Geisinger Health Plan

POLICIES AND PROCEDURE MANUAL

Policy: MP239

Section: Medical Benefit Policy

Subject: Pharmacogenetic Testing

I. Policy: Pharmacogenetic Testing

II. Purpose/Objective:

To provide a policy of coverage regarding Pharmacogenetic Testing

III. Responsibility:

A. Medical Directors

B. Medical Management Department

IV. Required Definitions

1. Attachment – a supporting document that is developed and maintained by the policy writer or department requiring/authoring the policy.
2. Exhibit – a supporting document developed and maintained in a department other than the department requiring/authoring the policy.
3. Devised – the date the policy was implemented.
4. Revised – the date of every revision to the policy, including typographical and grammatical changes.
5. Reviewed – the date documenting the annual review if the policy has no revisions necessary.

V. Additional Definitions

Medical Necessity or Medically Necessary means Covered Services rendered by a Health Care Provider that the Plan determines are:

a. appropriate for the symptoms and diagnosis or treatment of the Member's condition, illness, disease or injury;
b. provided for the diagnosis, and the direct care and treatment of the Member's condition, illness disease or injury;
c. in accordance with current standards of good medical treatment practiced by the general medical community;
d. not primarily for the convenience of the Member, or the Member's Health Care Provider; and
the most appropriate source or level of service that can safely be provided to the Member. When applied to hospitalization, this further means that the Member requires acute care as an inpatient due to the nature of the services rendered or the Member's condition, and the Member cannot receive safe or adequate care as an outpatient.

Medicaid Business Segment

Medical Necessity shall mean a service or benefit that is compensable under the Medical Assistance Program and if it meets any one of the following standards:

(i) the service or benefit will, or is reasonably expected to, prevent the onset of an illness, condition or disability.
(ii) the service or benefit will, or is reasonably expected to, reduce or ameliorate the physical, mental or development effects of an illness, condition, injury or disability.
(iii) the service or benefit will assist the Member to achieve or maintain maximum functional capacity in performing daily activities, taking into account both the functional capacity of the Member and those functional capacities that are appropriate for members of the same age.

INDICATIONS:
Pharmacogenetic testing is considered to be medically necessary when the identification of a specific gene marker is noted to be clinically necessary before initiation of therapy by the U.S. Food and Drug Administration as noted in the Indications section of the prescribing information. Examples include, but are not limited to any of the following:

- K-RAS for cetuximab (Erbitux) and/or panitumumab (vectibix)
- BRAF for vemurafenib (Zelboraf)
- CTFR for ivacaftor (Kalydeco) or lumacaftor/ivacaftor (Orkambi)
- EGFR for cetuximab (Erbitux) and/or afatinib dimaleate (Gilotrif)
- HER2/neu for traztuzumab (Herceptin) and/or lapitinib (Tykerb)
- Genotype 1 chronic hepatits C for teleprevir (Incivik)
- ER for fulvestarnt (Faslodex)
- GBA for velaglucerase alfa
- BCR/ABL1 for dasatnib, imatinib, nilotinib, ponatinib and/or bosutinib
- PDL1 for pembrolizumab (Keytruda)
- HLA-B*5701 for Abacavir (Ziagen)
- HLA-B*1502 for persons of Asian ancestry prior to carbamazepine (Tegretol)
- ALK for crizotinib (Xalkori) or ceritinib (Zykadia)
- TPMT gene mutation or phenotypic assay for 6-mercaptopurine or azathioprine therapy (**See MP311 for additional information)**
- MGMT gene methylation assay for temozolomide (Temodar)
- NS3 Q80K for simeprevir (Olysio)

Generally, pharmacogenetic testing such as mutation analysis or genotyping is considered to be medical necessary when:

- The member is a candidate for a targeted therapy as noted above; and
- The testing methodology used to investigate and identify the genetic mutation or biomarker has been proven to be clinically valid and analytically valid; and
- The test result has been proven to have clinical utility and will have a direct impact on the decision making and/or the member's clinical outcome.

