

# Your guide to self-administration of Denosumab by subcutaneous injection

Resource developed by:  
South East London Cancer Alliance  
Guy's and St Thomas' NHS Foundation Trust  
King's College Hospital NHS Foundation Trust  
Lewisham and Greenwich NHS Trust

## Introduction

This booklet provides useful instructions and information for patients about injecting denosumab at home.

### **Please note:**

The information in this leaflet is to help with administering your medication at home and is not intended to replace the advice of your nurse or doctor. A nurse will already have shown you how to give yourself a subcutaneous (under the skin) injection, and they will have assessed that you are both able and comfortable to do so. A nurse will call you for a phone consultation on the day of administration to check that you have successfully administered your injection.

If you have any questions that are not covered in this leaflet, or if you are unsure about how to inject denosumab, please contact your clinical team in the hospital who will be able to support and help you.

## Supply of denosumab

Denosumab will be supplied to you in a vial (which you will have already been shown how to draw up into a syringe for injection). You will either be told to collect your denosumab vials and equipment from the chemotherapy day unit, or your medications will be delivered to you by a courier service.

## If you are collecting denosumab from the chemotherapy day unit

Please bring a suitable plastic container (i.e. Tupperware) with you upon collecting your medication so the vials are protected from damage.

When transporting denosumab home, please help reduce the effects of changes in temperature by:

- Not exposing the vials or container to direct sunlight
- Not leaving vials/containers in a parked car where the temperature may rise significantly for an extended period
- Not exposing the vials/containers to hot air blowers in cars/transport
- Not placing vials/containers in direct contact with heaters

Denosumab requires refrigeration so supplies of denosumab should be placed in your refrigerator as soon as you return home.

## Storage at Home

Denosumab vials should be kept in the sealed bag supplied by the pharmacy team (and should stay in your plastic container if you transported your medication home). Vials should be stored inside their original packaging (i.e. the original cardboard packaging supplied by the manufacturer) in your refrigerator, but not placed directly up against the sides, back or on the bottom of the fridge to avoid the risk of freezing.

Denosumab vials should always be placed out of reach of children and pets.

If any of the vials have expired or been damaged, please contact an appropriate healthcare professional on the chemotherapy day unit as soon as possible to arrange a replacement dose. Any unused denosumab syringes or vials should be returned to the hospital, in a suitable plastic container, for safe disposal at your next appointment (please pass the medication to a nurse in either the chemotherapy day unit or clinic who will arrange this for you). If equipment is provided to you to bring your denosumab vials home (cool box ice packs etc), then these must be brought back to hospital at your next visit.

In the event that your refrigerator is not functioning properly or where vials have been left out of the fridge, denosumab (if kept in its original packaging) can still be used if the temperature excursion has not exceeded 30 days and if was stored between 8 °C and 30°C. If denosumab has been out of the refrigerator for longer than 30 days and outside of those temperature limits, then please contact your clinical team in the hospital for advice.

## Equipment Required

All the equipment required for administering denosumab at home will be supplied to you by the hospital. If you require further supplies of equipment, please contact a nurse in the chemotherapy day unit. Equipment supplied will include:

- **Vial(s) containing 120mg denosumab for your treatment**
- **Syringes for administration**
- **Needles (Orange safety needles and red needles)**
- **Alcohol and gauze swabs**
- **Gloves**
- **Apron (only required if administration by a carer)**
- **Sharp bin** - this is a purple lid cytotoxic sharps disposal bin. The bin should not be over-filled, the lid must be closed when full and you must return it to the hospital when it is full or at the end of your treatment, whichever happens first.

## Safety and handling requirements

- Denosumab should not be handled by women who are either trying for a baby, are already pregnant or who are breastfeeding.
- Only people who are trained to handle denosumab vials should handle them when they are out of the bag/box.
- Denosumab vial(s) should always be kept out of 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 unit for further advice.

In the event of a spillage follow this procedure:

#### **PROCEDURES TO FOLLOW IN THE EVENT OF A SPILLAGE**

1. Put on two pairs of disposable gloves
2. Soak up the spill using kitchen towel for small spills by working from the outside of the spill inwards, placing the absorbent towel gently over the spill to avoid splashing
3. Place the kitchen towel and any sharp material into a bag and then into the cytotoxic sharps bin
4. Take off the top pair of gloves and clean the floor or work surface with warm soapy water (i.e. washing up liquid) and kitchen towel
5. After cleaning put the kitchen towel and gloves into a bag and then into the cytotoxic sharps bin
6. Wash hands thoroughly
7. Contact the Nurse in Charge (NiC) on the chemotherapy day unit to inform them of the spillage and to arrange replacement medication if required

#### **PROCEDURES TO FOLLOW IN THE EVENT OF A CYTOTOXIC SPILL ONTO SKIN OR MUCOUS MEMBRANES\***

(\* For example, at the nostrils, mouth, lips, eyelids or ears)

In the event of accidental contact with cytotoxic medication, the following procedures should be adopted immediately:

