

Gene Expression Profiling

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Medical Guideline Disclaimer

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Definitions

Gene expression profiling (GEP) is a technology for identifying the genes that are active in a given sample of cells or tissue. This technique enables profiling of genes that are differentially expressed in disease states; thereby providing diagnostic and prognostic information.

Note: This guideline includes gene expression analysis, gene sequencing, and other techniques.

[\(Skip cross referencing and go directly to Guideline Section\)](#)

Related Medical Guidelines

[Analysis of KRAS Status](#)
[BRAF Mutation Analysis](#)
[BRCA 1 and 2 Genetic Testing \(Sequence Analysis/Rearrangement\)](#)
[Carrier Screening for Parents or Prospective Parents](#)
[Gene Expression Profiling and Biomarker Testing for Breast Cancer](#)
[Gene Expression Testing for Multiple Myeloma](#)
[Genetic Analysis of PIK3CA Status in Tumor Cells](#)
[Genetic Counseling and Testing](#)
[Genetic Testing for Colorectal Cancer/Lynch Syndrome](#)
[Genetic Testing for PTEN Hamartoma Tumor Syndrome](#)
[MYvantage® Hereditary Comprehensive Cancer Panel](#)
[Noninvasive Prenatal Testing \(NIPT\) for Fetal Aneuploidy](#)

Related MCG Criteria (list not all-inclusive)

Alzheimer's disease — MCG #: A-0590 (early onset), A-0809 (late onset)
Amyotrophic Lateral Sclerosis (ALS) — A-0591
Autism Spectrum Disorders/Developmental Delay/Intellectual Disability (See [MCG #s below](#) for chromosomal microarray analysis and whole genome/exome sequencing)
BCR-ABL1 Genetic Mutation Testing in Chronic Myelogenous Leukemia and Acute Lymphoblastic Leukemia — A-0759, A-0771
Cancer of Unknown Primary — A-0673
Cancer Multiomic Molecular Profiling — A-0789

Cardiac Ion Channel Genetic Testing — MCG #s: A-0594 (Brugada Syndrome), A-0607 (Long QT Syndrome), A-0636 (Catecholaminergic Polymorphic Ventricular Tachycardia), A-0831 (Romano-Ward Syndrome), A-0833 (Andersen-Tawil Syndrome), A-0834 (Timothy Syndrome), A-0918

Cerebral Autosomal Dominant Arteriopathy with Subcortical Infarcts and Leukoencephalopathy (CADASIL) Syndrome — A-0668

Coronary Artery Disease — A-0656 (KIF6 Gene), A-0658 (Genetic Panel)

Cowden Syndrome — A-0585

Cystic Fibrosis — A-0597

Deafness and Hearing Loss — MCG #s: A-0596 (Nonsyndromic - GJB2, MT-RNR1, MT-TS1, POU3F4, PRPS1, and SMPX Genes), A-0823 (Nonsyndromic - Microarray and Multigene Panels), A-0802 (Usher Syndrome)

Diabetes Mellitus — MCG #s: A-0598 (Maturity-Onset Diabetes of the Young), A-0826 (Type 2), A-0824 (Permanent Neonatal), A-0825 (Transient Neonatal)

Epidermal Growth Factor Receptor Mutation Analysis for Patients with Non-Small-Cell Lung Cancer — A-0795

Factor V Leiden Mutation Analysis — A-0600

Familial Hypercholesterolemia — A-0958

Familial Hyperinsulinism — A-0777

Fanconi Anemia — A-0683

Frontotemporal Dementia (FTD) — A-0906

Glycogen Storage Disease, Type I — A-0684

Heart-Transplant Rejection (AlloMap®) — A-0623

Hereditary Cardiomyopathy — MCG #s: A-0627 (Arrhythmogenic Right Ventricular), A-0633 (Nonsyndromic), A-0648 (Dilated)

Hereditary Pancreatitis — MCG #s: A-0646 (CFTR, CPA1, CTRC, PRSS1, and SPINK1 genes), A-0797 (next generation sequencing panel)

Huntington Disease — A-0605

Li-Fraumeni Syndrome - TP53 Gene — A-0584

Melanomas, cutaneous — MCG #s: A-0601 (BAP1, CDK4, and CDKN2A Genes), A-0837 (Gene Expression Profiling)

Multiple Endocrine Neoplasia (MEN) Syndrome — A-0582 (Type 1), A-0842 (Type 2)