MEDICARE BUSINESS SEGMENT:
Pharmacogeneomic testing for warfarin metabolism is eligible for coverage once per patient lifetime, corresponding to CYP2C9 and VKORC1 genotypes, respectively. Alleles CYP2C9 and VKORC1 for warfarin dosing are coverable per NCD 90.1 via coverage with evidence development. (http://www.cms.gov/medicare-coverage-database/details/ncddetails.aspx?NCDId=333&ncdver=1&bc=BAAAgAAAAAAA&)

Pharmacogeneomic testing of CYP2C19 for clopidogrel metabolism is eligible for coverage in individuals with acute coronary syndrome undergoing a percutaneous coronary intervention who are initiating or re-initiating clopidigrel therapy.

Pharmacogeneomic testing of CYP2D6 is eligible for coverage in individuals in whom:

- Amitriptyline or nortriptyline is initiated for depressive disorder; or
- Tetrabenazine dosing greater than 50 mg/day

MEDICAID BUSINESS SEGMENT:
Pharamcogenomic testing of CYP2C19 for clopidogrel metabolism is eligible for coverage as an Option 2 program exception once per patient lifetime when the request for this test is for an insured individual with documented moderate to high risk for an acute coronary event.

EXCLUSIONS:
Unless otherwise mandated, the Plan does **NOT** provide coverage for the use of the following pharmacogenetic testing because they are considered experimental, investigational or unproven. The Geisinger Technology Assessment Committee evaluated this technology and concluded that there is insufficient evidence in the peer-reviewed published medical literature to establish the effectiveness of this test on health outcomes when compared to established tests or technologies.

- CYP2D6 gene mutation for any of the following
    - Opioid analgesics
    - Antidepressants for treatment of depression (including SSRI's) **(not applicable to Medicare)**
    - Anti-psychotics for treatment of schizophrenia

    - Tamoxifen resistance
- DYPD gene mutation for capecitabine or 5-fluorouracil
- CYP2C9 for warfarin metabolism **(not applicable to Medicare/Medicaid)**
- VKORC1 for warfarin metabolism **(not applicable to Medicare/Medicaid)**
- CYP1A2
- CYP3A4
- CYP3A5
- CYP2B6
- OPRM1 (μ-opioid receptor)
- OPRK1 (k-opioid receptor)
- DRD1 (dopamine receptor)
- DRD2 (dopamine receptor)
- DRD4 (dopamine receptor)
- DAT1 or SLC6A3 (dopamine transporter)
- DBH (dopamine beta-hydroxylase)
- SLCO1B1 genotyping to improve statin prescribing and patient adherence
- TYMS (thymidylate synthetase) (eg, 5-fluorouracil/5-FU drug metabolism)
- IFNL3 (prediction of virological response to pegylated-interferon-alpha and ribavirin combination therapy)
- MTHFR (5, 10-methylenetetrahydrofolate reductase) (eg, hereditary hypercoagulability) gene analysis
- HTR2A (eg, citalopram metabolism) gene analysis, common variants
- HTR2C) (eg, citalopram metabolism) gene analysis, common variants
- UGT1A1 for irinotecan treatment
- UGT2B15 (uridine diphosphate glycosyltransferase 2 family, member 15)
- COMT (catechol-O-methyl-transferase)
- CYP2C19 for any of the following:
    - Clopidogrel resistance **(covered for Medicare in individuals with acute coronary syndrome. May be considered for program exception for the MA business segment as noted above)**
    - Antidepressants
    - Barbiturates
    - Proton pump inhibitors
    - Mephenytoin

Unless otherwise mandated, the Plan does NOT provide coverage for the use of any of the following pharmacogenetic testing panels because they are considered experimental, investigational or unproven:

- AIBioTech CardioloGene Genetic Panel
- AIBioTech Pain Management Panel
- AIBioTech PsychiaGene Genetic Panel
- AIBioTech Urologene Panel
- GeneSight ADHD
- GeneSight Psychotropic
- GeneSight Analgesic
- Genecept Assay
- SureGene Test for Antipsychotic and Antidepressant Response
- Millenium Pharmacogenetic Testing
- Proove Drug Metabolism Panel
- Proove Narcotic Risk Assay
- YouScript Panel
- PharmaRisk Basic
- PharmaRisk Psychiatric Panel
- Molecular Testing Labs Psychotropic Medication Panel
- Physicians Choice Laboratory Services Pharmacogenetic Testing
- NeuroIDGenetics
- CardioIDGenetics
- OnDose testing to allow area under the curve (AUC)-targeted 5-fluorouracil dosing
- OneOme RightMed Pharmacogenomic Test

Note: A complete description of the process by which a given technology or service is evaluated and determined to be experimental, investigational or unproven services is outlined in **MP 15 - Experimental Investigational or Unproven Services**

or Treatment.

