

# FACTSHEET

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MYELOMA PATIENTS EUROPE

DARATUMUMAB (Darzalex®)

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# FACT SHEET

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## MYELOMA PATIENTS EUROPE

Myeloma Patients Europe (MPE) has developed a series of factsheets for patients and patient advocates, providing an overview of available treatment options for myeloma and covering some relevant topics related to the disease.

The factsheets cover important issues around the treatment, so that patients can feel safe and ask specific questions to their doctor.

For each of the available therapies, the following topics will be addressed:

- What is myeloma?
- What is the particular treatment?
- How does the treatment work?
- What are the benefits?
- What are the side effects?
- Who should not receive the treatment?
- How and when is the treatment given?

Access the following factsheets on:

- Amyloidosis
- Belantamab mafodotin
- Bortezomib
- Carfilzomib
- Daratumumab
- Elotuzumab
- Ixazomib
- Lenalidomide
- Panobinostat
- Pomalidomide
- Thalidomide
- Stem cell transplant

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Myeloma treatment is constantly evolving and the factsheets will be updated regularly to reflect the latest developments.

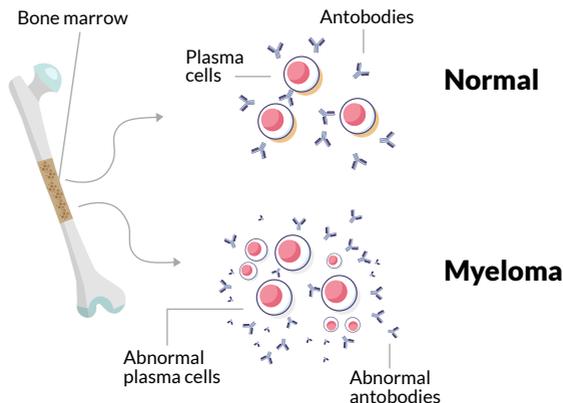
# What is myeloma?

Myeloma is a rare cancer of the bone marrow. It is due to the formation of abnormal plasma cells, also called myeloma cells, which divide uncontrollably. Usually, plasma cells help the body to fight infections by making antibodies that recognise and attack germs. Myeloma affects multiple places in the body (this is why it is sometimes referred to as 'multiple myeloma') where bone marrow is normally active, such as the bones of the spine, pelvis, rib cage and the areas around the shoulders and hips.

Myeloma causes pain, anaemia (low red blood cells), fatigue, fractures, recurring infections, bruising and high blood calcium (hypercalcaemia). These symptoms require treatment; if the disease responds to therapy, there could be periods of time where symptoms subside and may not require any treatment. This cycle of remission and recurrence (relapse) often occurs several times. Many patients, particularly in relapse setting, will be on treatment for a long period of time to ensure that their myeloma is kept at bay.

Treatment may involve taking a combination of drugs that have been found to be more effective than single drugs. Myeloma generally cannot be cured, but survival rates are increasing in myeloma, due to the availability of new treatment and many patients are able to enjoy a good quality of life. A number of other new treatments have recently been approved or are under consideration for use following relapse, or for refractory myeloma.

## Myeloma



# What is daratumumab (Darzalex®)?

Daratumumab is a monoclonal antibody approved in Europe since 2016 for use in myeloma patients. It is used:

- on its own when the disease has progressed despite previous treatment with cancer medicine (including proteasome inhibitors) and immunomodulatory drugs (that act on the immune system), or when the disease has not improved with these medicines
- in combination with lenalidomide and dexamethasone (dara-Rd) or with bortezomib (Velcade), melphalan and prednisone (dara-VMp) in patients with newly diagnosed multiple myeloma who are not eligible for autologous stem cell transplantation (transplant of the patient's own blood-producing cells)
- in combination with bortezomib (Velcade), thalidomide and dexamethasone (dara-VTd) for the treatment of adult patients with newly diagnosed multiple myeloma who are eligible for autologous stem cell transplant
- in combination with dexamethasone plus either lenalidomide (Revlimid; dara-Rd) or bortezomib (Velcade; dara-Vd) in patients who have previously received at least one other treatment for the disease

As multiple myeloma is considered a 'rare disease' because of the small number of patients with this disease, daratumumab was granted 'orphan drug designation' by the European Commission in 2013. An orphan drug designation is a status assigned to medicines developed for rare disease conditions that affect fewer than 5 patients per 10,000 inhabitants in the EU.

## How does daratumumab work?

Daratumumab is a monoclonal antibody that has been designed to recognise and bind to the CD38 protein, which is found on the surface of myeloma cells. By attaching to CD38, daratumumab kills myeloma cells through a direct anti-tumour activity but it also activates the immune system to find and kill the cancer cells.

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## What are the benefits of daratumumab?

The safety and efficacy of daratumumab monotherapy (i.e. when given on its own) was demonstrated in two clinical trials. In one study of 106 patients<sup>3</sup>, 29% of patients had a complete or partial reduction in their myeloma burden, which lasted for an average of 7.4 months. The 12-month overall survival was 64.8% and the median overall survival was 17.5 months. In the second study of 42 patients<sup>4</sup>, 36% had a complete or partial reduction in their tumour burden. Another significant benefit was the stabilisation of the disease reported in approximately 50% of the patients included in these trials, which is relevant as daratumumab stopped the progression of the disease.

Daratumumab in combination with dexamethasone and either lenalidomide or bortezomib was investigated in two Phase III studies involving patients whose multiple myeloma came back after treatment with other medicines or did not respond to treatment. In the first study<sup>5</sup> involving 569 patients, 78% of patients receiving daratumumab and dexamethasone plus lenalidomide for 18 months lived without their disease getting worse compared to 52% of those receiving dexamethasone plus lenalidomide. In the second study<sup>6</sup> involving 498 patients, 61% of patients receiving daratumumab and dexamethasone plus bortezomib for 12 months lived without their disease getting worse compared to 27% of those receiving dexamethasone plus bortezomib.