Muscular Dystrophies (Duchenne, Becker)— A-0608

Neuroblastoma - MYCN Gene and Gene Expression Profiling — A-0610

Niemann-Pick Disease (Acid Sphingomyelinase Deficiency) — A-0611

Pancreatitis, Hereditary — A-0646

Parkinson Disease — A-0671

Peripheral Neuropathies — A-0691

Polycystic Kidney Disease — MCG #s: A-0725 (Autosomal Dominant), A-0852 (Autosomal Recessive)

Prostate Cancer - BRCA1 and BRCA2 Genes — A-0612

RET Proto-Oncogene Germline Mutations — A-0842

Rett Syndrome — A-0687

Statin-Induced Myopathy — A-0981

Chromosomal Microarray Analysis (CMA) — MCG #s: A-0588 (Autism Spectrum Disorders), A-0810 (Developmental Delay), A-0812 (Prenatal Testing), A-0917 (Congenital Anomalies), A-0924 (Intellectual Disability)

Noninvasive Prenatal Testing (NIPT) — MCG#s A-0848 (Microdeletion Syndromes), A-0849 (Monogenic Disorders), A-0850 (Sex Chromosome Disorders)

Whole genome/exome sequencing — MCG #s: A-0710 (Cancer), A-0865 (Cardiovascular Disorders), A-0866 (Primary Immunodeficiency Disorders), A-0870 (Autism Spectrum Disorders), A-0871 (Metabolic, Mitochondrial, and Neurologic Disorders), A-0872 (Congenital Anomalies), A-0926 (Developmental Delay and Intellectual Disability)

Guideline

Members are eligible for GEP testing per the [related policies above](#) and as applicable below:

- I. Advanced cancer, next generation sequencing (NGS), when performed with a diagnostic lab test that has received FDA approval or clearance* when the following criteria are met:
 1. Member has
 - i. either recurrent, relapsed, refractory, metastatic, or advanced stages III or IV cancer; and
 - ii. not been previously tested using the same NGS test for the same cancer genetic content; and

- iii. decided to seek further cancer treatment (e.g., therapeutic chemotherapy)
- 2. The diagnostic laboratory test using NGS must have:
 - i. FDA approval or clearance as a companion in vitro diagnostic; and
 - ii. an FDA approved or cleared indication for use in that patient's cancer; and
 - iii. results provided to the treating physician for management of the patient using a report template to specify treatment options

* See [List of Cleared or Approved Companion Diagnostic Devices](#) to match the test with the drug under consideration. The member's Pharmacy benefit should be checked for formulary inclusion. (Note: The FDA's list of tests approved for use in conjunction with specific drugs may be searched in its entirety by selecting "A" in the "Show entries" drop down menu)

The following tests are not covered for Medicaid members, as proprietary lab analysis (PLA) codes are not reimbursed by NYS Medicaid (list may not be all-inclusive):

- FoundationOne CDx (0037U)
- FoundationOne Liquid CDx (0239U)
- Guardant360 CDx (0242U)
- LeukoStrat CDx FLT3 (0023U)
- myChoice® CDx (0172U)
- Oncomine Dx Target Test (0022U)
- Praxis Extended RAS Panel (0111U)
- theascreen FGFR RGQ RT-PCR Kit (0154U)
- theascreen PIK3CA RGQ PCR Kit (0155U [tumor tissue], 0177U [plasma])

II. Breast cancer, clinical management

(See EmblemHealth [Gene Expression Profiling and Biomarker Testing for Breast Cancer](#) Medical Guideline)

III. Non-small cell lung cancer (NSCLC)

Guardant360 lab-developed test (LDT) (see [Section I](#) for the FDA-approved Guardant360 CDx companion diagnostic test)

1. Medically necessary for Medicare members when [LCD criteria, Plasma-Based Genomic Profiling in Solid Tumors](#), are met
2. Medically necessary for Commercial members for indications outside the scope of a companion diagnostic when:
 - i. The member has a diagnosis of metastatic or recurrent NSCLC, AND
 - ii. NSCLC diagnosis has been confirmed based on a histopathologic assessment of tumor tissue, AND
 - iii. No previous multi-gene panel testing has been performed for NSCLC, AND
 - iv. Insufficient tumor tissue is available for broad molecular profiling and member is unable to undergo an additional standard tissue biopsy due to documented medical reasons (i.e., invasive tissue sampling is contraindicated due to the member's clinical condition)