CODING ASSOCIATED WITH: Pharmacogenetic Testing

The following codes are included below for informational purposes and may not be all inclusive. Inclusion of a procedure or device code(s) does not constitute or imply coverage nor does it imply or guarantee provider reimbursement. Coverage is determined by the member specific benefit plan document and any applicable laws regarding coverage of specific services. Please note that per Medicare coverage rules, only specific CPT/HCPCS Codes may be covered for the Medicare Business Segment. Please consult the CMS website at www.cms.gov ***or the local Medicare Administrative Carrier (MAC) for more information on Medicare coverage and coding requirements.***

G9143 Warfarin responsiveness testing by genetic technique using any method, any number of specimen(s)
81220 CFTR (cystic fibrosis transmembrane conductance regulator) (eg, cystic fibrosis) gene analysis; common variants (eg, ACMG/ACOG guidelines)
81221 (cystic fibrosis transmembrane conductance regulator) (eg, cystic fibrosis) gene analysis; known familial variants
81222 (cystic fibrosis transmembrane conductance regulator) (eg, cystic fibrosis) gene analysis; duplication/deletion variants
81227 CYP2C9 gene analysis, common variants
81225 CYP2C19 gene analysis, common variants
81355 VKORC1 gene analysis, common variants
81226 CYP2D6 (cytochrome P450, family 2, subfamily D, polypeptide 6) (eg, drug metabolism), gene analysis, common variants
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)
81245 FLT3 (fms-related tyrosine kinase 3) (eg, acute myeloid leukemia), gene 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)
81288 MLH1 (mutL homolog 1, colon cancer, nonpolyposis type 2) (eg, hereditary non-polyposis colorectal cancer, lynch syndrome) gene analysis; promoter methylation analysis
81371 HLA class I and II typing, low resolution (eg, antigen equivalents); HLA-A, -B, and -DRB1 (eg, verification typing)
81376 HLA class II typing, low resolution (eg, antigen equivalents); one locus (eg, HLA-DRB1, -DRB3/4/5, -DQB1, -DQA1, -DPB1, or -DPA1), each
81381 HLA class I typing, high resolution (ie, alleles or allele groups); one allele or allele group (eg, B*57:O1P), each
81276 KRAS (kristen rat sarcome viral oncogene homolog) (eg, carcinoma) gene analysis; additional variant(s) (eg, codon 61, codon 146)
81275 KRAS (v-Ki-ras2 Kirsten rat sarcoma viral oncogene) (eg, carcinoma) gene analysis, variants in codons 12 and 13
81287 MGMT (O-6-methylguanine-DNA methyltransferase) (eg, glioblastoma multiforme), methylation analysis
81350 UGT1A1 (UDP glucuronosyltransferase 1 family, polypeptide A1) (eg, irinotecan metabolism), gene analysis, common variants
81381 HLA Class I typing, high resolution (ie, alleles or allele groups); 1 allele or allele group (eg, B*57:01P), each
81400-81408
81210 BRAF (v-raf murine sarcoma viral oncogene homolog B1) (eg, colon cancer), gene analysis, V600E variant
81240 F2 (prothrombin, coagulation factor II) (eg, hereditary hypercoagulability) gene analysis, 20210G>A variant
81241 F5 (coagulation factor V) (eg, hereditary hpercoagulability) gene analysis, leiden variant
81291 MTHFR (5, 10-methylenetetrahydrofolate reductase) (eg, hereditary hypercoagulability) gene analysis, common variants (eg, 677T, 1298C)
82172 apolipoprotein, each
82777 galectin-3
81283 IFNL3 interferon lambda, gene analysis
81328 SLCO1B1 solute carrier organic anion transporter family, member 1B1
81335 TPMT (thiopurine S-methyltransferase, gene analysis, common variants
81346 TYMS (thymidylate synthease, gene analysis (eg, 5-FU drug metabolism)
81232 DPYD dihydropyrimidine dehydrogenase gene analysis
81230 CYP3A4 gene analysis
81231 CYP3A5 gene analysis
84431 Thromboxane metabolite(s), including thromboxane if performed, urine
86352 cellular function assay involving stimulation (eg, mitogen or antigen) and detection of biomarker (eg, ATP)
S3722
81479 NAT 2
81479 CYP1A2
81479 5HTT

