



## Medical Policy Bulletin

Title:

GIVOSIRAN (GIVLAARI®)

Policy #:

MA08.112

This Policy Bulletin document describes the status of CMS coverage, medical terminology, and/or benefit plan documents and contracts at the time the document was developed. This Policy Bulletin will be reviewed regularly and be updated as Medicare changes their regulations and guidance, scientific and medical literature becomes available, and/or the benefit plan documents and/or contracts are changed.

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### Policy

**Coverage is subject to the terms, conditions, and limitations of the member's Evidence of Coverage.**

### **MEDICALLY NECESSARY**

#### INITIAL THERAPY

Initiation of givosiran (Givlaari®) is considered medically necessary and, therefore, covered if the following criteria are met:

- I. Individual is 18 years of age or older; AND
- II. Individual has a diagnosis of acute hepatic porphyria, and confirmation of one of the following subtypes:
  - A. Acute intermittent porphyria (AIP); OR
  - B. Hereditary coproporphyria (HCP), OR
  - C. Variegate porphyria (VP); OR
  - D. ALA dehydratase-deficiency porphyria (ADP); AND
- III. Individual has documentation of elevated urinary or plasma porphobilinogen (PBG) or delta-aminolevulinic acid (ALA) within the past year; AND
- IV. Individual meets one of the following criteria:
  - A. Individual has active symptomatic disease, with at least two documented porphyria attacks within the last six months; OR
  - B. Individual is currently on prophylactic hemin treatment due to history of severe or frequent porphyria attacks.

V. DOSING & FREQUENCY: The recommended dosing for Givlaari (givosiran) by the FDA of 2.5mg/kg given subcutaneously (SC) once every month by a healthcare provider is followed, and injections are administered in a facility that is equipped and staffed to handle any anaphylactic reactions that may occur.

#### **CONTINUATION THERAPY**

Continuation of givosiran (Givlaari®) is considered medically necessary and, therefore, covered if the following criteria are met:

I. Individual has experienced a clinical response to therapy (for example, a reduction in the number of porphyria attacks, or a reduction in hemin requirements for acute attacks); AND

II. Individual does not have severe or clinically significant transaminase elevations, defined as alanine aminotransferase (ALT) greater than 5 times the upper limit of normal.

#### **EXPERIMENTAL/INVESTIGATIONAL**

Givosiran (Givlaari®) is considered experimental/investigational and, therefore, not covered for the following:

I. For concurrent use of prophylactic hemin treatment with givosiran (Givlaari®); OR

II. When liver transplantation is anticipated; OR

III. When an individual has a history of recurrent pancreatitis; OR

IV. When an individual is requesting for other forms of porphyria, such as cutaneous porphyrias (for example, porphyria cutanea tarda [PCT]); OR

V. When the above criteria are not met and for all other indications.

#### **REQUIRED DOCUMENTATION**

The individual's medical record must reflect the medical necessity for the care provided. These medical records may include, but are not limited to: records from the professional provider's office, hospital, nursing home, home health agencies, therapies, and test reports.

The Company may conduct reviews and audits of services to our members, regardless of the participation status of the provider. All documentation is to be available to the Company upon request. Failure to produce the requested information may result in a denial for the drug.

All requests for givosiran (Givlaari®) require review by the Company per the policy criteria detailed in this policy bulletin.

When coverage of givosiran (Givlaari®) is requested outside of the Dosing and Frequency Requirements listed in this policy, the prescribing professional provider must supply documentation (i.e., published peer-reviewed literature) to the Company that supports this request.

## **BILLING REQUIREMENTS**

Inclusion of a code in this policy does not imply reimbursement. Eligibility, Evidence of Coverage, benefits, limitations, exclusions, precertification/referral requirements, provider contracts, and Company policies apply.

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### [Guidelines](#)

#### **BENEFIT APPLICATION**

##### **MANDATES**

This policy is consistent with applicable state mandates. The laws of the state where the evidence of coverage is issued determine the mandated coverage.