Daratumumab has also been studied in newly diagnosed patients who are eligible for an autologous stem cell transplantation. In the study<sup>9</sup>, which involved 1,085 patients, daratumumab combined with bortezomib, thalidomide and dexamethasone was compared with a combination of bortezomib, thalidomide and dexamethasone without daratumumab, both given for four treatment cycles before transplantation and two cycles afterwards. After 100 days following transplantation, 29% of patients given the daratumumab combination showed a complete response (no signs of multiple myeloma detectable) compared to 20% of those given bortezomib, thalidomide and dexamethasone alone.

## What are the side effects of daratumumab?

Daratumumab can cause infusion-related reactions [IRR] (which may affect around 1 in 2 people), which may cause symptoms such as:

- breathing problems
- cough
- runny or blocked nose
- throat irritation
- nausea (feeling sick)
- vomiting
- chills

However, most IRR occur during the first infusion and are not severe. You should receive medicines to reduce the risk of IRR before and after the infusion and you should be monitored frequently during the entire infusion. Contact a member of the clinical staff if you notice a reaction. Your doctor may need to reduce the infusion rate or stop treatment if you have a severe reaction.

Other common side effects (affecting at least 1 in 5 people) are<sup>1</sup>:

- fatigue (tiredness)
- fever
- nausea (feeling sick)
- diarrhoea
- muscle spasms
- upper respiratory tract infection (nose and throat infections)
- neutropenia (low white blood cell counts)
- anaemia (low red blood cells)
- thrombocytopenia (low levels of blood platelets)
- peripheral sensory neuropathy (damage to the nerves in the arms and legs)

## How and when is daratumumab given?

Daratumumab is given as an infusion (drip) into a vein at a hospital outpatient department or clinic, under the supervision of a doctor who specialises in the treatment of cancer. The starting dose is 16 mg per kg body weight. The subcutaneous formulation of daratumumab is currently approved in Europe for the same indications as the intravenous formulation. Daratumumab subcutaneous is administered as a fixed dose, which significantly reduces treatment time, from hours to approximately three to five minutes, when compared to daratumumab intravenous (IV) formulation.

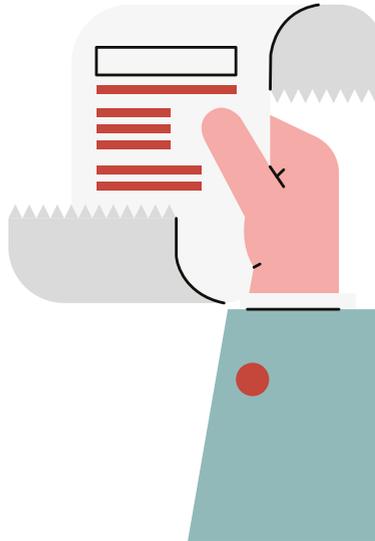
The dosing schedule for daratumumab subcutaneous infusion is:

- 1.** In combination with lenalidomide and monotherapy: daratumumab is given once a week for the first eight weeks, then once every two weeks from week 9 to 24, and then every four weeks onwards until disease progression.
- 2.** In combination with bortezomib, melphalan and prednisone : daratumumab is given once a week for the first six weeks, then once every three weeks from week 7 to 54, and then every four weeks onwards until disease progression.
- 3.** In combination with bortezomib, thalidomide and dexamethasone:
  - a.** Induction therapy: daratumumab is given once a week for the first eight weeks, then every two weeks from week 9 to 16.
  - b.** Consolidation therapy: daratumumab is given every two weeks for the first eight weeks
- 4.** In combination with bortezomib: daratumumab is given weekly for the first nine weeks, then every three weeks from week 10 to 24, and then every four weeks onwards until disease progression.



## References

1. European Medicines Agency. Darzalex (daratumumab) European public assessment report (EPAR): [https://www.ema.europa.eu/en/documents/overview/darzalex-epar-medicine-overview\\_en.pdf](https://www.ema.europa.eu/en/documents/overview/darzalex-epar-medicine-overview_en.pdf). Last updated 01/2020.
2. Manufacturer's product information <https://www.darzalex.com/>
3. Loniel, S. et al, Daratumumab monotherapy in patients with treatment-refractory multiple myeloma (SIRIUS): an open-label, randomised, phase 2 trial. *Lancet* 2016; 387: 1551–60
4. Lokhorst HM et al. Targeting CD38 with daratumumab monotherapy in multiple myeloma. *N Engl J Med* 2015; 373:1207-1219
5. Dimopoulos MA et al. Daratumumab, lenalidomide, and dexamethasone for multiple myeloma (Pollux trial). *N Engl J Med* 2016: 375:1319-1331.
6. Palumbo, A et al. Daratumumab, bortezomib, and dexamethasone for multiple myeloma (CASTOR trial). *N Engl J Med* 2016; 375:754-766
7. Rajkumar, SV. Daratumumab in multiple myeloma. *Lancet* S0140-6736(15)01226-X
8. Rajkumar, SV and Kumar, S. Multiple Myeloma: diagnosis and treatment. *Mayo Clin Proc* 2016;91(1):101-119
9. Moreau P. et al. Phase 3 randomised study of daratumumab + bortezomib/thalidomide/dexamethasone (D-VTd) vs VTd in transplant-eligible newly diagnosed multiple myeloma: CASSIOPEIA Part 1 results. Abstract #8003. American Society of Clinical Oncology meeting 2019, Chicago, US. 2019 Jun 02.





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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.



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