BlueCross BlueShield Federal Employee Program

REVLIMID
(lenalidomide)

RATIONALE FOR INCLUSION IN PA PROGRAM

Background

Revlimid (lenalidomide) is classed as an immunomodulator and is a chemical derivative of thalidomide. Although the exact mechanism of action is unknown, lenalidomide also has anti-inflammatory and anticancer properties. It selectively inhibits secretion of inflammatory cells, enhances the activity of immunity cells, and inhibits the growth of new blood vessels. The medication stops the growth of myeloma cells by causing cell cycle arrest and cell death (1).

Regulatory Status

FDA-approved indications: Revlimid is a thalidomide analogue indicated for the treatment of patients with: (1)

1. Multiple myeloma (MM), in combination with dexamethasone
2. Multiple myeloma (MM), as maintenance following autologous hematopoietic stem cell transplantation (auto-HSCT)
3. Transfusion-dependent anemia due to low- or intermediate-1-risk myelodysplastic syndromes (MDS) associated with a deletion 5q abnormality with or without additional cytogenetic abnormalities
4. Mantle cell lymphoma (MCL) whose disease has relapsed or progressed after two prior therapies, one of which included bortezomib (Velcade)
5. Previously treated follicular lymphoma (FL), in combination with a rituximab product
6. Previously treated marginal zone lymphoma (MZL), in combination with a rituximab product

Limitations of Use:

Revlimid is not indicated and is not recommended for the treatment of patients with chronic lymphocytic leukemia (CLL) outside of controlled clinical trials (1).

Off Label Uses: (2-5)

1. Myelodysplastic syndromes (MDS) – without the 5q deletion cytogenic abnormality
2. Systemic light chain amyloidosis
3. Classical Hodgkin lymphoma
4. Relapsed, refractory, or progressive non-Hodgkin lymphoma (NHL) with any of the following histologies:
    a. Mantle cell lymphoma (MCL)

b. Chronic lymphocytic leukemia (CLL)/small lymphocytic lymphoma (SLL)
c. Diffuse large B-cell lymphoma
d. AIDS-related diffuse large B-cell lymphoma
e. Primary effusion lymphoma
f. Castleman's disease
g. Nongastric/gastric mucosa associated lymphoid tissue (MALT) lymphoma
h. Primary cutaneous B-cell lymphoma

Revlimid includes a boxed warning citing embryo-fetal toxicity, hematologic toxicity and venous and arterial thromboembolism. If Revlimid is used during pregnancy, it may cause birth defects or embryo-fetal death. Pregnancy must be excluded before start of treatment. Pregnancy must be prevented during treatment by the use of two reliable methods of contraception (1).

Revlimid can cause significant neutropenia and thrombocytopenia. For patients with del 5q myelodysplastic syndromes, monitor complete blood counts weekly for the first 8 weeks and monthly thereafter (1).

Revlimid has a significantly increased risk of deep vein thrombosis (DVT) and pulmonary embolism (PE) in patients with multiple myeloma receiving Revlimid with dexamethasone (1).

Because of the embryo-fetal risk, Revlimid is available only through a restricted program under a Risk Evaluation and Mitigation Strategy (REMS), the Lenalidomide REMS program (1).

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

Summary

Revlimid is a thalidomide analogue used for the treatment of multiple myeloma, myelodysplastic syndromes (MDS), non-Hodgkin lymphoma (NHL) with certain histologies, systemic light chain amyloidosis and classical Hodgkin lymphoma. Revlimid includes a boxed warning citing embryo-fetal toxicity, hematologic toxicity and venous and arterial thromboembolism. Because of the embryo-fetal risk, Revlimid is available only through a restricted program under a Risk Evaluation and Mitigation Strategy (REMS), the Lenalidomide REMS program. The safety and effectiveness of

Revlimid in pediatric patients less than 18 years of age have not been established (1).

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

References

1. Revlimid [package insert]. Princeton, NJ: Bristol-Myers Squibb Company; March 2023.
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3. NCCN Clinical Practice Guidelines in Oncology® Multiple Myeloma (Version 1.2025). National Comprehensive Cancer Network, Inc. September 2024. Accessed on October 1, 2024.
4. NCCN Clinical Practice Guidelines in Oncology® B-Cell Lymphomas (Version 3.2024). National Comprehensive Cancer Network, Inc. August 2024. Accessed on October 1, 2024.
5. NCCN Clinical Practice Guidelines in Oncology® Hodgkin's Lymphoma (Version 3.2024). National Comprehensive Cancer Network, Inc. March 2024. Accessed on October 1, 2024.