81479 Serotonin Transporter genotyping
81479 Mu 1 Opioid Receptor genotyping
82542 Column chromatography, includes mass spectrometry, if performed
82657 Enzyme activity in blood cells, cultured cells or tissue, not elsewhere specified, nonradioactive substrate, each Specimen
0028U CYP2D6 (cytochrome P450, family 2, subfamily D, polypeptide 6) (eg, drug metabolism) gene analysis, copy number variants, common variants with reflex to targeted sequence analysis
0029U Drug metabolism (adverse drug reactions and drug response), targeted sequence analysis (ie, CYP1A2, CYP2C19, CYP2C9, CYP2D6, CYP3A4, CYP3A5, CYP4F2, SLCO1B1, VKORC1 and rs12777823)
0031U CYP1A2 (cytochrome P450 family 1, subfamily A, member 2)(eg, drug metabolism) gene analysis, common variants (ie, *1F, *1K, *6, *7)
0032U COMT (catechol-O-methyltransferase) (drug metabolism) gene analysis, c.472G>A (rs4680) variant

LINE OF BUSINESS:
Eligibility and contract specific benefits, limitations and/or exclusions will apply. Coverage statements found in the line of business specific benefit document will supersede this policy. For Medicare, applicable LCD's and NCD's will supercede this policy. For PA Medicaid Business segment, this policy applies as written.

REFERENCES:
Geisinger Technology Assessment Triage Committee. Pharmacogenetic Testing for Warfarin Metabolism. February 2010.

Caraco Y, Blotnick S, Muszkat M. CYP2C9 genotype-guided warfarin prescribing enhances the efficacy and safety of anticoagulation: a prospective randomized controlled study. Clin Pharmacol Ther 2008 Mar;83(3):460-70.

Centers for Medicare and Medicaid (CMS). MLN® Matters. Pharmacogenetic Testing for Warfarin Response. January 8, 2010. Accessed January 15, 2010 available at http://www.cms.hhs.gov/Transmittals/downloads/R111NCD.pdf

Centers for Medicare and Medicaid (CMS). Memo for Pharmacogenomic Testing for Warfarin Response (CAG – 004000N). August 3, 2009. Accessed January 15, 2010 available at https://www.cms.hhs.gov/mcd/viewdecisionmemo.asp?from2=viewdecisionmemo.asp&id=224&

Coumadin prescribing information. Accessed: February 4, 2010. Available at URL address: http://www.bms.com/cgi-

ECRI Institute TARGET Database (online). Genetic Assay for Warfarin Response. June 1, 2009.

Flockhart DA, O'Kane D, Williams MS, Watson MS, Gage B, Gandolfi R, et al.; ACMG Working Group on Pharmacogenetic Testing of CYP2C9, VKORC1 Alleles for Warfarin Use. Pharmacogenetic testing of CYP2C9 and VKORC1 alleles for warfarin. Genet Med. 2008 Feb;10(2):139-50.

International Warfarin Pharmacogenetics Consortium, Klein TE, Altman RB, Eriksson N, Gage BF, Kimmel SE, Lee MT, Limdi NA, Page D, Roden DM, Wagner MJ, Caldwell MD, Johnson JA. Estimation of the warfarin dose with clinical and pharmacogenetic data. N Engl J Med. 2009 Feb 19;360(8):753-64.

Li C, Schwartz UL, Ritchie MD, Roden DM, Stein CM, Kurnik D. Relative contribution of CYP2C9 and VKORC1 genotypes and early INR response to the prediction of warfarin sensitivity during initiation of therapy. Blood 2009:113;3925-3930.

McClain MR, Palomaki GE, Piper M, Haddow JE. A rapid-ACCE review of CYP2C9 and VKORC1 alleles testing to inform warfarin dosing in adults at elevated risk for thrombotic events to avoid serious bleeding. Genet Med. 2008 Feb;10(2):89-98.