IV. NSCLC/Metastatic colorectal cancer, tumor tissue evaluation — Medicare members only per [Genomic Sequence Analysis Panels in the Treatment of Solid Organ Neoplasms LCD](#) (e.g., OncoVantage®)

V. Hematolymphoid diseases, evaluation of blood or bone marrow samples (i.e., acute myelogenous leukemia [AML], myelodysplastic syndromes [MDS], myeloproliferative neoplasms [MPN]) — covered for all lines of business using criteria from [LCD: Genomic Sequence Analysis Panels in the Treatment of Hematolymphoid Diseases](#)

VI. Prostate cancer

1. 4Kscore — covered for Commercial and Medicare using criteria from [LCD: Biomarker Testing \(Prior to Initial Biopsy\) for Prostate Cancer Diagnosis](#)
2. ConfirmMDx™ — covered for Commercial and Medicare using criteria from [LCD: ConfirmMDx Epigenetic Molecular Assay](#)
3. Decipher® Prostate — covered for Commercial and Medicare using criteria from [LCD: Prostate Cancer Genomic Classifier Assay for Men with Localized Disease](#)
4. ExoDx® Prostate IntelliScore (EPI) (aka ExosomeDx®) — covered for Medicare using criteria from [LCD: Biomarker Testing \(Prior to Initial Biopsy\) for Prostate Cancer Diagnosis](#)
5. Oncotype DX® — covered for Commercial and Medicare using criteria from [LCD: Oncotype DX® Prostate Cancer Assay](#)
6. Prolaris® Prostate Cancer — covered for Commercial and Medicare using criteria from [LCD: Prolaris™ Prostate Cancer Genomic Assay](#) for Men with Favorable Intermediate Risk Disease
7. PCA3 (e.g., ProgenSA) — covered for Commercial (eff. 5/3/2021) and Medicare when all biopsies in previous encounter(s) are negative for prostatic cancer, the subsequent prostate specific antigen (PSA) is rising, and when the member or physician wants to avoid repeat biopsy (“watchful waiting”)
8. ProMark® Protomomic Prognostic Test — covered for all lines of business using criteria from [LCD: ProMark Risk Score](#)

The following tests are not covered for Medicaid members, as proprietary lab analysis (PLA) codes are not reimbursed by NYS Medicaid:

- ExoDx Prostate IntelliScore (EPI) (0005U)
- Oncotype DX (0047U)

The following tests are not covered for Medicaid members, as they are not on the Medicaid Lab Fee Schedule:

- 4KScore (81539)
- ConfirmMDx (81551)
- Decipher (81542)
- Prolaris (81541)

VII. Thyroid lesions with indeterminate cytology; one-time testing

1. Afirma Thyroid FNA Analysis®
2. ThyGeNEXT® (formerly ThyGenX and miRInform®)
3. ThyraMIR Thyroid miRNA classifier
4. ThyroSeq next generation sequencing

The following tests are not covered for Medicaid members, as proprietary lab analysis (PLA) codes are not reimbursed by NYS Medicaid:

- ThyGeNEXT (0245U)
- ThyraMIR (0018U)
- ThyroSeq (0026U)

VIII. Uveal melanoma, primary and localized (DecisionDx covered for [Medicare](#) members)

IX. Whole exome/genome sequencing — MCG medically-necessary criteria sets (see [Limitations/Exclusions](#) for investigational indications):

1. A-0866 — Whole Genome/Exome Sequencing - Primary Immunodeficiency Disorders
2. A-0871 — Whole Genome/Exome Sequencing - Metabolic, Mitochondrial, and Neurologic Disorders
3. A-0872 — Whole Genome/Exome Sequencing - Congenital Anomalies
4. A-0926 — Whole Genome/Exome Sequencing - Developmental Delay and Intellectual Disability

Limitations/Exclusions

- I. Gene expression profiling is not considered medically necessary in the absence of the following:
 1. Analytical/clinical validity
 2. Clinical utility (i.e., result does not impact medical management, e.g., surgery, change in surveillance, chemotherapy, hormonal manipulation, etc.)
- II. Confirmation of consumer-based testing (including, but not limited to Health + Ancestry [23andMe] has not been shown to be of clinical value and remains experimental/investigational. Testing will be approved only for members who otherwise meet the clinical criteria in these policies
- III. Whole exome/genome sequencing are not considered medically necessary due to insufficient evidence of therapeutic value the following indications (see [section IX](#) for medically necessary indications):
 1. Population-based screening
 2. Cancer testing to identify targeted therapies
 3. Preimplantation genetic diagnosis and screening
 4. Invasive prenatal (fetal) testing
 5. Products of conception and pregnancy loss
 6. Testing for chromosomal rearrangements

