
5.21.224

Section:	Prescription Drugs	Effective Date:	October 1, 2025
Subsection:	Hematological Agents	Original Policy Date:	July 5, 2024
Subject:	Rytelo	Page:	1 of 4

Last Review Date: September 19, 2025

Rytelo

Description

Rytelo (imetelstat)

Background

Rytelo (imetelstat) is an oligonucleotide human telomerase inhibitor that binds to the template region of the RNA component of human telomerase (hTR), inhibits telomerase enzymatic activity, and prevents telomere binding. Increased telomerase activity and human telomerase reverse transcriptase (hTERT) RNA expression have been reported in myelodysplastic syndromes (MDS) and malignant stem and progenitor cells. Nonclinical studies showed Rytelo treatment led to reduction of telomere length, reduction of malignant stem and progenitor cell proliferation, and induction of apoptotic cell death (1).

Regulatory Status

FDA-approved indications: Rytelo is an oligonucleotide telomerase inhibitor indicated for the treatment of adult patients with low- to intermediate-1 risk myelodysplastic syndromes (MDS) with transfusion-dependent anemia requiring 4 or more red blood cell units over 8 weeks who have not responded to or have lost response to or are ineligible for erythropoiesis-stimulating agents (ESA) (1).

Rytelo use has been associated with thrombocytopenia, neutropenia, and infusion-related reactions. Complete blood cell counts should be obtained prior to initiation of Rytelo, weekly for the first two cycles, and prior to each cycle thereafter. Patients should be premedicated at least 30 minutes prior to infusion with diphenhydramine and hydrocortisone as recommended and patients should be monitored for at least one hour following the infusion as recommended (1).

Section:	Prescription Drugs	Effective Date:	October 1, 2025
Subsection:	Hematological Agents	Original Policy Date:	July 5, 2024
Subject:	Rytelo	Page:	2 of 4

Rytelo may cause fetal harm when administered to a pregnant woman. Pregnant women should be advised of the potential risk to a fetus. Females of reproductive potential should use an effective method of contraception during treatment with Rytelo and for at least 1 week after the last dose (1).

The safety and effectiveness of Rytelo in pediatric patients less than 18 years of age have not been established (1).

Related policies

Policy

This policy statement applies to clinical review performed for pre-service (Prior Approval, Precertification, Advanced Benefit Determination, etc.) and/or post-service claims.

Rytelo may be considered **medically necessary** if the conditions indicated below are met.

Rytelo may be considered **investigational** for all other indications.

Prior-Approval Requirements

Age 18 years of age or older

Diagnosis

Patient must have the following:

Anemia with myelodysplastic syndromes (MDS)

AND ALL of the following:

1. Low- or intermediate-1 risk MDS
2. Transfusion-dependent anemia
3. Patient requires 4 or more red blood cell units over 8 weeks
4. Has not responded to, has lost response to, or ineligible for erythropoiesis-stimulating agents (ESA)
5. Females of reproductive potential **only**: patient will be advised to use effective contraception during treatment with Rytelo and for 1 week after the last dose

Section:	Prescription Drugs	Effective Date:	October 1, 2025
Subsection:	Hematological Agents	Original Policy Date:	July 5, 2024
Subject:	Rytelo	Page:	3 of 4

Prior – Approval *Renewal* Requirements

Age 18 years of age or older

Diagnosis

Patient must have the following:

Anemia with myelodysplastic syndromes (MDS)

AND ALL of the following:

1. Patient has experienced a decrease in red blood cell (RBC) transfusion burden
2. **NO** unacceptable toxicity
3. Females of reproductive potential **only**: patient will be advised to use effective contraception during treatment with Rytelo and for 1 week after the last dose

Policy Guidelines

Pre - PA Allowance

None

Prior - Approval Limits

Duration 6 months

Prior – Approval *Renewal* Limits

Same as above

Rationale

Summary

Rytelo (imetelstat) is indicated for the treatment of low- to intermediate-1 risk MDS with transfusion-dependent anemia requiring 4 or more red blood cell units over 8 weeks who have not responded to or have lost response or are ineligible for ESA. The safety and effectiveness of Rytelo in pediatric patients less than 18 years of age have not been established (1).

Section:	Prescription Drugs	Effective Date:	October 1, 2025
Subsection:	Hematological Agents	Original Policy Date:	July 5, 2024
Subject:	Rytelo	Page:	4 of 4

Prior approval is required to ensure the safe, clinically appropriate, and cost-effective use of Rytelo while maintaining optimal therapeutic outcomes.

References

1. Rytelo [package insert]. Foster City, CA: Geron Corporation; June 2024.
2. NCCN Drugs & Biologics Compendium[®] Imetelstat 2025. National Comprehensive Cancer Network, Inc. Accessed on July 28, 2025.

Policy History

Date	Action
July 2024	Addition to PA
September 2024	Annual review and reference update
December 2024	Annual review and reference update
September 2025	Annual review and reference update

Keywords

This policy was approved by the FEP[®] Pharmacy and Medical Policy Committee on September 19, 2025 and is effective on October 1, 2025.