Raman G, Trikalinos TA, Zintzaras E, Kitsios G, Ziogas D, Ip S, Lau J. Reviews of selected pharmacogenetic tests for non-cancer and cancer conditions [Project ID: GEND1206] (based on research conducted by the Tufts Evidence-based Practice Center under contract No. 290-02-0022). Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2008 Nov 12. 193 p. Also available: http://www.cms.hhs.gov/determinationprocess/downloads/id61TA.pdf.

Schwarz UI, Ritchie MD, Bradford Y, Li C, Dudek SM, Frye-Anderson A, Kim RB, et al. Genetic determinants of response to warfarin during initial anticoagulation. N Engl J Med. 2008 Mar 6;358(10):999-1008.

Wadelius M, Chen LY, Lindh JD, Eriksson N, Ghori MJ, Bumpstead S, et al. The largest prospective warfarin-treated cohort supports genetic forecasting. Blood. 2009 :113(4); 784-792.

U.S. Food and Drug Administration (FDA). Guidance for industry Pharmacogenomic data submissions. March 2005. Accessed: February 4, 2010. Available at URL address: http://www.fda.gov/cber/gdlns/pharmdtasub.pdf

Winifred S. Hayes, GTE Report. Janus CYP2C9 and VKORC1 Variant Testing for Management of Warfarin Dose Initiation. June, 2008

Novitas Provider Bulletin. July 22, 2013. https://www.novitas-solutions.com/bulletins/all/news-07222013.html

Kimmel SE, French B, et al. A pharmacogenetic versus a clinical algorithm for warfarin dosing. NEJM 2013; 369:2283-2293.

Pirmohamed M, Burnside G, et al. A randomized trial of genotype-guided dosing of warfarin. NEJM 2013; 369:2294-2303.

ECRI Institute. Hotline Response [database online]. Plymouth Meeting (PA): ECRI Institute; 2008 Oct 28. CYP2D6 genotyping for predicting the effectiveness of tamoxifen. 2008 Oct 28. Available at URL address: http://www.ecri.org.

National Comprehensive Cancer Network® (NCCN). NCCN GUIDELINES™ Clinical Guidelines in Oncology™. © v.2.2014: breast cancer. National Comprehensive Cancer Network, Inc 2014, All Rights Reserved. http://www.nccn.org/professionals/physician_gls/PDF/breast.pdf

National Comprehensive Cancer Network® (NCCN). NCCN GUIDELINES™ Clinical Guidelines in Oncology™. © v.3.2014: chronic myelogenous leukemia. National Comprehensive Cancer Network, Inc 2014, All Rights Reserved. http://www.nccn.org/professionals/physician_gls/pdf/cml.pdf

National Comprehensive Cancer Network® (NCCN®). NCCN GUIDELINES™ Clinical Guidelines in Oncology™ ©V.3.2014. Colon cancer. National Comprehensive Cancer Network, Inc. 2014, All Rights Reserved. http://www.nccn.org/professionals/physician_gls/f_guidelines.asp

Hayes Inc. GTE database. The Genecept Assay for Prediction of Response to Medication for Neuropsychiatric Disorders (Genomind LLC). Nov. 2013

Hayes Inc. GTE database STA2R SureGene Test for Antipsychotic and Antidepressant Response for Pharmacogenetic Testing (SureGene LLC) Jan 2014

Hayes Inc. GTE database Cytochrome P450 3A4 (CYP3A4) for Drug Metabolism. Oct. 2012

Hayes Inc. GTE database Cytochrome P450 3A5 (CYP3A5) Testing for Predict Response to Tacrolimus No, 2013

Hayes Inc. GTE database UGT1A1 Sequence Variant Testing for Predicting Response to Irinotecan Therapy in Colorectal Cancer Jan. 2013

Hayes Inc. GTE database Cytochrome P450 Genotyping to Predict Response to Pain Medications for Response to Pain Medications Feb. 2014

Hayes Inc. GTE database CYP2C19 Variant Testing for Determining Response to Clopidogrel Nov. 2012

Hayes Inc. GTE database Cytochrome P450 (CYP450) Genotyping to Predict Response to Antidepressant and Antipsychotic Medications for Pharmacogenetic Testing Nov. 2012

Hayes Inc. GTE database CYP2C9 and VKORC1 Variant Testing for Management of Warfarin Dose Initiation Jun 2012

ECRI Institute Hotline Response. Pharmacogenomic Testing to Guide Treatment of Behavioral Disorders Mar. 2014 http://www.ecri.org.

