I. Policy:
Alpha 1-Antitrypsin Inhibitor Therapy (Prolastin-C, Aralast, Zemaira, Glassia)

II. Purpose/Objective:
To provide a policy of coverage regarding Alpha 1-Antitrypsin Inhibitor Therapy (Prolastin-C, Aralast, Zemaira, Glassia)

III. Responsibility:
A. Medical Directors
B. Medical Management
C. Pharmacy 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
3. the department requiring/authoring the policy.
4. Devised – the date the policy was implemented.
5. Revised – the date of every revision to the policy, including typographical and grammatical changes.
6. 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 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

Medical 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:
Alpha 1-antitrypsin (AAT) deficiency is an autosomal co-dominant genetic condition that may predispose people with the condition to emphysema in adult life, and liver disease in adults and children. In rare cases, alpha-1 antitrypsin deficiency also causes a skin condition characterized by hardened skin with painful lumps or patches.

CRITERIA FOR USE: Requires Prior Authorization by Medical Director or Designee

Alpha 1-antitrypsin inhibitor therapy will be considered medically necessary when all of the following criteria are met:

Diagnosis of emphysema secondary to alpha 1-antitrypsin deficiency when all of the following criteria are met:

- The insured individual has a diagnosis of panacinar emphysema and a documented decline in forced expiratory volume in 1 second (FEV₁) in spite of optimal medical therapy (e.g., bronchodilators, inhaled or oral corticosteroids, oxygen, if indicated); AND
- The insured individual has a phenotype* associated with causing serum alpha 1-antitrypsin of less than 80 mg/dL [PiZZ, PiZ(null), or Pi(null)(null)]; AND
- The insured individual has an alpha 1-antitrypsin serum level below the value of 35% of normal (less than 80 mg/dL), which is considered to be the threshold thought to protect against emphysema; AND
- The insured individual is a non-smoker or ex-smoker (This criterion is not applicable to Medicare business segment)

*Note:

<table>
<thead>
<tr>
<th>Phenotype</th>
<th>Risk</th>
<th>Commercial standard plasma level, mg/dL</th>
</tr>
</thead>
<tbody>
<tr>
<td>MM</td>
<td>No increased risk</td>
<td>150-350</td>
</tr>
<tr>
<td>MZ</td>
<td>Possible mild increased risk</td>
<td>90-210</td>
</tr>
<tr>
<td>SS</td>
<td>No increased risk</td>
<td>100-200</td>
</tr>
<tr>
<td>SZ</td>
<td>Mild increased risk (20-50%)</td>
<td>75-120</td>
</tr>
<tr>
<td>ZZ</td>
<td>High risk (80-100%)</td>
<td>20-45</td>
</tr>
<tr>
<td>null</td>
<td>High risk (100% by age 30 yrs)</td>
<td>0</td>
</tr>
</tbody>
</table>


AUTHORIZATION DURATION: Initial approval will be for 12 months or less if the reviewing provider feels it is medically appropriate. Subsequent approvals will be for an additional 12 months or less if the reviewing provider feels it is medically appropriate and will require medical record documentation of continued disease improvement or lack of disease progression. The medication will no longer be covered if patient experiences toxicity or worsening of disease.
LIMITATIONS: There is insufficient evidence in the published, peer-reviewed medical literature of any proven value in initiating alpha 1-antitrypsin inhibitor replacement therapy in affected individuals who lack clinical evidence of emphysema. The use of alpha 1-antitrypsin augmentation therapy in this population is considered experimental, investigational or unproven, and is NOT COVERED.

Additional information:
The greatest risk of emphysema occurs in those individuals with the rare homozygous null phenotype who completely lack Alpha 1-antitrypsin [Pi(null) (null)] or those with other rare phenotypes who produce only 1 to 2% of normal levels [PiZ(null)].

A person who inherits a normal gene, phenotype [PiMM], from one parent and an AAT deficient gene, (PiZZ phenotype) from the other parent becomes a carrier of the AAT-deficient gene. Few if any symptoms will appear in a person said to be a carrier of the gene.

If one parent is a carrier phenotype, and the other is normal phenotype, they have a 50/50 chance of having a carrier child.

If both parents are carriers, they can pass down normal, carrier or AAT-deficient genes to their children.

LINE OF BUSINESS:
Eligibility and contract specific benefit limitations and/or exclusions will apply. Coverage statements found in the line of business specific benefit document will supersede this policy.

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

Devised: 10/2006

Revised: 08/14, 03/24/15

Reviewed: 02/08, 3/09, 5/10, 6/11, 08/14, 3/31/16, 1/31/17, 10/31/17, 9/28/18, 8/29/19, 8/26/20, 8/19/21