MEDICAL POLICY

MEDICAL POLICY DETAILS	
Medical Policy Title	**PATHFINDER TG® MOLECULAR SYSTEM (e.g.,PancraGEN® Pancreatic Risk Classifier)**
Policy Number	**2.02.39**
Category	**Laboratory Test**
Effective Date	**07/17/08**
Revised Date	**03/19/09, 03/18/10, 03/17/11**
Archived Date	**02/16/12**
Edited Date	**01/17/13, 01/16/1401/22/15, 01/21/16, 01/19/17, 01/18/18, 01/17/19**
Product Disclaimer	• *If a product excludes coverage for a service, it is not covered, and medical policy criteria do not apply.* • *If a commercial product (including an Essential Plan product) or a Medicaid product covers a specific service, medical policy criteria apply to the benefit.* • *If a Medicare product covers a specific service, and there is no national or local Medicare coverage decision for the service, medical policy criteria apply to the benefit.*

POLICY STATEMENT

Based on our criteria and review of the peer-reviewed literature, molecular testing using the Pathfinder TG® system (e.g.,PancraGEN® pancreatic risk classifier) has not been medically proven to be effective and is considered **investigational** for all indications including the evaluation of pancreatic cyst fluid.

Refer to Corporate Medical Policy # 11.01.03 regarding Experimental or Investigational Services.

DESCRIPTION

The patented PancraGEN® pancreatic risk classifier is a proprietary integrated molecular pathology test that assesses the cumulative DNA mutations in key oncogenes and tumor suppressor genes associated with pancreatic cancer. PancraGEN can help assess risk of malignancy in patients with cysts and enhance diagnostic tools such as EUS imaging, CEA, cytology and other risk factors by providing more information for use in management decisions. PanDNA is the molecular technology that drives PancraGEN. It identifies cumulative DNA abnormalities in pancreatic cysts. Using well-established molecular markers, PanDNA can help inform patient management when used in the context of clinical features, imaging, and cytology results.

Interpace Diagnostics has patented a proprietary platform called PathFinderTG; it provides mutational analyses of patient specimens. The patented technology permits analysis of tissue specimens of any size, “including minute needle biopsy specimens,” and any age, “including those stored in paraffin for over 30 years. As stated on the company website, PancraGEN integrates molecular analyses with first-line results (when these are inconclusive) and pathologist interpretation. The manufacturer calls this technique integrated molecular pathology. Test performance information is not provided on the website.

RATIONALE

For individuals who have pancreatic cysts who do not have a definitive diagnosis after first-line evaluation and who receive standard diagnostic and management practices plus topographic genotyping (PancraGEN molecular testing), the evidence includes retrospective studies of clinical validity and clinical utility. Relevant outcomes are overall survival, disease-specific survival, test accuracy and validity, change in disease status, morbid events, and quality of life. The best evidence regarding incremental clinical validity comes from the National Pancreatic Cyst Registry report that compared PancraGEN performance characteristics with current international consensus guidelines and provided preliminary but inconclusive evidence of a small incremental benefit for PancraGEN. The analyses from the registry study included only a

small proportion of enrolled patients, relatively short follow-up time for observing malignant transformation and limited data on cases where the PancraGEN results were discordant with international consensus guidelines. The evidence is insufficient to determine the effects of the technology on health outcomes.

CODES

- *Eligibility for reimbursement is based upon the benefits set forth in the member's subscriber contract.*
- *CODES MAY NOT BE COVERED UNDER ALL CIRCUMSTANCES. PLEASE READ THE POLICY AND GUIDELINES STATEMENTS CAREFULLY.*
- *Codes may not be all inclusive as the AMA and CMS code updates may occur more frequently than policy updates.*

CPT Codes

Code	Description
81479	Unlisted molecular pathology procedure

HCPCS Codes

Code	Description
No specific code	

ICD10 Codes

Code	Description
Investigational for all diagnosis codes	

REFERENCES

BlueCross BlueShield Association. Pathfinder TG® Molecular Testing. Medical Policy Reference Manual Policy #2.04.52. 2018 Oct 10.