See also the following MCG criteria:

1. A-0710 — Whole Genome/Exome Sequencing - Cancer
2. A-0865 — Whole Genome/Exome Sequencing - Cardiovascular Disorders
3. A-0870 — Whole Genome/Exome Sequencing - Autism Spectrum Disorders

IV. The following GEP tests are not considered medically necessary due to insufficient evidence of therapeutic value (list not all-inclusive; note exceptions):

1. 4Kscore® Test (covered for Commercial and Medicare; see [Section VI](#))
2. 23-Gene NGS Pyruvate Metabolism and Related Disorders Panel
3. 23andMe Health + Ancestry Service
4. Accelerate PhenoTest® BC kit
5. ADmark® Alzheimer's Evaluation
6. AlloSure® Kidney (covered for [Medicare](#))
7. Albinism Panel
8. AmHPR Helicobacter Pylori Antibiotic Resistance NGS Panel
9. ARISK Autism Risk Assessment Test

10. Autosomal Dominant and Recessive Polycystic Kidney Disease Nextgen Sequencing (NGS) Panel
11. Avise tests
 - i. Avise® CTD
 - ii. Avise® MTX (aka Avise PG) (covered for [Medicare](#))
 - iii. Avise® Lupus
12. BRCAPlus
13. BluePrint®
14. BreastNext® (covered for Medicare per Medicare Fee Schedule)
15. BreastOncPx™
16. BreastPRS
17. BREVAGen/BREVAGenplus
18. Bridge Urinary Tract Infection Detection and Resistance Test
19. CancerIntercept
20. CancerNext® (covered for Medicare per Medicare Fee Schedule), CancerNext-Expanded™
21. CancerTYPE ID® (covered for [Medicare](#))
22. Carbohydrate Metabolism Deficiency NextGen DNA Screening Panel
23. Cardiac DNA Insight
24. Cardiovascular Health Panel
25. CellSearch System®
26. CGD Universal Test Panel
27. Ciliopathies: Sequencing Panel
28. Ciliopathy NextGen Sequencing (NGS) Panel
29. Clarava
30. Clonoseq® (covered for [Medicare](#))
31. ColoNext® (covered for Medicare per Medicare Fee Schedule)
32. ColoVantage
33. Complete Hereditary Spastic Paraplegia Evaluation Panel
34. Complete Lung
35. Comprehensive Brain Malformations Next Generation Sequencing Panel
36. Comprehensive Dystonia NextGen DNA Screening Panel
37. Comprehensive Inherited Retinal Dystrophies Sequencing Panel
38. Comprehensive Molecular Genetic Panel
Comprehensive Muscular Dystrophy/Myopathy Next Generation DNA Sequencing Panel
39. Comprehensive Molecular Genetic Panel
40. ConfirmMDx (Covered for Commercial and Medicare members; see [Section VI](#))
41. Congenital Myopathy NextGen Sequencing (NGS) Panel
42. Congenital Stationary Night Blindness panel
43. Connective Tissue NGS Panel
44. Corus® CAD (Coverage rescinded for Medicare members eff. Dec. 12, 2018 based on [noncoverage Local Coverage Determination: MolDX: Corus® CAD Assay](#))
45. Craniosynostosis next generation sequencing (NGS) panel
46. DecisionDx tests
 - i. DiffDx - Melanoma
 - ii. Glioblastoma
 - iii. SCC
 - iv. Uveal melanoma (covered for [Medicare](#))
47. Decipher (covered for Commercial and Medicare members; see [Section VI](#))
48. DecodEX Microbial Genetic Identification