1. Wash the area thoroughly with soapy water as soon as possible. For large spillages/splashes, remove contaminated clothing (and wash separately from other clothes), shower and put on a clean set of clothes
2. In the event of a cytotoxic splash to the eye, irrigate thoroughly with tap water for approximately 20 minutes
3. Immediately report the incident to your clinical nurse specialist or the nurse in charge at the chemotherapy day unit

## Preparing and administering your subcutaneous denosumab injection

A nurse in the chemotherapy day unit will have shown you how to give yourself a subcutaneous (under the skin) injection. We have also prepared a short video on how to administer subcutaneous injections which you may find helpful to refer to whilst you get used to self-administering: <https://info.guyscanceracademy.co.uk/giving-yourself-an-injection/>

### How to prepare and administer denosumab

1. Remove the denosumab vial from the fridge and allow to come to room temperature before injecting to reduce discomfort of injection, usually this takes 15-30 minutes
2. Check the details on the label of the medication to ensure it has your name on it.
3. Check the vial contents are clear and not discoloured and the volume matches the label
4. Check the vial contents has not passed the expiry date
5. Gather all your equipment and place on a clean surface
6. Wash your hands thoroughly and dry them.
7. Remove and open the packets containing the syringe and the gauze swabs.
8. Open the red needle and twist the red needle onto the syringe taking care not to touch the hub of the syringe (the top of the syringe)
9. Remove the protective cap from the denosumab vial and clean the rubber stopper with an alcohol wipe. Let this air dry before attempting to draw up the denosumab
10. Remove the cap that covers the red needle and pierce the rubber stopper on the vial
11. Turn the vial upside down. Slowly pull back the plunger, so that the full contents of the vial is drawn up.
12. Remove the needle and syringe from the vial. Place the vial straight into the sharps bin. Unscrew the red needle and put it into the sharps bin.
13. Twist the orange needle onto the syringe and take care not to touch the end of the syringe
14. If there are any air bubbles in the syringe, gently tap the side of the syringe with your finger, the bubbles should rise to the top. Very gently push the air out of the syringe. If any liquid is pushed out during this process, follow the Cytotoxic Spillage Procedure in this leaflet.
15. Remove appropriate clothing to expose the area you will be using for the injection (e.g. your abdomen or thigh, see the diagram below). Remember to alternate between your left and right and abdomen and your right and left thigh (refer to Subcutaneous injection site record sheet).
16. Open an alcohol swab packet and take out the swab
17. If a carer is administering the medication then they should put on an apron and gloves
18. Use the alcohol swab to clean the skin where you are going to inject yourself and allow to dry for 15-30 seconds
19. Take the plastic cover off the needle and hold the syringe between the thumb and forefinger of your dominant hand as if holding a dart.

20. With your free hand gently pinch the skin of the area chosen for injection to elevate the subcutaneous tissue and if you can grasp 2 inches then inject at 90 degrees. If you can only pinch 1 inch then insert the needle at an angle (45 degrees).
21. When the needle is completely inserted, slowly push the plunger down as far as it will go. The entire contents of the vial should be injected.
22. Withdraw the needle and apply gentle pressure on the injection site with a gauze swab. Do not massage the area.
23. Cover the injection site with a plaster if necessary.
24. Do not put the needle back into the needle cover.
25. Put the used needle and syringe into the sharps container. When this is filled to the line on the bin, close the lid and bring it back to hospital at your next visit or contact your local council to arrange collection