Hage M, et al. Genomic analysis of Barrett's esophagus after ablative therapy: persistence of genetic alterations at tumor suppressor loci. Int J Cancer 2006 Jan 1;118(1):155-60.

Hata N, et al. Allelic losses of chromosome 10 in glioma tissues detected by quantitative single-strand conformation polymorphism analysis, Clin Chem 2006 Mar;52(3):370-8.

Igbokwe A, et al. Molecular testing of solid tumors. Arch Pathol Lab Med 2011;135:67–82.

Jeuken JW, et al. Molecular diagnostics as a tool to personalize treatment in adult glioma patients. Technol Cancer Res Treat 2006 Jun;5(3):215-29.

Khalid A, et al. Pancreatic cyst fluid DNA analysis in evaluating pancreatic cysts: a report of the PANDA study. Gastrointest Endosc 2009;69:1095-102.

Khalid A, et al. Endoscopic ultrasound fine needle aspirate DNA analysis to differentiate malignant and benign pancreatic masses. Am J Gastroenterol 2006 Nov;101(11):2493-500.

Lapkus O, et al. Determination of sequential mutation accumulation in pancreas and bile duct brushing cytology. Mod Pathol 2006 Jul;19(7):907-13.

Nikiforova MN, et al. Molecular diagnostics of gliomas. Arch Pathol Lab Med 2011 Jul;135(7):558-68.

Redpath Integrated Pathology. National Pancreatic Cyst Registry. [http://www.npcnregistry.com/m-home/]. Accessed 12/26/18.

Sawhney MS, et al. Comparison of carcinoembryonic antigen and molecular analysis .in pancreatic cyst fluid. Gastrointest Endosc 2009;69:1106-10.

Shen J, et al. Molecular analysis of pancreatic cyst fluid. Cancer Cytopathol 2009;117:217-227.

Sreenarasimhaiah J, et al. A comparative analysis of pancreas cyst fluid CEA and histology with DNA mutational analysis in the detection of mucin producing or malignant cysts. JOP 2009;10(2):163-8.

Trikalinos TA, et al. A systematic review of loss-of-heterozygosity based topographic genotyping with PathfinderTG®. AHRQ Technology Assessment Program (Project ID GEND0308). 2010 Mar 1 [http://www.cms.gov/determinationprocess/downloads/id68ta.pdf] accessed 12/26/18.

Tse DT, et al. Microdissection genotyping analysis of the effect of intraarterial cytoreductive chemotherapy in the treatment of lacrimal gland adenoid cystic carcinoma. Am J Ophthalmol 2006 Jan;141(1):54-61.

*Key Article

KEY WORDS

Molecular anatomic pathology, PathFinder, RedPath, Topographic genotyping

CMS COVERAGE FOR MEDICARE PRODUCT MEMBERS

There is currently no National Coverage Determination (NCD) or Local Coverage Determination (LCD) for gene expression analysis for Molecular Testing for the Management of Pancreatic Cysts. However, effective 01/04/16 the Medicare Part-B carrier for NewJersey, Novitas Solutions, Inc, established a favorable local Coverage Decision for Loss-of-Heterozygosity Based Topographic Genotyping with PathfinderTG®. This covers most of Medicare beneficiaries in all 50 states since the Interpace reference laboratory in Parsippany, New Jersey is within the sole jurisdiction of NHIC for purposes of Part-B coverage. Please refer to https://www.cms.gov/medicare-coverage-database/details/lcd-details.aspx?LCDId=34864&ContrId=324&ver=23&ContrVer=1&CntrctrSelected=324*1&Cntrctr=324&s=38&DocType=Active&bc=AAgAAAQAAAAAAA%3d%3d&