49. Distal Hereditary Motor Neuropathy NextGen Sequencing (NGS) Panel
50. Ehlers-Danlos Syndrome NGS Panel Dominant and Recessive
51. ENGAUGE™-cancer-DLBCL (covered for Medicare)
52. Envisia Genomic Classifier (covered for [Medicare](#))
53. Epi proColon
54. EpiSign Complete
55. ExoDx® Prostate IntelliScore (EPI) (aka ExosomeDx®) (covered for [Medicare](#))
56. ExomeNext
57. ExomeNext-Rapid
58. Expanded Pan-Ethnic Panel
59. Familial Hemiplegic Migraine NextGen Sequencing (NGS) Panel Fetal Akinesia Deformation Sequence/Lethal Multiple Pterygium Syndrome NextGen Sequencing (NGS) Panel
60. FoundationOne CDx (covered for Commercial and Medicare; see [Section I](#))
61. FoundationOne® Heme
62. FoundationOne Liquid CDx (covered for Commercial and Medicare; see [Section I](#))
63. GeneAware
64. GeneFx® Colon
65. GeneFx® Lung
66. GeneKey
67. GeneStrat™
68. GeneSight (For Medicare members, see [Pharmacogenetics Testing LCD](#) [replaced Retired GeneSight® Assay for Refractory Depression LCD])
69. GeneTrails® Solid Tumor Panel
70. Genomic Unity® AR Analysis
71. Genomic Unity® CACNA1A Analysis (covered for Commercial and Medicare)
72. Genomic Unity® CSTB Analysis (covered for Commercial and Medicare)
73. Genomic Unity® FXN Analysis (covered for Commercial and Medicare)
74. Genomic Unity® SMN1/2 Analysis (covered for Commercial and Medicare)
75. Genomind Professional PGx Express CORE Anxiety & Depression
76. GPS Cancer
77. Guardant360® LDT (covered for Commercial and Medicare; see [Section III](#))
78. Guardant360 CDx (covered for Commercial and Medicare; see [Section I](#))
79. Guardant Reveal™
80. Healthy Weight DNA Insight
81. Healthy Woman DNA Insight
82. HCMNext
83. H/I Gene Expression Ratio
84. Hemophagocytic Lymphohistiocytosis Panel by next generation sequencing (NGS)
85. Hereditary Spherocytosis/Elliptocytosis NextGen Sequencing Panel
86. HERmark (Covered for Medicare, see [Gene Expression Profiling and Biomarker Testing for Breast Cancer](#))
87. HLA-DQB1*06:02 typing for the diagnosis or management of narcolepsy
88. HOX13:IL17BR
89. Hypokalemic and Hyperkalemic Periodic Paralysis Disorders NGS Sequencing Panel
90. Insight® DX Breast Cancer Profile
91. Intellectual Disability (IDNEXT) Panel
92. Insight TNBCtype
93. Invitae
 - i. Autoinflammatory Syndromes Panel

- ii. Overgrowth Syndromes Panel
 - iii. PCM MRD Monitoring
 - iv. PCM Tissue Profiling and MRD Baseline Assay
 - v. Primary Immunodeficiency Panel
- 94. Leukoencephalopathy NGS Panel
- 95. Lipodystrophy NGS Panel
- 96. LungLB
- 97. LUNGSEQ® Panel
- 98. Lymph3Cx Lymphoma Molecular
- 99. Subtyping Assay
- 100. Macula Risk PGx
- 101. Macular Degeneration Mutation Analysis
- 102. Mammastatin
- 103. miReview®
- 104. Mammostrat
- 105. Melaris®
- 106. Molecular Intelligence
- 107. My5-FU™ (previously OnDose™)
- 108. myChoice® CDx (Covered for Commercial and Medicare; see [Section I](#))
- 109. Myeloid Molecular Profile
- 110. myPath® Melanoma (covered Medicare)
- 111. MyPRS® Myeloma Prognostic Risk Signature
- 112. Myriad Foresight® Carrier Screen (previously Counsyl Foresight Carrier Screen)
- 113. myRisk™
- 114. MSK-IMPACT (covered for [Medicare](#); see [Section I](#))
- 115. Neurotransmitter Metabolism Deficiency NextGen DNA Screening Panel
- 116. Next Gen RASopathy Panel
- 117. Next Generation Sequencing Panel for ASXL1, RECQL4, RNU4ATAC, SOX2
- 118. NextStepDx PLUS®
- 119. NGS Epilepsy/Seizure Panel
- 120. NGS RASopathy Panel
- 121. OmniSeq Comprehensive
- 122. Oncomine Dx Target (Covered for Commercial and Medicare members; see [Section I](#))
- 123. Oncotype DX® tests
 - i. AR-V7 Nucleus (covered for [Medicare](#))
 - ii. Breast DCIS (covered for [Medicare](#))
 - iii. Colon cancer (covered for [Medicare](#))
 - iv. Prostate Score (Covered for Commercial and Medicare members; see [Section VI](#))
- 124. Oncotype MAP™ PanCancer Tissue Test (covered for Medicare)
- 125. Oncofocus®
- 126. OncoVantage® (covered for [Medicare](#))
- 127. OnkoMatch™
- 128. OnkoSight™ next generation sequencing for hematologic malignancies
- 129. Oncovue
- 130. OnoCEE
- 131. OPA 1 gene sequencing for autosomal dominant optic atrophy and/or optic neuropathy
- 132. Osteogenesis Imperfecta NGS Panel-Recessive
- 133. OvaNext™ (covered for Medicare)
- 134. Overa (aka OVA1 Next Generation or second-generation Multivariate Index Assay [MIA2G] test)

