

---

# Administration of Subcutaneous Bortezomib

---

## Pharmacy

## Patient Information





## Introduction

This booklet gives you some simple instructions and information about injecting at home.

It is intended for you to keep as a useful reminder.

A nurse will have either shown you how to give yourself a subcutaneous (under the skin) injection or will have talked the process through with you, and offered a phone consultation for when you first administer your own injection; your clinical team will confirm which applies to you.

**Please note:**

**The information in this guide is not intended to replace the advice of your nurse or doctor.**

**If you have any questions or are unsure about how to inject bortezomib, your clinical team will be able to help.**

## Supply of bortezomib syringes

Bortezomib syringes will be stored in a sealed plastic bag supplied from the pharmacy aseptic unit. You may receive multiple syringes, but only **one** syringe is required per dose.

You will either receive your supply of bortezomib directly from the day unit or this will be couriered to your home address.

### **If you are collecting from the Day Unit:**

In order to take the bortezomib syringes home safely you must bring a plastic container to the hospital, for example Tupperware and a cool box or insulated container with you. The nursing team will discuss this with you in advance.

When storing or transporting your bortezomib syringes you **must not:**

- Expose the syringes or their plastic container to direct sunlight
- Leave the syringes in a parked car where the temperature may rise significantly for an extended period
- Expose syringes to hot air blowers in cars
- Place syringes in direct contact with heaters
- Freeze the syringes, or put on ice or next to frozen cool blocks.

**Supplies should be placed in the fridge as soon as possible.**

## Storage of bortezomib at your home

The bortezomib syringes should be stored within a sealed plastic container such as Tupperware, in the sealed bag supplied by The Royal Marsden. The container should be stored inside your domestic refrigerator but not placed directly up against the sides, back or on the bottom of the fridge.

The syringes should be stored out of reach of children and pets.

## Equipment required

You or your carer will be supplied with all the equipment required for administering bortezomib safely at home.

If you require further supplies of equipment please contact the day treatment unit or your Clinical Nurse Specialist (CNS or key worker).

### **You will be provided with:**

- Prefilled syringe(s) containing bortezomib.

### **And the following equipment (this may be sent separately):**

- Sterile alcohol wipes
- Needles to administer
- Gauze swabs
- Gloves and apron (for use only if a carer is administering the injection(s))
- A cytotoxic disposal container

(This will be a cytotoxic sharps bin with a purple lid or clearly marked as 'cytotoxic'). The bin should not be overfilled, the lid must be closed when the bin is full and you or your carer can return the full containers to the hospital outpatient unit when next on site. Some councils offer clinical waste collection however this does not always include cytotoxic waste; please check with you local council, see: [www.gov.uk/request-clinical-waste-collection](http://www.gov.uk/request-clinical-waste-collection)

- Cytotoxic spillage kit

Bortezomib syringes contain small volumes of liquid so the risk of spillage is reduced. Instructions on how to use the spill kit are provided on page 5.

### **Cytotoxic spillage kit contents:**

- Overshoes
- Clinical waste bag
- Two pairs of Nitrile gloves
- Facemask with plastic visor
- Disposable gown
- Plastic apron
- Paper towels.

### **Safety and handling requirements**

Bortezomib is a cytotoxic medicine; it must not be handled by women of childbearing potential, who are trying for a baby, are pregnant or breastfeeding.

It is safe to handle the bortezomib syringes in the plastic bags.

Only people who are trained to handle the bortezomib syringe should handle it once it is out of the bag.

Always keep the bortezomib syringes out of sight and reach of children and pets.

If your carer obtains a needle stick injury (where the needle has pierced or scratched the skin), the area should be thoroughly washed with water, and they should contact the day treatment unit for further advice immediately.

Remember to keep the spillage information and kit at hand in case you need it.

In the event of a spillage, follow the procedure outlined on page 5.

## Procedures to follow in the event of a spillage

1. If the spillage has occurred in a general area, clear the area and restrict access to the spillage site as far as possible.
2. Open the spillage kit and put on the disposable gown, facemask with visor, and both pairs of gloves. If the spillage is on the floor, put on overshoes.
3. Mop up the spill using a paper towel starting at the outside edge of the spill and working towards the middle.
4. When the spill has been removed, wash and dry the area at least twice using clean water and paper towels.
5. Put all the waste including the gloves, mask and gown into the plastic clinical waste bag. Seal the bag and place in the cytotoxic sharps bin.
6. If the spill was on the floor, this should be cleaned with hot soapy water as soon as possible.
7. Inform the haematology unit that the spillage kit has been used so that they can make arrangements for supply of a new kit.

