PRIOR AUTHORIZATION POLICY

POLICY: Lipodystrophy – Egrifta® (tesamorelin injection – EMD Serono)

DATE REVIEWED: 04/15/2020

OVERVIEW

Egrifta is an analog of human growth hormone-releasing factor (GRF), indicated for the reduction of excess abdominal fat in human immunodeficiency virus (HIV)-infected patients with lipodystrophy. ¹⁻³ At this time, the long-term cardiovascular (CV) safety and potential long-term CV benefit are not established and careful consideration should be given to continue Egrifta in patients who do not show a clear efficacy response, as judged by the degree of reduction in visceral adipose tissue. ¹ Egrifta has a weight-neutral effect and is not indicated for weight loss management. There are no data supporting improved compliance with anti-retroviral therapies in HIV-positive patients who take Egrifta. In the pivotal trial, all patients had lipodystrophy and excess abdominal fat, evidenced by a waist circumference \geq 95 cm (\geq 94 cm for women) and a waist-to-hip ratio \geq 0.94 (\geq 0.88 for women). Patients were required to be on a stable antiretroviral regimen for at least 8 weeks. Safety and effectiveness of Egrifta have been established in patients between the ages of 18 and 65 years of age.

Disease Overview

Lipodystrophy is the change in body fat which affects some patients with HIV infection, either due HIV infection or due to medication to treat HIV.⁵ Egrifta binds and stimulates human GRF receptors with similar potency as endogenous GRF. GRF stimulates the synthesis and pulsatile release of endogenous growth hormone (GH), which is both anabolic and lipolytic. GH exerts its effect by interacting with receptors on a variety of target cells resulting in the pharmacodynamic effect. A decrease in nocturnal secretion of GH and insulin-like growth factor 1 (IGF-1) is associated with increased visceral adipose tissue (VAT) in patients with HIV-associated lipodystrophy.² Egrifta increases secretion of GH and has been shown to decrease VAT and spare subcutaneous adipose tissue (SAT).³⁻⁴ Egrifta is contraindic ated in patients with disruption of the hypothalamic-pituitary axis due to hypophysectomy, hypopituitarism, pituitary tumor or surgery, head irradiation, or head trauma; patients with known hypersensitivity to Egrifta or mannitol; pregnant women; and in patients with an active malignancy.¹ Any pre-existing malignancy should be inactive; patients should complete treatment prior to beginning Egrifta.

Other The rapies

There are no other therapies approved specifically for treatment of HIV-associated lipodystrophy and treatment options are limited.⁵⁻⁶ Administration of GH has demonstrated a significant decrease in VAT, but also a decrease in SAT, compared with placebo.⁷ Management strategies for lipodystrophy include: switching antiretroviral therapy, exercise and diet, cosmetic procedures (e.g., liposuction, facial fillers), and prevention of lipodystrophy by selection of regimens less likely to cause lipohypertrophy.⁶

Safe ty

Because the long-term CV safety and potential long-term CV benefit are not established, careful consideration should be given whether to continue Egrifta treatment in patients who do not show a clear efficacy response, as judged by the degree of reduction in visceral adipose tissue measured by waist circumference or CT scan. In the pivotal studies, efficacy of Egrifta was assessed at Week 26. Because Egrifta induces the release of endogenous GH(a known growth factor) and increases serum IGF-1, the benefits of treatment should be weighed against the increased risk of malignancies in HIV-positive patients. Since the effect of prolonged IGF-1 elevations on the development or progression of malignancies is unknown, monitor IGF-1 levels closely during Egrifta therapy and consider

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discontinuation in patients with persistent elevations of IGF-1 levels (e.g., > 3 standard deviation scores [SDS]), especially if the patient has not experienced a robust response. Egrifta should be used with caution in patients who develop glucose intolerance or diabetes; discontinuation of therapy should be considered for patients who do not show a clear efficacy response.

POLICY STATEMENT

Prior authorization is recommended for prescription benefit coverage of Egrifta. Because of the specialized skills required for evaluation and diagnosis of patients treated with Egrifta as well as the monitoring required for adverse events and long-term efficacy, initial approval requires Egrifta to be prescribed by or in consultation with a physician who specializes in the condition being treated. In the approval indication, as appropriate, an asterisk (*) is noted next to the specified gender. In this context, the specified gender is defined as follows: men are defined as individuals with the biological traits of a man, regardless of the individual's gender identity or gender expression. When approvals are authorized in months, 1 month is equal to 30 days.

Automation: None.