135. PAM50 Breast Cancer Intrinsic Classifier™
136. PancNext™
137. PancraGEN (previously Pathfinder TG®) (covered for [Medicare](#))
138. PancreaSeq Genomic Classifier
139. Panexia®
140. PanGIA Prostate
141. Paradigm Cancer Diagnostics [PCDx] Test
142. Pediatric Neurology Region of Interest Trio
143. Percepta Bronchial Genomic Classifier (covered for [Medicare](#))
144. Pervenio™ Lung NGS (covered for [Medicare](#))
145. PIGMENTED LESION Assay (covered for [Medicare](#))
146. Pontocerebellar Hypoplasia Panel
147. Post-Op Px™ (formerly the Prostate Px Plus)
148. Praxis Extended RAS Panel (covered for Commercial and Medicare members; see [Section I](#))
149. PreludeDx™ DCISionRT®
150. Preparent Global Panel
151. Previstage™
152. Progenity CFnxt
153. Progenity® Pan-Ethnic Carrier Screening Panel
154. Prolaris (covered for Commercial and Medicare members; see [Section VI](#))
155. PROGENSA® PCA3 (Covered for Commercial and Medicare members; see [Section VI](#))
156. ProOnc TumorSource DX
157. Proove profile panels (e.g., Opioid Risk Panel)
158. Prometheus® IBD sgi Diagnostic™
159. ProstateNext
160. RenalNext™
161. ResponseDX Tissue Origin Test Rotterdam/Veridex (covered for [Medicare](#))
162. RetnaGene AMD
163. Rotterdam Signature
164. Saethre-Chotzen Syndrome (TWIST) Sequencing and MLPA ([Greenwood Genetic Center](#))
165. ScolioScore™ AIS Prognostic Test
166. SelectMDx for prostate cancer
167. Sema4 Signal Hereditary Cancer High Prevalence Panel
168. Signatera™
169. Spastic Paraplegia Next Generation Sequencing Panel
170. Stickler Syndrome NGS Panel
171. SymGene68™ Next Generation Sequencing Cancer Panel
172. SYMPHONY™ Genomic Breast Cancer Profile (combines BluePrint, MammaPrint and TargetPrint tests)
173. Skeletal Dysplasia Ciliopathy NGS Panel
174. SYMPHONY™ Personalized Breast Cancer Genomic Profile
175. TAADNext
176. Target Now™ molecular profiling test (aka MI Profile, MI Profile X)
177. TargetPrint®
178. therascreen FGFR RGQ RT-PCR Kit (Covered for Commercial and Medicare members; see [Section I](#))
179. therascreen PIK3CA RGQ PCR Kit (Covered for Commercial and Medicare members; see [Section I](#))
180. TheraPrint®

181. theraSEEK Sequence Analysis for Functional Disorders
182. Thrombocytopenia NextGen Sequencing (NGS) Panel
183. TruGenome Undiagnosed Disease Test
184. TruGenome Technical Sequence Data (whole exome sequencing test for labs and physicians who will make their own clinical interpretations make their own clinical interpretations)
185. Tuteva
186. Universal Carrier Panel
187. Vectra DA (covered for [Medicare](#))
188. Vita Risk™
189. Vitreoretinopathy NGS Panel
190. BDX-XL2 (formerly Xpresys Lung) (covered for [Medicare](#))