## Procedures to follow in the event of a cytotoxic spill onto skin or mucous membranes

In the event of receiving a splash from a cytotoxic spillage, the following procedures should be taken immediately:

1. Wash the area thoroughly with soapy water as soon as possible. For large spillages/splashes, remove any contaminated clothing, shower and put on a clean set of clothes.
2. In the event of a cytotoxic splash to the eye, irrigate thoroughly with normal saline for approximately 20 minutes. Where saline is not available, tap water should be used.
3. Immediately report the incident to The Royal Marsden Macmillan Hotline: 020 8915 6899.

## Administering your subcutaneous bortezomib injection/syringe

### Choose your area

- You should select an area where you will not be distracted
- Choose a comfortable chair that has a table nearby
- Ensure the work surface is clean and that there are no food products within reach
- Only people who are helping you, such as your carer should be in the room; this is to avoid distractions and inadvertent exposure.

### Prepare your area

- Wash and dry your hands thoroughly and clean your preparation area
- Collect all the equipment required and place onto your cleaned area – you will only require **one** bortezomib syringe per dose
- Make sure your spillage kit and instructions are close to hand, in case you need them
- Move to your chosen chair where you will sit and administer the injection.

### Administering the bortezomib injection/syringe

Your clinical team will have discussed with you and/or your carer how to prepare the equipment you need to inject yourself and how to give the injection.

However, there is a step-by-step guide (pages 8–10) to remind you of how to administer your injection. There is also a short film on administering subcutaneous injections on The Royal Marsden website: [www.royalmarsden.nhs.uk/how-to-self-inject](http://www.royalmarsden.nhs.uk/how-to-self-inject)

If you are still unsure then please contact your team. If outside of hospital hours, please contact The Royal Marsden Macmillan Hotline: 020 8915 6899.



If your carer is administering the bortezomib they need to wear the gloves and apron.

**After administering the bortezomib injection**

Do not put any of the used items in with your normal household waste. Discard the syringe, packaging, gloves and apron (if used) into the cytotoxic disposal container. This container must be stored out of sight and reach of children and pets.

# Step-by-step instructions for administering subcutaneous chemotherapy injections



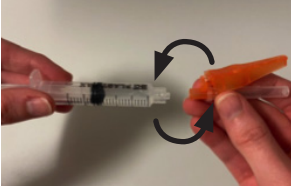
**Step 1:** Wash your hands thoroughly with soap and water. Open the gauze swabs and uncover the injection site chosen.



**Step 2:** Open the packaging containing the syringe. Grab the syringe in the middle of the barrel and remove from the packaging.



**Step 3:** Check the syringe and make sure it is not cracked and the solution appears clear with no particles in it. Remove the protective cap.



**Step 4:** Attach the needle to the top of the syringe and twist into place. Place on your work surface.



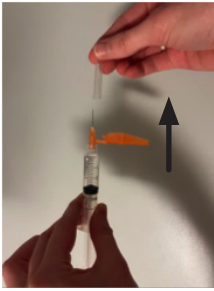
**Step 5:** Using a fresh sterile alcohol swab, clean the injection site. Allow the site to air dry.



**Step 6:** Pick up the syringe. Pull the safety cover on the needle out of the way to prepare for injecting.

**See page 9 for the next step**

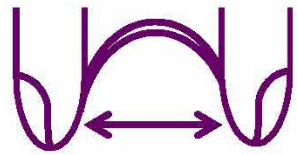
There is also a short film demonstration on: [www.royalmarsden.nhs.uk/how-to-self-inject](http://www.royalmarsden.nhs.uk/how-to-self-inject)



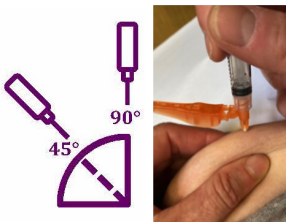
**Step 7:** Remove the clear needle cover from the needle, pulling away from your body.