RECOMMENDED AUTHORIZATION CRITERIA

Coverage of Egrifta is recommended in those who meet the following criteria:

FDA-Approved Indications

- **1. Lipodystrophy in Human Immunodeficiency Virus (HIV)-Infected Patients.** Approve for the duration noted if the patient meets ONE of the following (A or B):
 - **A)** <u>Initial Therapy</u>. Approve for 6 months if the patient meets ALL of the following criteria (i, ii, iii, iv, and v):
 - i. The patient is ≥ 18 years of age; AND
 - ii. Egrifta is prescribed for the reduction of excess abdominal fat; AND
 - **iii.** The patient meets ONE of the following (1 or 2):
 - (1) If male*, waist circumference is \geq 95 cm (37.4 in) and waist-to-hip ratio is \geq 0.94; OR
 - (2) If female*, waist circumference is ≥ 94 cm (37 in) and waist-to-hip ratio is ≥ 0.88 ; AND
 - iv. The patient has been stable on an anti-retroviral regimen for at least 8 weeks.
 - <u>Note</u>: Examples include antiretroviral regimens containing protease inhibitors, nucleoside reverse-transcriptase inhibitors, and/or nonnucleoside reverse-transcriptase inhibitors; AND
 - v. Egrifta is prescribed by or in consultation with an endocrinologist or a physician specializing in the treatment of human immunodeficiency virus (HIV) infection (e.g., infectious disease [ID], oncology).
 - **B)** Patient is Currently Receiving Egrifta. Approve for 1 year if the patient has responded, as determined by the prescriber.
 - <u>Note</u>: Examples of a response include reduction in visceral adipose tissue measured by waist circumference or computed tomography (CT) scan.

CONDITIONS NOT RECOMMENDED FOR APPROVAL

Egrifta has not been shown to be effective, or there are limited or preliminary data or potential safety concerns that are not supportive of general approval for the following conditions. Rationale for non-

^{*} Refer to the Policy Statement.

coverage for these specific conditions is provided below. (Note: This is not an exhaustive list of Conditions Not Recommended for Approval.)

- 1. Abdominal Obesity in Patients without Human Immunodeficiency Virus (HIV) Infection. More data are needed. Egrifta has been studied in a very limited number patients who have abdominal obesity without HIV infection.⁸ To be eligible for the published trial, patients were required to have a peak stimulated GH no higher than 9 μg/L on a standardized GH-releasing hormone (GHRH)-arginine stimulation test. Patients (n = 60) were randomized in a 1:1 ratio to treatment with Egrifta 2 mg once daily (QD) or placebo. The primary endpoint was the change in VAT from baseline. Over 12 months (using last observation carried forward [LOCF]), VAT improved significantly in patients treated with Egrifta compared with placebo (net treatment effect vs. placebo: -35 [95% confidence interval {CI}: -58, -12]; P = 0.003). Treatment with Egrifta increased IGF-1 by 90%, decreased triglycerides by 20%, and decreased log C-reactive protein (CRP) by 24% compared with placebo. There was no effect on total cholesterol, high-density lipoprotein cholesterol (HDL-C), or low-density lipoprotein cholesterol (LDL-C) in the treatment groups.
- 2. Human Immunodeficiency Virus (HIV)-Related Cachexia, Weight Loss, or Fat Distribution other than Lipodystrophy. Egrifta has not been studied in these conditions.
- 3. Patients > 65 Years of Age. There is no information on the use of Egrifta in patients greater than 65 years of age with HIV and lipodystrophy.¹
- **4.** Coverage is not recommended for circumstances not listed in the Recommended Authorization Criteria. Criteria will be updated as new published data are available.

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OTHER REFERENCES UTILIZED

- Panel on Antiretroviral Therapy and Medical Management of HIV-Infected Children. Guidelines for the Use of Antiretroviral Agents in Pediatric HIV Infection. Updated December 24, 2019. Available at: http://aidsinfo.nih.gov/contentfiles/lvguidelines/pediatricguidelines.pdf. Accessed April 13, 2020.
- Panel on Antiretroviral Guidelines for Adults and Adolescents. Guidelines for the use of antiretroviral agents in HIV-1-infected adults and adolescents. Department of Health and Human Services. Updated December 18, 2019. Available at: http://aidsinfo.nih.gov/contentfiles/lvguidelines/adultandadolescentgl.pdf. Accessed April 13, 2020.

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•	Mangili A, Falutz J, Mamputu JC, et al. Predictors of treatment response to tesamorelin, a growth hormone-releasing factor analog, in HIV-infected patients with excess abdominal fat. <i>PLoS One</i> . 2015;10(10):e0140358.