## Rotating your injection site

PATIENTS NAME: \_\_\_\_\_ Hospital Number: \_\_\_\_\_

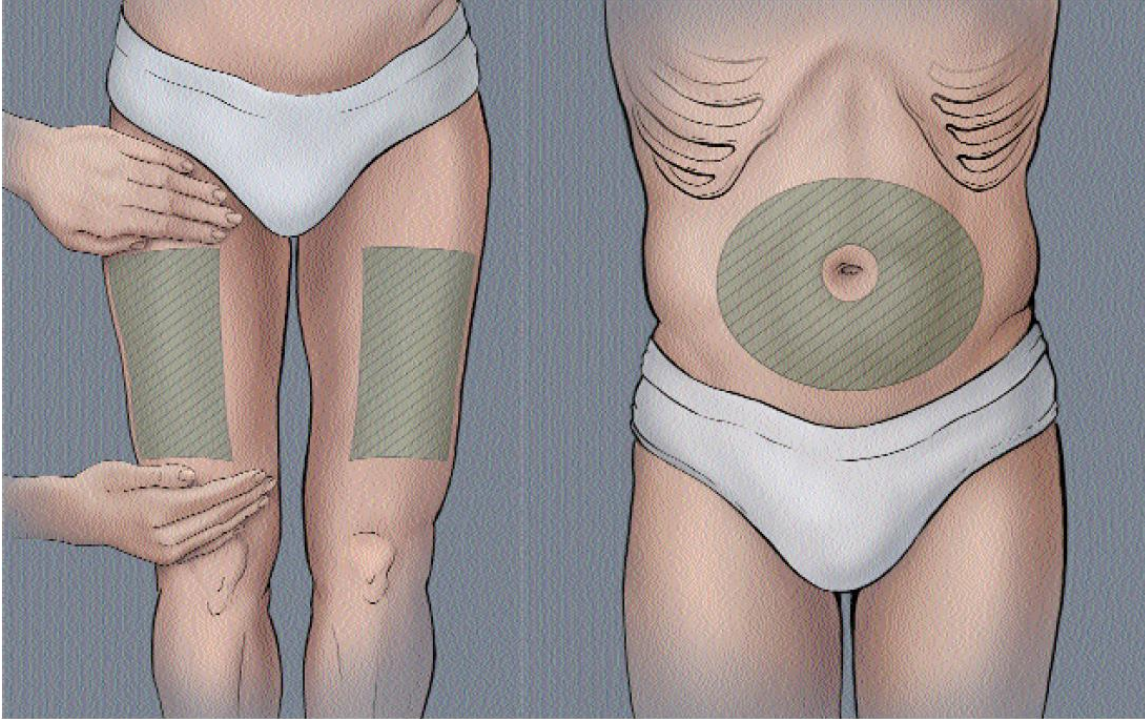
Date of birth: \_\_\_\_\_

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. To avoid this from developing, make sure you pick a different site or area of skin to put each injection into, using your abdomen and thighs as seen in the picture below (e.g. alternating your left and right abdomen and thigh and the area of skin each time).

Cycle no.	Day	Injection Site	Date of administration

### Sites for subcutaneous injection

## Sites for subcutaneous injection



## Adverse effects to denosumab

Your doctor, nurse or pharmacist will advise you on the common side effects of denosumab treatment.

**Any raised temperatures above 38°C must be reported to your clinical team immediately or the relevant out of hours contact details if out of hours** (please refer to the last page of this leaflet for contact information)



## Do's and Don'ts

### Do's

**Do** alternate between the right and left thigh and abdomen for injection

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

**Do** administer the injection at roughly the same time each morning

**Do** ensure to contact your chemotherapy day unit if you are unsure of how to inject or would like further information

**Do** ensure that your medication is stored appropriately in the fridge and out of reach of children and pets

### Don'ts

**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 or medications

**Do not** dispose of any equipment or medication in general household waste

## Frequently asked questions & troubleshooting

**Q. Could someone else at home give me my injection?**

A. Yes, a carer/member of your household can give you your injection if they have been shown how to administer correctly.

**Q. What if I miss a dose of denosumab or forget to administer it?**

A. If you miss a dose for any reason, please contact your clinical nurse specialist or the chemotherapy day unit for urgent advice.

**Q. What if I want to discontinue self-administration at any point?**

A. If at any time you change your mind about self-administration or there are any reasons why self-administration becomes unsafe then you should contact your clinical nurse specialist or the chemotherapy day unit for advice. It will be possible for you to restart having treatment on the appropriate day unit via nurse administration if that is preferable.

Any unused denosumab vials must be returned to the chemotherapy day unit for safe disposal.

**Q. What if I have left my denosumab out of the fridge?**

A. If your denosumab vials have been left out of the fridge for less than 30 days, the denosumab is still okay for use if the temperature excursion was between 8 °C and 30°C. If it is left out of the fridge for more than 30 days or at a temperature outside of the temperature limits, then you should contact the chemotherapy day unit for advice. You can use another vial if you have one.

**Q. What if the container for the denosumab vials is damaged?**

A. Contact your chemotherapy day unit team for advice

**Q. What if I experience side effects to denosumab?**

A. If you have any concerns that are not addressed in this leaflet then please contact your hospital (contact information is on the last page of this leaflet)

## Contact information

For general queries about self-administration or equipment issues, please contact your day unit below:

### Guy's and St Thomas' Hospital Day Unit

Tel: 0207 188 6452 / Email: [HomeMonitoring@gstt.nhs.uk](mailto:HomeMonitoring@gstt.nhs.uk) (Monday to Friday, 9am – 5pm)

Out of hours contact:

**Acute Oncology Services** Tel: 0207 188 3754

### King's College Hospital – Denmark Hill Chemotherapy Day Unit

Tel: 0203 299 9819 (Monday to Friday, 9am – 5pm)

Out of hours contact:

**GSTT Acute Oncology Services** Tel: 0207 188 3754

### Lewisham and Greenwich Hospital Chemotherapy Day Unit

Helpline number if you are unwell or need urgent advice

Tel: 07795612236 (Monday to Friday, 8:30am – 5pm)

Out of hours contact:

**Acute Oncology Services** Tel: 0207 188 3754

### Princess Royal University Hospital Day Unit

Tel: 01689 863 155 (Monday to Friday, 9am – 5pm)

Out of hours contact:

**GSTT Acute Oncology Services** Tel: 0207 188 3754

### Queen Mary's Hospital Day Unit

Please contact Guy's and St Thomas' Hospital Day unit

Tel: 0207 188 6452 / Email: [HomeMonitoring@gstt.nhs.uk](mailto:HomeMonitoring@gstt.nhs.uk) (Monday to Friday, 9am – 5pm)

Out of hours contact:

**Acute Oncology Services** Tel: 0207 188 3754

Should you require information in an alternative format, please contact the relevant chemotherapy day unit via the numbers provided above.