I. Policy: Autonomic Testing

II. Purpose/Objective: To provide a policy of coverage regarding Autonomic Testing

III. Responsibility:
   A. Medical Directors
   B. Medical Management

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

e. 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.
DESCRIPTION: Autonomic testing is a battery of tests that evaluates the sympathetic, parasympathetic, and enteric nervous system. This policy focuses on the standard tests of sudomotor (sympathetic cholinergic), cardiovagal (parasympathetic) and sympathetic adrenergic system function:

- Cardiovagal function (heart rate variability, response to deep breathing and Valsalva)
- Vasomotor adrenergic function (blood pressure response to standing, Valsalva, and hand grip, tilt table testing)
- Sudomotor function (QSART, QST, TST, silastic sweat test)

Autonomic testing is an integral component of the clinical evaluation of members with autonomic disorders.

INDICATIONS: Autonomic testing is considered medically necessary in the evaluation of any of the following conditions:

- Diagnose the presence of autonomic neuropathy when signs or symptoms suggest a progressive autonomic neuropathy, including, but not limited to:
  - Diabetic neuropathy
  - Amyloid neuropathy
  - Sjögren’s syndrome
  - Idiopathic neuropathy
  - Pure autonomic failure
  - Multiple system atrophy
- Evaluate orthostatic hypotension in a member with dizziness, a drop in blood pressure, or syncope upon standing
- Differentiate certain complicated variants of syncope from other causes of loss of consciousness.
- Evaluate the severity and distribution of a diagnosed progressive autonomic neuropathy.
- Diagnose and differentiate the cause of postural tachycardia syndrome.
- Evaluate change in type, distribution or severity of autonomic deficits in members with autonomic failure.
- Diagnose axonal neuropathy or suspected autonomic neuropathy in the symptomatic member
- In central neurodegenerative disorders, especially the synucleinopathies, distinguish multiple system atrophy from Parkinson’s disease and diffuse Lewy body disease.

EXCLUSIONS:
Autonomic testing using automated devices, in which software automatically generates an interpretation, has not been validated (e.g., ANSAR ANX 3.0, SUDOSCAN, VitalScan, Neuropad, EZScan, or electrochemical skin conductance [ESC]). There is insufficient evidence in the published, peer-reviewed medical literature to support the use of these devices. They are therefore considered to be experimental, investigational or unproven and NOT COVERED.

There is insufficient evidence in the published, peer-reviewed medical literature to support the use of autonomic testing in any of the following. The use of autonomic testing for these conditions is considered to be experimental, investigational or unproven and therefore NOT COVERED.

- Myofascial pain syndrome/fibromyalgia
- Raynaud’s phenomenon
- Predicting foot ulcers
- Flushing syndrome
- Chronic fatigue syndrome
- Generalized hyperhidrosis
- Palmoplantar hyperhidrosis
- Irritable bowel syndrome
- Somatization disorder
- Anxiety disorder

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

CODING ASSOCIATED WITH: Autonomic 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.
Vasomotor adrenergic innervation (sympathetic adrenergic function), including beat-to-beat blood pressure and R-R interval changes during Valsalva maneuver and at least 5 minutes of passive tilt

Sudomotor, including one or more of the following: quantitative sudomotor axon reflex test (QSART), silastic sweat imprint, thermoregulatory sweat test, and changes in sympathetic skin potential

Combined parasympathetic and sympathetic adrenergic function testing with at least 5 minutes of passive tilt

Simultaneous, independent, quantitative measures of both parasympathetic function and sympathetic function, based on time-frequency analysis of heart rate variability concurrent with time-frequency analysis of continuous respiratory activity, with mean heart rate and blood pressure measures, during rest, paced (deep) breathing, Valsalva maneuvers, and head-up postural change


**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 supersede this policy. For PA Medicaid Business segment, this policy applies as written.

**REFERENCES:**


Abi-Samra F, Maloney JD, Fouad-Tarazi FM, Castle LW. The usefulness of head-up tilt testing and hemodynamic investigations in the workup of syncope of unknown origin. Pacing Clin Electrophysiol. 1988;11(8):1202-1214


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

Devised: 7/19
Revised: 7/21 (add device examples)
Reviewed: 7/20

Geisinger Health Plan may refer collectively to health care coverage sponsors Geisinger Health Plan, Geisinger Quality Options, Inc., and Geisinger Indemnity Insurance Company, unless otherwise noted. Geisinger Health Plan is part of Geisinger, an integrated health care delivery and coverage organization.

Coverage for experimental or investigational treatments, services and procedures is specifically excluded under the member's certificate with Geisinger Health Plan. Unproven services outside of an approved clinical trial are also specifically excluded under the member's certificate with Geisinger Health Plan. This policy does not expand coverage to services or items specifically excluded from coverage in the member's certificate with Geisinger Health Plan. Additional information can be found in MP015 Experimental, Investigational or Unproven Services.

Prior authorization and/or pre-certification requirements for services or items may apply. Pre-certification lists may be found in the member's contract specific benefit document. Prior authorization requirements can be found at https://www.geisinger.org/health-plan/providers/ghp-clinical-policies

Please be advised that the use of the logos, service marks or names of Geisinger Health Plan, Geisinger Quality Options, Inc. and Geisinger Indemnity Insurance Company on a marketing, press releases or any communication piece regarding the contents of this medical policy is strictly prohibited without the prior written consent of Geisinger Health Plan. Additionally, the above medical policy does not confer any endorsement by Geisinger Health Plan, Geisinger Quality Options, Inc. and Geisinger Indemnity Insurance Company regarding the medical service, medical device or medical lab test described under this medical policy.