Subject to the terms and conditions of the applicable Evidence of Coverage, givosiran (Givlaari®) is covered under the medical benefits of the Company's Medicare Advantage products when the medical necessity criteria and Dosing and Frequency Requirements listed in this medical policy are met.

However, services that are identified in this policy as experimental/investigational are not eligible for coverage or reimbursement by the Company.

#### **DOSING AND FREQUENCY REQUIREMENTS**

For detailed information about Dosing and Frequency Requirements, please see the Policy section, above.

The Company reserves the right to modify the Dosing and Frequency requirements listed in this policy to ensure consistency with the most recently published recommendations for the use of givosiran (Givlaari®). Changes to these guidelines are based on a consensus of information obtained from resources such as, but not limited to: the US Food and Drug Administration (FDA); Company-recognized authoritative pharmacology compendia; or published peer-reviewed clinical research. The professional provider must supply supporting documentation (i.e., published peer-reviewed literature) in order to request coverage for an amount of givosiran (Givlaari®) outside of the Dosing and Frequency Requirements listed in this policy. For a list of Company-recognized pharmacology compendia, view our policy on off-label coverage for prescription drugs and biologics.

Accurate member information is necessary for the Company to approve the requested dose and frequency of this drug. If the member's dose, frequency, or regimen changes (based on factors such as changes in member weight or incomplete therapeutic response), the provider must submit those changes to the Company for a new approval based on those changes as part of the utilization management activities. The Company reserves the right to conduct post-payment review and audit procedures for any claims submitted for givosiran (Givlaari®).

#### **US FOOD AND DRUG ADMINISTRATION (FDA) STATUS**

Givosiran (Givlaari®) was approved by the FDA on November 20, 2019 for the treatment of adult patients with acute hepatic porphyria (AHP).

## **BILLING GUIDELINES**

Inclusion of a code in this policy does not imply reimbursement. Eligibility, Evidence of Coverage, benefits, limitations, exclusions, precertification/referral requirements, provider contracts, and Company policies apply.

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## **Description**

### **ACUTE HEPATIC PORPHYRIA (AHP)**

Acute hepatic porphyria (AHP), caused by gene mutations, has four distinct subtypes. All are due to missing or deformed genes that produce enzymes involved in the production of heme. Because particles generated in the process of making heme cannot be cleared by individuals who have AHP, toxins that build up in the liver cause unpredictable episodes of pain and other symptoms. Attacks may be associated with triggers, such as certain drugs, smoking or stress, but many have no identifiable cause. Not all individuals have frequent episodes, however, and some cases are milder than others. In the United States, about one person in 25,000 is believed to have some form of porphyria, equaling around 13,000 individuals. Porphyria affects all ethnic groups and all ages. The majority of individuals who have AHP will experience symptoms between the ages of 18 and 45. AHP is more likely to manifest in women than in men; however, symptoms/attacks tend to decrease when women are nearing the age of menopause. Currently, treatments for AHP address only the symptoms/attacks, not the causes of the condition (prophylaxis). They include antihypertensives, pain relievers, and infusions of hemin (an enzyme inhibitor) for acute attacks.

### **GIVOSIRAN (GIVLAARI®)**

Givosiran (Givlaari®) is an aminolevulinate synthase 1--directed small interfering RNA that causes degradation of aminolevulinate synthase 1 (ALAS1) mRNA in hepatocytes through RNA interference, reducing the elevated levels of liver ALAS1 mRNA. This leads to reduced circulating levels of neurotoxic intermediates aminolevulinic acid (ALA) and uroporphobilinogen (PBG), factors associated with attacks and other disease manifestations of AHP.

givosiran (Givlaari®) is indicated for the treatment of adult individuals with AHP, a genetic disorder resulting in the buildup of toxic porphyrin molecules which are formed during the production of heme (which helps bind oxygen in the blood). Individuals who have the condition are missing or have defects in some of the liver enzymes important in eliminating byproducts of making heme, the iron-rich part of blood that moves oxygen around the body. As a result of the toxins (porphyrins) that accumulate, individuals who have AHP experience sudden attacks that often involve intense pain that may last for several days or weeks, and that can lead to hypertension, neurologic damage, respiratory failure, seizures, and even death.