Revision History

Aug. 12, 2022	Added whole genome/exome sequencing section citing medically-necessary MCG criteria sets Updated Limitations/Exclusions section citing investigational MCG criteria sets Updated MCG cross-referencing
Jul. 27, 2022	Added explanatory for searching the FDA's List of Cleared or Approved Companion Diagnostic Devices web page
Apr. 13, 2022	Added the following tests to investigational list: Accelerate PhenoTest® BC kit, Bridge Urinary Tract Infection Detection and Resistance Test, Clarava, DecisionDx DiffDx – Melanoma, DecisionDx SCC, EpiSign Complete, Invitae PCM MRD Monitoring, Invitae PCM Tissue Profiling and MRD Baseline Assay, LungLB, PancreaSeq Genomic Classifier, PreludeDx™ DCISionRT® and Tuteva
Feb. 18, 2022	Added Invitae Overgrowth Syndromes Panel as investigational Positive coverage notations added commensurate with Medical Technologies Database listings and Medicare Fee Schedule: ENGAUGE™-cancer-DLBCL (Medicare) Genomic Unity® AR Analysis (Medicare) Genomic Unity® CACNA1A Analysis (covered Commercial and Medicare) Genomic Unity® CSTB Analysis (covered Commercial and Medicare) Genomic Unity® FXN Analysis (covered Commercial and Medicare) Genomic Unity® SMN1/2 Analysis (covered Commercial and Medicare) myPath®Melanoma (Medicare) Oncotype MAP™ PanCancer Tissue Test (Medicare) OvaNext™ (Medicare)
Oct. 19, 2021	Added Guardant Reveal™ as investigational Added note in Limitations/Exclusions designating BreastNext, CancerNext, and ColoNext as Medicare-covered per Medicare Fee Schedule
July 14, 2021	Added Commercial coverage for 4Kscore and ConfirmMDx (eff. 1/20/2021) Added Commercial coverage for FoundationOne Liquid CDx and Guardant360 LDT Added Medicare coverage for ExoDx®Prostate IntelliScore (EPI) Added noncoverage note communicating that Proprietary lab analysis (PLA) codes are not covered for Medicaid members, as they are not reimbursed by NYS Medicaid Added noncoverage note communicating that CPT codes which are not on the Medicaid Lab Fee Schedule are not covered Updated list of lab tests regarded as investigational

Jul. 8, 2020	Added MSK-IMPACT for Medicare members Removed FoundationOne CDx from Limitations/Exclusions
Feb. 14, 2020	Added Plasma-Based Genomic Profiling in Solid Tumors LCD specific to Guardant360® for Medicare members
Apr. 12, 2019	Added genomic sequence analysis panels (e.g., OncoVantage®) for Medicare members
Mar. 8, 2019	Added Oncotype DCIS, Oncotype DX AR-V7 Nucleus and Xpresys Lung tests for Medicare members
Feb. 8, 2018	Added Clonoseq® for Medicare members Added link to MYvantage® Hereditary Comprehensive Cancer Panel Medical Guideline and removed MYvantage from Limitations/Exclusions
Oct. 12, 2018	Removed Corus® CAD Medicare coverage effective Dec. 12. 2018
Aug. 8, 2018	Added Medicare coverage of Guardant360® Pervenio™ Lung NGS
May 5, 2018	Added Commercial and Medicaid coverage of the Decipher, Oncotype, Prolaris and ProMark gene/biomarker expression profiling tests for prostate cancer to pre-existing Medicare coverage
Apr. 13, 2018	Added FoundationOne CDx test coverage for Medicare members Removed the following test, Thyroid, FNA Cytomorphology with Molecular tests (Quest), from the list of covered tests for thyroid lesions with indeterminate cytology (no longer available from Quest) Added language communicating noncoverage of testing to confirm results of consumer-based testing Added language clarifying that whole exome and whole genome sequencing is considered investigational Updated list of lab tests regarded as investigational
Apr. 14, 2017	Added ThyraMIR Thyroid miRNA classifier to list of eligible tests for thyroid lesions with indeterminate cytology Added Melaris to investigational list
Feb. 2, 2017	Added the following tests to investigational list: Oncofocus®, Previstage™
Sept. 9, 2016	Added the following tests to investigational list: DecodEX, Oncovue, OvaNext™, Panexia®
Aug. 12, 2016	Added Medicare coverage for CancerTYPE ID®. Added the following tests to investigational list: Brevagen/Brevagenplus, My5-FU™ (previously OnDose™), OncoVantage™, OPA 1 gene sequencing for autosomal dominant optic atrophy and/or optic neuropathy, Proove Opioid Risk Test
Jul. 8, 2016	Added the following tests to investigational list: Combined Cardiac Panel, Counsyl preconception carrier genetic screening, miReview®, Myeloid Molecular Profile, Paradigm Cancer Diagnostics [PCDX] Test, Pediatric Neurology Region of Interest Trio, Progenity® Pan-Ethnic Carrier Screening Panel, Rotterdam Signature, Saethre-Chotzen Syndrome (TWIST) Sequencing and MLPA, SelectMDx for prostate cancer
5/13/2016	Added Medicare coverage for Prosigna™ Breast Cancer Prognostic Gene Signature Assay. Added GeneStrat and Molecular Intelligence to list of investigational tests. Reinstated coverage of the following tests for Medicare members: Corus® CAD, ConfirmMDx™, Decipher® Prostate Classifier, Oncotype DX® Colon, Oncotype DX® prostate, Prolaris® and ResponseDX Tissue Origin Test
4/8/2016	Tests no longer covered for Medicare members (NGS Medicare Molecular Pathology LCD effective 4/1/2016) — Corus® CAD, ConfirmMDx™, Decipher® Prostate Classifier, Oncotype DX® colon, Oncotype DX® prostate, Prolaris® and ResponseDX Tissue Origin Test. Non-covered tests added to investigational list — GeneFx® Colon, myPath® (NGS Medicare Molecular Pathology LCD effective 4/1/2016)

