

# Lenalidomide



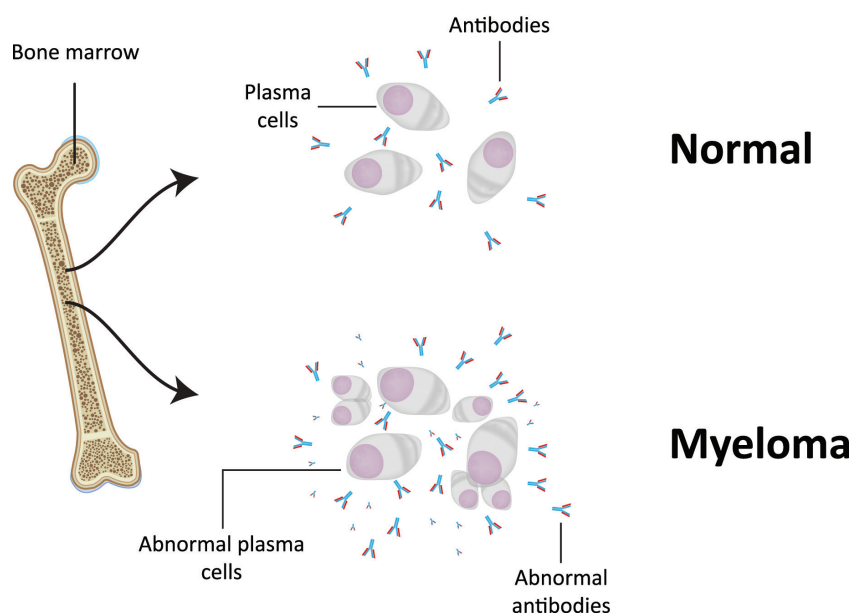
## WHAT IS MYELOMA?

Myeloma is a cancer of the bone marrow. It forms in a type of white blood cell called a plasma cell. Plasma cells help the body to fight infections by making antibodies that recognise and attack germs. These cells crowd out normal bone marrow cells and may spread to other parts of the body, hence the term multiple myeloma.

Myeloma causes symptoms that need treatment for a period, followed by a period of remission where symptoms subside and do not need any treatment. This cycle of remission and recurrence (relapse) often occurs several times over. Your treatment may involve taking a combination of drugs, including some that have been introduced in recent years and have drastically improved myeloma treatment. Combinations of these have been found to be more effective than single drugs. Unfortunately there is not yet a permanent cure but you can expect to enjoy a good quality of life for many years.

MYELOMA IS A CANCER OF THE BONE MARROW. IT FORMS IN A TYPE OF WHITE BLOOD CELLS CALLED PLASMA CELLS, WHICH HELP THE BODY TO FIGHT INFECTIONS BY MAKING ANTIBODIES.

## Myeloma



## WHAT IS LENALIDOMIDE (REVLIMID®)?

Lenalidomide is a cancer medicine approved in Europe in 2007 for the treatment of myeloma in the following situations:

- Patients whose myeloma has been treated at least once previously. In these cases, lenalidomide is used in combination with dexamethasone (an anti-inflammatory medicine).
- Newly diagnosed myeloma patients (i.e. untreated previously) of myeloma, who cannot be given a bone marrow transplant.
- As monotherapy for the maintenance treatment of adult patients with newly diagnosed myeloma who have undergone autologous stem cell transplantation (ASCT).

As myeloma is considered a 'rare disease' because of the small number of patients with this disease, lenalidomide has the designation of 'orphan medicine'.

## HOW DOES LENALIDOMIDE WORK?

Lenalidomide belongs to a group of medicines used in the treatment of myeloma that includes thalidomide and pomalidomide, so far. They work by modulating some activities of the immune system.

Lenalidomide blocks the development of abnormal cells and stimulates some cells of the immune system to destroy them, and prevents the growth of blood vessels within tumours (this limits the growth of the tumour cells).

## SIDE-EFFECTS OF LENALIDOMIDE

The most common side-effects of lenalidomide in the treatment of multiple myeloma are:

- fatigue
- constipation
- diarrhoea
- muscle cramps
- rash
- back pain
- insomnia
- decreased appetite
- cough
- fever
- swelling of ankles/feet
- weakness



And the following blood abnormalities are possible:

- low level of white blood cells (leucopenia) – cells that help fight infection
- low level of neutrophils (neutropenia) – a type of white blood cell
- low level of red blood cells (anaemia)
- low level of blood platelets (thrombocytopenia) – components that help the blood to clot.

Lenalidomide could be harmful to the unborn child. It must not be used by pregnant women or women who may become pregnant. You should consult your doctor if you are or think that you may be pregnant.

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## HOW AND WHEN IS LENALIDOMIDE GIVEN?

Lenalidomide is available as capsules containing various amounts of the medicine (2.5 mg, 5 mg, 7.5 mg, 15 mg, 20 mg and 25 mg).

This drug is taken in repeated cycles of 28 days. Once a day for 21 days, at about the same time each day, followed by seven days without taking the medicine. In those patients who have received at least one prior therapy, the recommended dose is 25 mg of lenalidomide per day.

In newly diagnosed patients with multiple myeloma, the recommended dose is from 10 to 25 mg per day, depending on the other cancer medicines that the patient is taking.

The lenalidomide dose is reduced or the treatment could be interrupted depending on the patient's condition, problems in their kidneys, severity of side-effects, or the levels of neutrophils and platelets in the blood.



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MPE is a network of European myeloma patient organisations. It supports national patient organisations to improve treatment and access for patients in their countries and helps inform and raise awareness on a European level through its educational programmes. Please note, this information does not replace the information provided by your doctor. If there is anything that is not clear to you, please always ask your clinical team

**References**

- European Medicines Agency. Revlimid® (lenalidomide) European public assessment report (EPAR) – lay summary 2016 [http://www.ema.europa.eu/docs/en\\_GB/document\\_library/EPAR\\_-\\_Summary\\_for\\_the\\_public/human/000717/WC500056020.pdf](http://www.ema.europa.eu/docs/en_GB/document_library/EPAR_-_Summary_for_the_public/human/000717/WC500056020.pdf)
- Manufacturer's product information <http://www.revlimid.com/>
- Rajkumar SV, Kumar S. Multiple Myeloma: Diagnosis and Treatment. Mayo Clin Proc. 2016;91(1):101–19.
- Latif T, Chauhan N, Khan R, Moran A, Usmani SZ. Thalidomide and its analogues in the treatment of Multiple Myeloma. Exp Hematol Oncol. 2012;1(1):1.
- Public summary of opinion on orphan designation 3-(4' aminoisoindoline-1'-one)-1-piperidine-2,6-dione for the treatment of multiple myeloma. European Medicines Agency [Internet]. [http://www.ema.europa.eu/docs/en\\_GB/document\\_library/Orphan\\_designation/2009/10/WC500005402.pdf](http://www.ema.europa.eu/docs/en_GB/document_library/Orphan_designation/2009/10/WC500005402.pdf)