

Steroids

What are steroids?

Steroids are hormonal substances naturally produced in the body. There are many different types of steroids, those used in the treatment of myeloma are known as glucocorticoids. These steroids can suppress inflammation and the immune response.

The two most commonly used steroids in myeloma are dexamethasone and prednisolone.

How are steroids used in myeloma?

Steroids are known to be effective in killing myeloma cells and can therefore be used on their own as treatment, e.g. high-dose dexamethasone. This may be used in patients for whom chemotherapy is not recommended and can be useful as an initial treatment for patients who have poor kidney function at diagnosis. Their ability to control disease activity without damaging normal bone marrow stem cell function is of great value in such situations.

More commonly, steroids are used to increase the response rate to chemotherapy or thalidomide treatment. Examples of this are melphalan and prednisolone (MP), vincristine, adriamycin (also known as doxorubicin) and dexamethasone (VAD) and cyclophosphamide, thalidomide and dexamethasone (CTD). Steroids may also be used to treat and control relapsed myeloma, and as a form of maintenance treatment to sustain response to treatments.

For further information about treatment options and disease management see Myeloma UK's *Myeloma – Your Essential Guide*.

How are steroids given?

Steroids can be given either in tablet form or intravenously (into a vein). Tablets should be taken with food or milk to help protect the lining of the stomach from irritation. As the doses used in myeloma are often high, several tablets may need to be taken at once.

Steroid treatment in myeloma is typically given in high doses but for short periods only.

What are the possible side-effects?

Side-effects of steroids do vary according to the dose and everyone's reaction to steroids may be different. It is important to remember that each person's reaction to steroids may be different and that side-effects, if any, are temporary and should resolve when the steroids are stopped.

Common side-effects include:

- **Stomach pain**

Steroids can damage or irritate the lining of the stomach and can sometimes cause stomach ulcers. You may be given medication to prevent stomach problems. If you experience any stomach pain or vomit blood you must inform your doctor immediately.

- **Increased blood sugar**

Steroids may increase the levels of sugar in the blood temporarily. This is important for those who are diabetic and taking medication for this, and may require more frequent monitoring.

- **Increased risk of infection**

Steroids can suppress the immune system, particularly if given in high doses or long term. It is important to report any signs of infection such as a high temperature, productive cough or any area of swelling or inflammation.

- **Increased appetite**

Steroid treatment can make people feel hungrier and want to eat more. It is therefore possible to put on weight during steroid treatment. If this is a particular problem it might be worth asking to see a dietician at the hospital.

- **Mood changes**

Mood swings, anxiety, tearfulness, irritability and perhaps some difficulty in sleeping because of a feeling of hyperactivity can occur when on steroid treatment. This can be more apparent when taking the high doses used in myeloma, and alternating between periods on and off steroids. Informing family members of such side-effects can help them to understand why a person's behaviour may be changed whilst they are on steroids. If steroid tablets are taken in the morning it may help with any sleep problems.

- **Muscle wasting and muscle weakness**

Can be a problem for some people, particularly towards the end of the treatment regime. Muscle cramps can occur for a short time after stopping steroids. Any side-effects or unusual symptoms should be reported to the doctor or nurse. It is best not to stop taking steroids suddenly and without advice from your doctor as withdrawal effects can occur which may be associated with a drop in blood pressure, fever, weight loss, itchy eyes or skin, nausea or depression.

The future

Steroids have proved to be very effective in the management of myeloma, either on their own or in combination with other chemotherapy drugs. As steroids can often increase the response rate of treatments, they are also proving useful in combination with the newer treatments for myeloma, such as thalidomide, VELCADE® (bortezomib), REVLIMID® (lenalidomide) and arsenic trioxide (Trisenox).

About this Infosheet

The information in this Infosheet is not meant to replace the advice of your medical team. They are the people to ask if you have questions about your individual situation. All Myeloma UK's publications are extensively reviewed by patients and healthcare professionals prior to publication.

Other information available from Myeloma UK

Myeloma UK has a range of Essential Guides, Infoguides and Infosheets available, covering many areas of myeloma, its treatment and management. To order your free copies, contact the **Myeloma Infoline** on **0800 980 3332**. This information is also available 24/7 on our website at www.myeloma.org.uk.

If you would like to talk to someone about any aspect of myeloma, its treatment and management, call the **Myeloma Infoline** on **0800 980 3332**. Your call will be answered by Myeloma Nurse Specialists who are supported by medical and scientific advisors. The Myeloma Infoline is open from Monday to Friday, 9am to 5pm, and is free to phone from anywhere in the UK. From outside the UK, call +44 131 557 3332 (charged at normal rate).

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