U.S. Food and Drug Administration. Table of Pharmacogenomic Biomarkers in Drug Labeling. http://www.fda.gov/drugs/scienceresearch/researchareas/pharmacogenetics/ucm083378.htm

OPRM1 gene polymorphism genotype and haplotype. Pharmacogenomics. Nov 2008;9(11):1605-1616.

Haerian BS, Haerian MS. OPRM1 rs1799971 polymorphism and opioid dependence: evidence from a meta-analysis. Pharmacogenomics. May 2013;14(7):813-824.

Jensen KB, Lonsdorf TB, Schalling M, et al. Increased sensitivity to thermal pain following a single opiate dose is influenced by the COMT val(158)met polymorphism. PLoS One. 2009;4(6):e6016.

Klepstad P, Fladvad T, Skorpen F, et al. Influence from genetic variability on opioid use for cancer pain: a European genetic association study of 2294 cancer pain patients. Pain. May 2011;152(5):1139-1145

Kolesnikov Y, Gabovits B, Levin A, et al. Combined catechol-O-methyltransferase and mu-opioid receptor gene polymorphisms affect morphine postoperative analgesia and central side effects. Anesth Analg. Feb 2011;112(2):448-453

Kim KM, Kim HS, Lim SH, et al. Effects of genetic polymorphisms of OPRM1, ABCB1, CYP3A4/5 on postoperative fentanyl consumption in Korean gynecologic patients. Int J Clin Pharmacol Ther. May 2013;51(5):383-392.

Novitas Solutions. Local Coverage Determination (LCD): Biomarkers Overview (L35062) https://www.cms.gov/medicare-coverage-database/details/lcd-details.aspx?LCDId=35062&ver=81&name=314*1&UpdatePeriod=771&bc=AAAAEAAAAAAA&

Ziagen® Product Information, Research Triangle Park, NC. GlaxoSmithKlein

Tegretol® [Product Information], East Hanover, NJ. Novartis Pharmaceuticals Corp

Abbott Laboratories. Press Release: Abbott Introduces New ALK Genetic Test for Specific Form of Non-Small-Cell Lung Cancer Abbott Park, IL

U.S. Food and Drug Administration (FDA). Fatal hypersensitivity reactions, respiratory symptoms, and Ziagen (abacavir sulfate). FDA Medwatch. The FDA Safety Information and Adverse Event Reporting Program. Rockville, MD

Plumpton CO, Roberts D, Pirmohamed M, Hughes DA. A systematic review of economic evaluations of pharmacogenetic testing for prevention of adverse drug reactions. Pharmacoeconomics. 2016;34(8):771-793

Piller C. Proove Biosciences, which sold dubious DNA tests to predict addiction risk, sells off assets as CEO departs amid criminal probe. STAT, August 31, 2017

Health Quality Ontario. Pharmacogenomic testing for psychotropic medication selection: A systematic review of the Assurex GeneSight psychotropic test. Ont Health Technol Assess Ser. 2017;17(4):1-39.

Rosenblat JD, Lee Y, McIntyre RS, et al. Does pharmacogenomic testing improve clinical outcomes for major depressive disorder? A systematic review of clinical trials and cost-effectiveness studies. J Clin Psychiatry. 2017;78(6):720-729

Nakamoto S, Imazeki F, Kanda T, et al. Association of IFNL3 genotype with hepatic steatosis in chronic hepatitis C patients treated with peginterferon and ribavirin combination therapy. Int J Med Sci. 2017;14(11):1088-1093

Gage BF, Bass AR, Lin H, et al. Effect of genotype-guided warfarin dosing on clinical events and anticoagulation control among patients undergoing hip or knee arthroplasty. The GIFT randomized clinical trial. JAMA 2017;318(12):1115-1124

This policy will be revised as necessary and reviewed no less than annually.

Devised: 03/2010

Revised: 8/13 (added coverage for Medicare business segment), 9/14 (expanded policy scope), 4/15 (added panels to exclusions); 7/15 (added Medicare coverage); 8/17 (add indications and exclusions); 8/18 (add indications and exclusions)

Reviewed: 3/11, 3/12, 3/13, 9/16