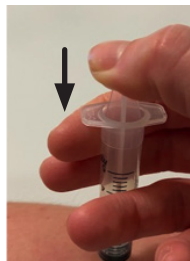
**Step 8:** Hold the syringe between your thumb and forefinger of your dominant hand, as if holding a dart.



**Step 9:** With your free hand, pinch the skin where you are going to inject – check how much skin you can pinch – is it nearer 1" (2.5cm) or 2" (5cm)?



**Step 10:** Insert the needle into the skin at a 45° angle for 1", or 90° for 2", then release the pinched skin.



**Step 11:** If needed, use one hand to support the syringe and the other hand to push the plunger down slowly until all the drug has gone in.



**Step 12:** Hold it there for at least 10 seconds to ensure all the drug has been administered.

[See page 10 for the next step](#)



**Step 13:** Once you have waited at least 10 seconds and the syringe is empty, withdraw the needle from your skin and apply gentle pressure on the injection site.



**Step 14:** Use a gauze swab to clean away any leakage. Do not massage the area.



**Step 15:** On a hard surface, push the needle into the safety cover.



**Step 16:** Place the used syringe and needle into the special sharps container.



**Step 17:** Dispose of any remaining empty packets into the sharps container, but keep unused gauze swabs for future use.



**Step 18:** Wash your hands thoroughly with soap and water.

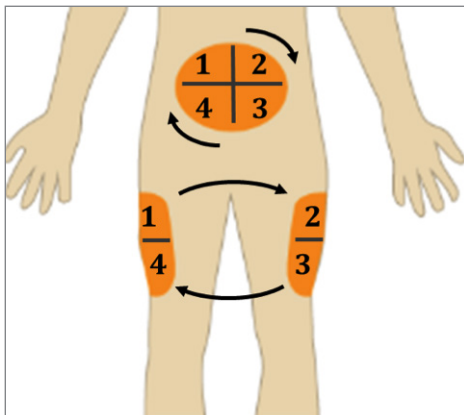
There is also a short film demonstration on: [www.royalmarsden.nhs.uk/how-to-self-inject](http://www.royalmarsden.nhs.uk/how-to-self-inject)

## Adverse effects to bortezomib

Your doctor, specialist nurse or pharmacist will be able to advise on the common side effects of treatment.

Any raised temperatures above 38°C must be reported to The Royal Marsden Macmillan Hotline immediately. See page 15 for contact details.

Whilst on treatment you will be asked to monitor symptoms of **peripheral neuropathy**. Peripheral neuropathy may include numbness, tingling, weakness, pins and needles or painful hands or feet. You may find it hard to fasten buttons or do other fiddly tasks. A questionnaire on page 14 should be used to monitor symptoms of peripheral neuropathy. If there is any change to your symptoms, please contact your specialist nurse before your next dose.



## Rotating your injection site

Injecting into the same area too many times can cause fatty lumps to appear on the surface of your skin; making injections more difficult and painful. This is known as lipohypertrophy.

To avoid this from developing, make sure you pick a different area of skin to put each injection into.

You can administer your bortezomib injection into your abdomen (tummy) and your outer thigh.

Ideally you should aim to keep each new injection spot at least an inch away from your previous injection sites.

To the right is a diagram showing how to rotate your injection sites between the different areas of your body.

## Do's and Do not's

### Do's:

**Do** alternate the location in which you inject.

**Do** make sure you put your used syringes in the sharps bin each time you inject – never leave them lying around.

**Do** administer the injection at the same time each day.

**Do** contact your CNS or your day unit (see page 15) if you are unsure on how to inject or would like more information.

### Do not's:

**Do not** put the syringe down anywhere or touch the needle with anything before injecting.

**Do not** inject into bruised or scarred/damaged skin.

**Do not** rub the skin after you have injected.

**Do not** share or let anyone else use your syringes.

**Do not** dispose of any equipment in general household waste.

**Do not** overfill the sharps bin – the lid must be closed when the bin is full and you or your carer must either return the container to the hospital at your next visit, or contact your local council to arrange collection.