12/21/2015	Amended Limitations/Exclusions Section to reflect positive Medicare coverage for Oncotype Prostate.
10/9/2015	Amended Limitations/Exclusions Section to reflect positive Medicare coverage for Decipher Prostate Classifier and Prolaris

References

AHRQ. Technology Assessment on Genetic Testing or Molecular Pathology Testing of Cancers with Unknown Primary Site to Determine Origin. February 2013. <http://www.cms.gov/Medicare/Coverage/DeterminationProcess/downloads/id90TA.pdf>. Accessed September 8, 2022.

Centers for Medicare & Medicaid Services. Local Coverage Determinations. <https://www.cms.gov/medicare-coverage-database/indexes/lcd-alphabetical-index.aspx?DocType=1>. Accessed September 8, 2022.

Centers for Medicare & Medicaid Services. National Coverage Determination for Next Generation Sequencing (NGS). Version 2. January 2020. <https://www.cms.gov/medicare-coverage-database/details/ncd-details.aspx?ncdid=372&ncdver=2&Keyword=next%20generation%20sequencing&KeywordLookUp=Title&KeywordSearchType=Exact&bc=CAAAAAAAAA>. Accessed September 8, 2022.

National Cancer Care Network (NCCN). Clinical Practice Guidelines in Oncology. Colon Cancer. Version 1.2022. http://www.nccn.org/professionals/physician_gls/pdf/colon.pdf. Accessed September 8, 2022.

National Cancer Care Network (NCCN). Clinical Practice Guidelines in Oncology. Cutaneous Melanoma. Version 3.2022. https://www.nccn.org/professionals/physician_gls/pdf/cutaneous_melanoma.pdf. Accessed July 13, 2021.

National Cancer Care Network (NCCN). Clinical Practice Guidelines in Oncology. Multiple Myeloma. Version 5.2022. http://www.nccn.org/professionals/physician_gls/pdf/myeloma.pdf. Accessed July 13, 2021.

National Cancer Care Network (NCCN). Clinical Practice Guidelines in Oncology. Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma. Version 1.2023. https://www.nccn.org/professionals/physician_gls/pdf/cli.pdf. July 13, 2021.

National Cancer Care Network (NCCN). Clinical Practice Guidelines in Oncology. Non-Small Cell Lung Cancer Version 4.2022. http://www.nccn.org/professionals/physician_gls/pdf/nscl.pdf. Accessed July 13, 2021.

National Cancer Care Network (NCCN). Clinical Practice Guidelines in Oncology. Occult Primary (Cancer of Unknown Primary [CUP]). Version 1.2023. http://www.nccn.org/professionals/physician_gls/pdf/occult.pdf. Accessed July 13, 2021.

National Cancer Care Network (NCCN). Clinical Practice Guidelines in Oncology. Prostate Cancer Version 4.2022. http://www.nccn.org/professionals/physician_gls/pdf/prostate.pdf. Accessed July 13, 2021.

National Cancer Care Network (NCCN). Clinical Practice Guidelines in Oncology. Prostate Cancer Early Detection Version 1.2022. https://www.nccn.org/professionals/physician_gls/pdf/prostate_detection.pdf. Accessed September 8, 2022.

Hayes Inc. Molecular Test Assessment. FoundationOne CDx (Foundation Medicine Inc.) for the Intended Use as a Broad Molecular Profiling Tool. Lansdale, PA: Hayes Inc.; April 2022.

Specialty-matched clinical peer review.