MyelomaUK

Bortezomib (Velcade®)

AL amyloidosis Treatment Guide

What is bortezomib?

Bortezomib, also known as Velcade®, is a proteasome inhibitor used in the treatment of AL amyloidosis.

How does it work?

Bortezomib works by blocking the actions of proteasomes. Proteasomes are found in all cells of the body and help to break down damaged and unwanted proteins. This is shown in Figure 1.

Bortezomib blocks the proteasomes, stopping them from breaking down the damaged proteins. This causes proteins to build up to toxic levels, killing the AL amyloidosis cell. This is shown in figure 2.

The abnormal plasma cells in AL amyloidosis rely heavily on proteasomes, as they produce more proteins than normal healthy cells. They are therefore more sensitive to bortezomib.

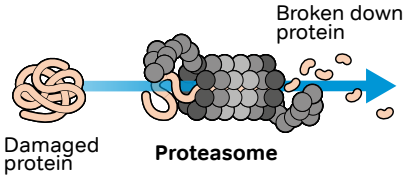

Figure 1. Proteasome breaking down damaged proteins

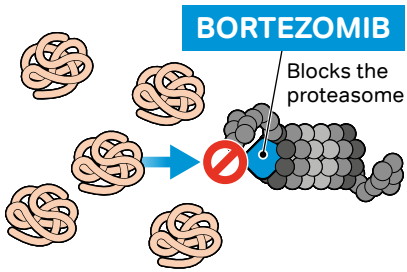

Figure 2. Bortezomib blocking the proteasome, causing damaged proteins to build up in the abnormal plasma cell

How is bortezomib given?

Bortezomib is usually given as an injection under the skin (subcutaneous), but it can also be given into the vein (intravenously).

Bortezomib is normally given in combination with other AL amyloidosis treatments.

Individual treatment plans vary. Your healthcare team will discuss your specific plan.

Possible side effects

Bortezomib has a number of possible side effects which can vary from patient to patient. You will experience some side effects, but it is unlikely that you will experience all of them. Most side effects will ease once your treatment has finished. Always report any side effects to your healthcare team as soon as possible so they can be treated quickly.

The side effects listed here are those experienced most often. For a complete list of side effects please refer to the patient information leaflet which is included with the treatment. If you do not have this, ask your healthcare team for it.

Myeloma UK provides a wide range of information booklets about side effects and their management. Relevant booklets are signposted beneath each side effect on the following pages.

You can find these along with all of our information booklets online at **myeloma.org.uk/library**.

You can also find out more about the management of these side effects by asking your healthcare team or by contacting Myeloma UK.

0800 980 3332 **AskTheNurse@myeloma.org.uk**

myeloma.org.uk

Peripheral neuropathy

Bortezomib can cause damage to nerves in the hands, feet, arms, or legs. This is called peripheral neuropathy. This causes numbness, tingling, and pain, often in the hands or feet. These sensations can be eased with gentle massage, using hot or cold packs, and nerve painkillers such as gabapentin and pregabalin. Symptoms generally improve or disappear after the dose of bortezomib is reduced or stopped.

For more information see the **Peripheral neuropathy (AL amyloidosis) Infosheet** from Myeloma UK.

Blood pressure changes

Bortezomib can cause both high and low blood pressure. Low blood pressure may cause you to feel faint or dizzy when you stand. High blood pressure may cause blurred vision, headaches, and dizziness. Speak to your healthcare team if you experience any of these symptoms.

Call 999 if you experience any chest pain or tightness.

Fatigue

Fatigue is a feeling of extreme tiredness that is not relieved by sleep. It usually resolves after treatment has finished. Your treatment, any side effects, and your mental health can all impact fatigue. Treating any medical causes such as anaemia can help to manage fatigue. Allowing time for rest, regular gentle exercise, and complementary therapies such as massage may also help.

Anaemia and bleeding

Bortezomib can decrease the number of red blood cells, causing anaemia. Symptoms include: looking pale, shortness of breath, and fatigue. Bortezomib can also decrease the number of platelets, increasing your risk of bleeding or bruising. Treatment for these side effects can ease symptoms and boost your blood cell counts.

> For more information on fatigue, anaemia, and bleeding see the **AL amyloidosis: Your Essential Guide** from Myeloma UK.

Muscle spasms

You may experience muscle cramps or spasms. Some patients find that keeping well hydrated and stretching can help to control the cramps. You may also be prescribed treatment to help with muscle cramps.

Skin rash

Bortezomib can cause a skin rash which may be itchy and need treatment with steroid creams or antihistamines. Some rashes need urgent treatment, including rashes with swelling of the eyes or mouth, or any problems breathing, rashes that start in one area but begin to spread widely, and rashes with high temperatures.

Risk of infection

Bortezomib may affect your immune system, increasing your risk of infection. Common signs include: high or low temperature (37.5°C or above, or below 36°C), feeling shivery or cold, peeing (passing urine) more often or pain when peeing, and cough or cold symptoms.

Infections can become serious if not treated quickly. Contact your healthcare or out of hours service immediately if you think you have an infection.

For more information on infection see the Coping with symptoms and side effects chapter of the **AL amyloidosis: Your Essential Guide** from Myeloma UK.

Gut problems

Bortezomib can cause diarrhoea or constipation. Unless you have been advised otherwise, drinking at least 2 litres (3 to 4 pints) a day and having a balanced diet can help to ease these symptoms. You may also be prescribed laxatives to help you go to the toilet or medicine to reduce the diarrhoea.

Bortezomib may also cause nausea or vomiting. You may be given anti-sickness (anti-emetic) medicine to prevent or reduce nausea and vomiting. You must take them as prescribed rather than waiting until you feel sick. There are several types of anti-sickness medicines and if the one you have is not effective, ask to try another.

For more information on gut problems see the **Diarrhoea (AL amyloidosis) Infosheet** and the **Constipation (AL amyloidosis) Infosheet** from Myeloma UK.

Important information about bortezomib

You must not take bortezomib during pregnancy as it is not known if it is safe for the baby. You will have to follow a strict pregnancy prevention programme. You must use effective contraception during treatment, and for 3 months after treatment has finished, if you or your partner could become pregnant.

You should not breastfeed when taking bortezomib as it is not known if it could pass to the milk.

You should not have high doses of vitamin C, drink green tea, or take green tea supplements while having bortezomib. Green tea and high dose vitamin C can potentially interfere with the way bortezomib works.

Alcohol should be strictly limited while on bortezomib treatment. It can make side effects such as dizziness and fatigue worse.

Supplements or herbal medicines that have not been prescribed by your haematologist may cause harm when taken alongside your prescribed treatment.

You must speak to your healthcare team before taking any kind of supplement or alternative treatment, including herbal, traditional or natural medicines and remedies, and vitamins or wellbeing supplements, to ensure it is safe to do so.

If you have any questions about your treatment, speak to your healthcare team. They are the best people to ask if you have questions about your individual situation. The information in this publication is not meant to replace their advice.

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MyelomaUK

We're here for everything a diagnosis of AL amyloidosis brings

Get in touch to find out more about how we can support you

Call the Myeloma UK Infoline on
0800 980 3332

Email Ask the Nurse at
AskTheNurse@myeloma.org.uk

Visit our website at
myeloma.org.uk

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Please fill in a short online survey about our patient information at **myeloma.org.uk/pifeedback** or email any comments to **patientinfo@myeloma.org.uk**

For a list of references used to develop our resources, visit **myeloma.org.uk/references**