On November 20, 2019, The U.S. Food and Drug Administration (FDA) approved Alnylam Pharmaceutical's drug givosiran (Givlaari®) subcutaneous injection. The FDA also designated givosiran (Givlaari®) as an Orphan Drug, under both Breakthrough Therapy and Priority Review programs. Approval was based on positive results from the ENVISION Phase 3 study, a randomized, double-blind, placebo-controlled, multinational study of 94 individuals with AHP, at 36 study sites in 18 countries, the largest interventional study conducted on AHP. In ENVISION, individuals with AHP who received givosiran (Givlaari®) experienced 70% (95% CI: 60%, 80%) fewer porphyria attacks compared to placebo over 6 months. Givosiran (Givlaari®) also resulted in a similar reduction in intravenous hemin use, as well as reductions in urinary aminolevulinic acid (ALA), and urinary uroporphobilinogen (PBG). Treated individuals had less need for hemin infusions, emergency room services, and hospitalizations, as well.

In the pivotal ENVISION study, the most common adverse reactions (reported in at least 20% of individuals) with givosiran (Givlaari®) were nausea (27%) and injection site reactions (25%). Other adverse reactions seen in individuals treated with givosiran (Givlaari®) (occurring over 5% more frequently than placebo) include rash, serum creatinine increase, transaminase elevations, and fatigue. There are warnings for anaphylactic reaction, hepatic toxicity, renal toxicity, and injection site reactions.

The recommended dosing for givosiran (Givlaari®) is 2.5mg/kg given subcutaneously (SC) once every month by a healthcare provider. Injections should be administered in a facility that is equipped and staffed to handle any anaphylactic reactions that may occur.

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## References

Balwani M, Gouya L, Rees DC, et al. ENVISION, a Phase 3 Study to Evaluate the Efficacy and Safety of Givosiran, an Investigational RNAi Therapeutic Targeting Aminolevulinic Acid Synthase 1, in Acute Hepatic Porphyria Patients. April 13, 2019. European Association for the Study of the Liver (EASL) 54th Annual International Liver Congress. Vienna, Austria.

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## Coding

**Inclusion of a code in this table does not imply reimbursement. Eligibility, benefits, limitations, exclusions, precertification/referral requirements, provider contracts, and Company policies apply.**

**The codes listed below are updated on a regular basis, in accordance with nationally accepted coding guidelines. Therefore, this policy applies to any and all future applicable coding changes, revisions, or updates.**

**In order to ensure optimal reimbursement, all health care services, devices, and pharmaceuticals should be reported using the billing codes and modifiers that most accurately represent the services rendered, unless otherwise directed by the Company.**

**The Coding Table lists any CPT, ICD-10, and HCPCS billing codes related only to the specific policy in which they appear.**

CPT Procedure Code Number(s)

N/A

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ICD - 10 Procedure Code Number(s)

N/A

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ICD - 10 Diagnosis Code Number(s)

E80.20 Unspecified porphyria  
E80.21 Acute intermittent (hepatic) porphyria  
E80.29 Other porphyria

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[HCPCS Level II Code Number\(s\)](#)

J0223 Injection, givosiran, 0.5 mg

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[Policy History](#)

**MA08.112:**

05/02/2022	This new medical policy has been created to communicate Company's coverage position and criteria for givosiran (Givlaari®). This medical policy will be effective as of 05/02/2022.
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Version Effective Date:

05/02/2022

Version Issued Date:

05/02/2022

Version Reissued Date:

N/A