## Troubleshooting

| Scenario  | Action required  |
|---|--|
| What if you realise that your medication has been left out of the fridge? | Bortezomib may be stored at room temperature (up to 25°C) for up to 8 hours in the original container. Once removed from the refrigerator, bortezomib must be used within this 8 hour period. Please contact the day unit for advice if more than one syringe has been left out. |
| What if the container for the drugs is damaged?                           | Contact your nursing team.   |
| What if you experience side effects to the treatment?                     | If you have any concerns not addressed in this leaflet, please contact either the day unit or The Royal Marsden Macmillan Hotline: 020 8915 6899 (available 24 hours a day, 7 days a week).  |
| What if you lose/break a syringe or the contents is cloudy?               | Please use another one if you have been provided with more than one dose, and then contact the nursing team within opening hours. If you do not have another dose, please also contact the team as above.  |
| How do you manage a spill of bortezomib?                                  | Please ensure you have the spill kit to hand when handling your medication. Follow the instructions on page 5 of this leaflet. Please contact the day unit if you have any queries.  |

# Peripheral neuropathy questionnaire

|  | Not at all | A little bit | Some-what | Quite a bit | Very Much |
|--|------------|--------------|-----------|-------------|-----------|
| I have numbness or tingling in my hands                                    | 0          | 1            | 2         | 3           | 4         |
| I have numbness or tingling in my feet                                     | 0          | 1            | 2         | 3           | 4         |
| I have joint pain or muscle cramps   | 0          | 1            | 2         | 3           | 4         |
| I feel weak all over   | 0          | 1            | 2         | 3           | 4         |
| I have trouble hearing   | 0          | 1            | 2         | 3           | 4         |
| I get a ringing or buzzing in my ears                                      | 0          | 1            | 2         | 3           | 4         |
| I have trouble fastening buttons   | 0          | 1            | 2         | 3           | 4         |
| I have trouble feeling the shape of small objects when they are in my hand | 0          | 1            | 2         | 3           | 4         |
| I have trouble walking   | 0          | 1            | 2         | 3           | 4         |

Record your scores below. Notify your team of any changes in score.

| Week   |  |  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|--|
| I have numbness or tingling in my hands                                    |  |  |  |  |  |  |  |  |  |  |
| I have numbness or tingling in my feet                                     |  |  |  |  |  |  |  |  |  |  |
| I have joint pain or muscle cramps   |  |  |  |  |  |  |  |  |  |  |
| I feel weak all over   |  |  |  |  |  |  |  |  |  |  |
| I have trouble hearing   |  |  |  |  |  |  |  |  |  |  |
| I get a ringing or buzzing in my ears                                      |  |  |  |  |  |  |  |  |  |  |
| I have trouble fastening buttons   |  |  |  |  |  |  |  |  |  |  |
| I have trouble feeling the shape of small objects when they are in my hand |  |  |  |  |  |  |  |  |  |  |
| I have trouble walking   |  |  |  |  |  |  |  |  |  |  |



## Contact details

For general enquiries about self-administration or equipment issues, please contact one of the units below:

### **Bud Flanagan Ambulatory Care Unit**

Tel: 020 8915 6121 or 020 8915 6120

(Monday to Friday, 8am – 6pm)

### **Private Patient Medical Day Unit**

Sutton 020 8915 6670

Chelsea 020 7811 8092

(Monday to Friday, 8.30am – 7pm)

Alternatively, please call:

### **The Royal Marsden Macmillan Hotline: 020 8915 6899**

You can ring the hotline 24 hours a day, 7 days a week.

Call us straight away if you are feeling unwell or are worried about the side effects of cancer treatments.

This service provides specialist advice and support to all Royal Marsden patients, as well as to their carers, and both hospital and community-based doctors and nurses caring for Royal Marsden patients.



## References

This booklet is evidence based wherever the appropriate evidence is available, and represents an accumulation of expert opinion and professional interpretation.

Details of the references used in writing this booklet are available on request from:

The Royal Marsden Help Centre

Freephone: 0800 783 7176

Email: [patientcentre@rmh.nhs.uk](mailto:patientcentre@rmh.nhs.uk)

No conflicts of interest were declared in the production of this booklet.

Should you require information in an alternative format, please contact The Royal Marsden Help Centre.

The patient information service is generously supported by The Royal Marsden Charity.

[royalmarsden.org](http://royalmarsden.org)

Registered Charity No.1095197



© The Royal Marsden NHS Foundation Trust  
Published and printed May 2020. Planned review May 2023  
PH-1756-02



Radiotherapy and  
Chemotherapy Services  
F538021 & F538022

