81320, 81333, 81343, 81344.</p> <p>Due to the annual new CPT/HCPCS Code update and transition of coding guidance to this article, the following new Tier 1, 2019 CPT codes replaced existing Tier 2 Non-covered codes and have been added to the CPT/HCPCS section- Group 3: CPT codes 81171, 81172, 81173, 81174, 81204, 81234, 81239, 81271, 81274, 81284, 81285, 81286, 81289, 81329, 81336, and 81337. CPT code 81443 was added to CPT/HCPCS section- Group 3 because it is considered screening and is not covered.</p> <p>Due to the annual new CPT/HCPCS Code update and transition of coding guidance to this article, the following new Tier 1, 2019 CPT codes 81305, and 81518 replaced existing Tier 2 Covered codes and were added to CPT/HCPCS section- Group 1. CPT codes 81236, 81237, and 81345 were added to CPT/HCPCS Group 1 due to prior</p> |

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| | | <p>existing coverage.</p> <p>CPT code 81518 was added to ICD10-CM That Supports Medical Necessity section - Group 26.</p> <p>CPT code 81305 replaced 81479 and was added to ICD10-CM That Supports Medical Necessity section -Group 34.</p> <p>CPT codes 81163, 81164, 81165, 81166, and 81167 were added to ICD10-CM That Supports Medical Necessity section -Group 1.</p> <p>CPT code 81345 was added to ICD10-CM That Supports Medical Necessity section - Group 33."</p> |
| 10/15/2019 | R4 | Added ICD-10-CM diagnosis code D45 to the "ICD-10 Codes that Support Medical Necessity" section-Group 14, effective for services rendered on or after 10/15/2019. |
| 10/03/2019 | R3 | <p>This article was converted to the new Billing and Coding Article type.</p> <p>Bill types and Revenue codes have been removed from this article. Guidance on these codes is available in the Bill type and Revenue code sections.</p> |
| 08/15/2019 | R2 | The title has been changed from "Molecular Pathology Procedures- Related to Molecular Policy Procedures LCD (L35000)" to Billing and Coding: Molecular Pathology Procedures. |
| 01/01/2019 | R1 | Corrected URL. |

Associated Documents

Related Local Coverage Documents

LCDs

[L35000 - Molecular Pathology Procedures](#)

Related National Coverage Documents

N/A

Statutory Requirements URLs

Title XVIII of the Social Security Act (SSA)

Description Section 1862(a)(1)(A) excludes expenses incurred for items or services which are not reasonable and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body

member.

Title XVIII of the Social Security Act (SSA)

Description Section 1833(e) prohibits Medicare payment for any claim which lacks the necessary information to process the claim.

Title XVIII of the Social Security Act (SSA)

Description Section 1862(a)(7) excludes routine physical examinations, unless otherwise covered by statute.

Rules and Regulations URLs

N/A

CMS Manual Explanations URLs

CMS Publication 100-02, Medicare Benefit Policy Manual, Chapter 15, Section 80.1

Description Laboratory services must meet applicable requirements of CLIA

CMS Publication 100-04, Medicare Claims Processing Manual, Chapter 16, Section 40.7

Description Billing for Noncovered Clinical Laboratory Tests Section and 120.1 Clarification of the Use of the Term “Screening” or “Screen”

CMS Publication 100-04, Medicare Claims Processing Manual, Chapter 30, Section 50

Description Advance Beneficiary Notice of Noncoverage (ABN)

CMS Publication 100-08, Medicare Program Integrity Manual, Chapter 13

Description Local Coverage Determinations

CMS National Correct Coding Initiative (NCCI) Policy Manual for Medicare Services, Chapter 10, Pathology/Laboratory Services, (A)

Description Introduction

CMS Publication 100-02, Medicare Benefit Policy Manual, Chapter 15, Section 80.6. 5

Description Describes the Surgical/Cytopathology Exception.

CMS National Correct Coding Initiative (NCCI) Policy Manual for Medicare Services, Chapter 10 Pathology/Laboratory Services

Description Addresses reflex testing

Other URLs

N/A

Public Versions

| UPDATED ON | EFFECTIVE DATES | STATUS |
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| Some older versions have been archived. Please visit the MCD Archive Site to retrieve them. | | |
| 09/17/2024 | 10/01/2024 - N/A | Future Effective (This Version) |
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| 12/20/2023 | 01/01/2024 - 07/31/2024 | Superseded |
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Keywords

N/A