



**NATIONAL HEMOPHILIA FOUNDATION**  
*for all bleeding disorders*

**NHF Nursing Working Group**

**Emicizumab Subcutaneous Injection Guidelines**

Purpose: The purpose of this guideline is to supplement established best nursing practice and individual institutional policies to enhance care delivery and education of persons with bleeding disorders receiving home therapy requiring subcutaneous injection with emicizumab. It is important to teach our patients correct subcutaneous injection technique, as incorrect technique can lead to poorly absorbed medication (Hicks et al., 2011). This guideline focuses on educating patients about the procedure of self-administration of emicizumab. *This guideline does not include all standard patient education about the drug. Additional references are listed at the end of this guideline.*

Equipment/Supplies:

- Medication vial(s)
- Alcohol pads
- Syringe (1 mL or 3 mL, depending on volume)
- Needles
  - 18 gauge filter transfer needle
  - 25, 26 or 27 gauge injection needle (may or may not have availability of safety shield)
- 2x2 inch gauze pad and/or bandage
- Sharps container
- Medication log

*\*additional supplies may be needed if the patient requires more than one injection per dose*

Procedure:

1. ADMINISTRATION

*Getting started:*

- Thoroughly wash your hands
- Gather your supplies
- Check the label to ensure the correct medication, dose, and route.

Note: Give the loading dose(s) under medical supervision. If the loading dose is different than the maintenance, patients should be educated specifically about the maintenance dose and how to prepare it (MASAC #258).

- Ensure the medication is not damaged or expired.
- Ensure the appearance has not changed in color or clarity. Do not use the medication if there is particulate matter or discoloration; the vial should be returned.
- Allow medication to come to room temperature before administration, about 15 minutes.

Note: The medication can be at room temperature for up to 7 days in the original package.

*Prepare the medication:*

- Remove the cap from the top of the vial.
- Clean the top of the vial with an alcohol swab
- Remove the syringe from the packaging. If the filter needle is not already attached, attach the filter needle. Avoid touching the parts of the needle and syringe that connect together.
- Pull back on the plunger to fill the syringe with air equal to the volume of the medication that will be drawn up.
- Remove the cap (place it on its side on a clean area such as the inside of the syringe wrapper).
- With the medication vial in an upright position, on a clean flat surface, insert the needle into the center of the cleansed top of the vial.
- Invert the vial with the needle inserted.
- Inject the air with the tip of the needle above the medication to prevent air bubbles
- Lower the tip of the needle into the medication and slowly pull back on the plunger to draw up the prescribed medication dose.
  - If there are large air bubbles, flick them to the top of the syringe and push the air back into the vial.
  - If the syringe has been over-filled, push the excess back into the vial.
  - Check to make sure you have drawn up the correct dose before removing the needle from the vial.
    - *Tip: Vial should be in the inverted position at this point; flipping the vial right side up before removing needle may prevent loss of some medication from the vial.*

Note: *If the prescribed dose requires medication from more than one vial, you will need to withdraw all of your medication. Refer to Genentech's Instruction for Use on how to*

combine vials. Vials come in different concentration strengths, not just different doses, so this should be kept in mind when teaching patients how to prepare their medication.

Note: If the total dose volume is greater than 2 mL, the patient will require more than one injection.

- Using one hand, recap the filter needle by scooping the tip of the needle into the cap. Once it is covered, press down on the cap to secure.
- Remove the filter needle and apply the injection needle.

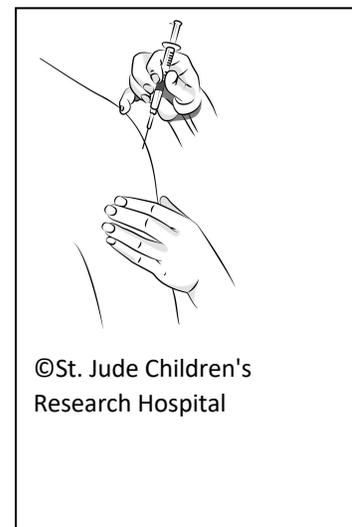
Note: It is important to consider the size of your patient when choosing a needle length, to ensure the medication is given subcutaneously. In general, use a small, short needle (NIH, 2016).

#### Choosing and preparing an injection site:

- Choose the injection site
  - Most common injection sites: lateral or posterior aspects of upper arms, thighs and umbilical region of abdomen (Ogston-Tuck, S., 2014; Shepherd, E., 2018, NIH, 2016)
  - Avoid scars, moles, skin lesions, bruised, erythematous, tender or hardened areas, and areas over bony prominences, blood vessels and nerves.
  - Avoid 2 inch perimeter of the umbilicus
  - Sites should be rotated, at least 1 inch from the prior injection to prevent irritation or scarring.
- Cleanse the area with an alcohol wipe and allow to air dry

#### Performing injection:

- Inject the needle, bevel up, at a 45-90 degree angle, depending on subcutaneous tissue and needle length, using the lifted skin technique.
- Let go of the lifted skin, being careful that the needle does not inadvertently exit the body.
- Aspiration is not necessary.





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- Slowly inject the medication.
  - You may consider waiting a few seconds before needle withdrawal to avoid leakage.
- Withdraw the needle at the same angle.
- Activate the safety shield.
- Dispose all sharps in a sharps container.

### 2. MONITORING AND MAINTENANCE

#### *Post-injection:*

- Do not massage the skin after injection.
- Monitor for any bleeding or adverse reactions and apply a bandage or gauze as needed
- Any medication left in the vial must be disposed, as emicizumab vials are not multi-use.



### 3. DOCUMENTATION AND EDUCATION

- Accurately document the medication name, dose, date, time and site.
- Educate the family on:
  - Contacting the HTC regarding significant weight changes for possible dosage change
  - Contacting the HTC regarding increased bleeding symptoms
  - Planning their schedule for additional dosage administration
  - Carrying pertinent emicizumab information, such as an emergent care card

#### Procedure History

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Originated: July 12, 2021

This guideline is intended for the enhancement of care delivery to individuals with bleeding conditions. It should be used as a supplemental nursing guide.

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#### *References:*

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#### *Acknowledgement:*

The infographics used in this guideline are used by kind permission of St. Jude Children's Research Hospital.