

## **Nurse Guide for Subcutaneous Trastuzumab Administration**

### Summary

- **Trastuzumab Sub-cutaneous injection is given as a flat dose of 600mg/5ml.**
- **No loading dose is required.**
- **Trastuzumab SC should be transferred from the vial to a syringe utilising locally agreed safety guidelines for the administration of subcutaneous medication.**
- **The injection site of SC trastuzumab should be alternated between the left and right thigh. New injections should be given at least 2.5cm from the old site and never into areas where the skin is red, bruised tender or hard.**
- **A fold of skin should be gently pinched with the thumb and forefinger. The needle should be inserted at a 30° angle to achieve uniform placement in the subcutaneous space.**
- **SC Trastuzumab should be administered slowly at a rate that is comfortable for the patient.**
- **All the 5mls volume is given in one site it is not necessary to split the volume into two syringes. Trastuzumab SC has been formulated to allow the administration of the 5mls in one injection site.**
- **Administration should take between 2-5 minutes i.e. give at a rate of 1-2ml/min**
- **Once the trastuzumab has been given the needle should be held in place for 30 seconds to prevent backtracking.**
- **Do not massage the area after injection.**

## Nurse Guide for SC Trastuzumab Administration

### Essential equipment

Gloves, apron and eye protection

21 gauge and 25 gauge needles

5ml luer lock syringe

Alcohol swab

Sterile gauze

Subcutaneous Trastuzumab **600mg / 5ml** solution for injection vial

### Trastuzumab - for subcutaneous use only

#### Pre-procedure

| Action  | Rationale   |
|---|---|
| 1. Explain and discuss the procedure with the patient. Confirm consent as per local Trust policy  | To ensure that the patient understands the procedure and gives their valid consent (Griffith and Jordan 2003, NMC 2008, NMC 2008).  |
| 2. Before administering any prescribed drug, look at the patient's prescription and look at the following:<br>(a) Correct patient<br>(a) Drug<br>(b) Dose<br>(c) Date and time of administration<br>(d) Route and method of administration<br>(e) Diluent as appropriate<br>(f) Validity of prescription<br>(g) Signature of prescriber<br>(h) The prescription is legible.<br>(i) All appropriate investigations (e.g. Echocardiogram/MUGA have been carried out and are within protocol limits) | To ensure that the patient is given the correct drug in the prescribed dose using the appropriate diluent and by the correct route (DH 2003, NMC 2010, ). To protect the patient from harm (DH 2003, NMC 2010, ). |
| <b>If any of these pieces of information are missing, are unclear or illegible then the nurse should not proceed with administration and should consult with the prescriber</b>   |   |

### Preparation

| Action   | Rationale  |
|--|--|
| <ul style="list-style-type: none"> <li>- Wash hands with bactericidal soap</li> <li>- Inspect the solution for cloudiness or particulate matter. If present discard and follow Trust policy. <b>The liquid should be a clear to opalescent solution.</b></li> <li>- Withdraw the trastuzumab solution into the vial utilising locally agreed safety guidelines for the administration of subcutaneous medication</li> <li>- Attach a new needle and discard the old needle into an appropriate sharps bin</li> </ul> | To prevent contamination of medication and equipment (DH 2007 ). |

### Procedure

| Action  | Rationale   |
|---|---|
| <ul style="list-style-type: none"> <li>- Wash hands and apply an apron.</li> </ul>  | To prevent possible cross contamination   |
| <ul style="list-style-type: none"> <li>- Close the curtains or door and assist the patient into the required position.</li> </ul>   | To ensure patient's privacy and dignity.<br>To allow access to the appropriate injection site (Ostendorf 2011).                                 |
| <ul style="list-style-type: none"> <li>- Remove appropriate garments to expose the injection site (thigh).</li> <li>- The injection site should be alternated on each cycle</li> <li>- New injections should be given at least 2.5cms from the previous site</li> </ul> | To gain access for injection.<br>The patient should be seated with their thigh exposed and their leg extended<br>To minimise trauma to the area |
| <ul style="list-style-type: none"> <li>- Assess the injection site for signs of inflammation, oedema, and infection/skin lesions.</li> </ul>  | To promote effectiveness of administration (Ostendorf 2011, ).<br>To reduce the risk of infection (Fraise and Bradley 2009, Workman 1999, ).    |
| <ul style="list-style-type: none"> <li>- Wash and dry hands and apply clean gloves</li> </ul>   | To prevent contamination of medication and equipment (DH 2007, ). To prevent possible cross contamination                                       |

|  |  |
|--|--|
| - Pinch the skin of the area   | To minimize the risk of missing the subcutaneous tissue and any ensuing pain (Ostendorf 2011, FIT 2011 ).                    |
| - Where appropriate clean the injection site with a swab saturated with isopropyl alcohol 70%.   | To reduce the number of pathogens introduced into the skin by the needle at the time of insertion (FIT 2011, )               |
| - Remove the needle sheath   | To prepare the syringe for use   |
| - Gently pinch the skin up into a fold   | To elevate the subcutaneous tissue, and lift the adipose tissue away from the underlying muscle (Ostendorf 2011, FIT 2011,). |
| - Hold the syringe between thumb and forefinger of dominant hand as if grasping a dart.  | To enable a quick smooth injection (Ostendorf 2011, ).   |
| - Insert the needle into the skin at an angle of 30° and release the grasped skin . Inject the drug slowly 2 – 5 minutes   | Injecting medication into compressed tissue irritates nerve fibres and causes the patient discomfort (Ostendorf 2011, ).     |
| - <b>The needle should be held in place for 30 seconds before withdrawing</b><br>- Withdraw the needle rapidly. Apply gentle pressure with sterile gauze. Do not massage area. | To prevent back tracking and to aid absorption. Massage can injure underlying tissue (Ostendorf 2011, ).                     |

### Post procedure

| Action  | Rationale  |
|---|--|
| - Ensure that all sharps and non-sharp waste are disposed of safely and in accordance with locally approved procedures. | To ensure safe disposal and to avoid laceration or other injury to staff (MHRA, 2004, DH, 2005, ).   |
| - Record the administration as per Trust guidelines   | To maintain accurate records, provide a point of reference in the event of any queries and prevent any duplication of treatment (NMC 2010, NMC 2009, NPSA 2007). |

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