*Affix Patient identification label here*

**Step 1 Collect the following equipment**

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| **Equipment Required** | **Number required to do the infusion** |
| 1. Hizentra treatment diary/ My Hizentra App *(SWH code for set up 4949)* | 1 |
| 1. Sharps container | 1 |
| 1. Infusion mat | 1 |
| 1. Hizentra 20% vials (Bring to room temperature prior to use)   *E.g. for 7grams dose: x1 1gm vial, x1 2 gm vial and x1 4 gm vials.*  *Notify SWH pharmacy 1 week in advance of needing more medication* | \_\_1gm vial, \_\_2 gram vial  \_\_4 gm vials, \_\_10 gram vial |
| 1. BD 50mL leurlock syringes | ……. |
| 1. Micropin (transfer device) | 1 per syringe |
| 1. Alcohol swabs | 3 |
| 1. Multi lumen subcutaneous needles | …… |
| 1. Transparent dressing *comes with EMED needles* | 1 per injection site |
| 1. EMED infuser *if using* | 1 |
| 1. Rate controller *if using* | 1 |
| 1. ‘Bandaids’ | 1 per site |

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| **Step** |  |
| 2 | * Place the mat on a stable surface * Clean the mat with one of the alcohol swabs. |
| 3 | * Wash hands with soap and water, dry thoroughly with a clean towel. * Use a small amount of the hand sanitiser on both hands, let hands dry. |
| 4 | * Inspect the vials of Hizentra 20% * Check each vial carefully:   + the expiry date   + the dose   + the volume   + the colour. * The colour should look clear and can be from pale yellow to light brown. Do not use it if:   + it is cloudy   + It has particles   + is missing the protective cap   + is past the expiry * The vials should add up to your dose. Your dose is x….. grams, …… you will need:   + Vial sizes… 1 gram vials (5mL) yellow   + … 2 gram vials (10mL)blue   + ….4 gram vials (20mL)green   + … 10 gram vials (50mL) purple   + Which will be a total of… grams in ….mL. * Remove the stickers from the vials and put into the booklet (or scan the stickers if using My Hizentra App) |
| 5 | * Take the cap off each vial of Hizentra * Wipe each top with an alcohol swab and allow to dry |
| 6 | * Open the first syringe and micropin, being careful not to touch the end of the micropin or syringe to keep them sterile. * Attach the micropin to the syringe, being careful not to touch the end of the needle or syringe to keep them sterile, twisting in a clockwise direction until it feels firm on the syringe * Pull out the plunger on the syringe to fill it with air   + The amount of air should be the same as the amount of Hizentra to be withdrawn from the vial i.e. 10ml air for a 10ml vial, 20ml air for a 20ml vial.   + Be careful not to touch the inner portion of the plunger or the micropin to keep it sterile |
| 7 | * + Put the Hizentra vial on a flat surface   + Keeping the vial upright, insert the micropin into the center of the rubber stopper   + Check that the tip of the micropin is not in the liquid (if the micropin is in the liquid withdraw it slightly, but keeping it in the vial   + Push the plunger on the syringe down   This will inject the air from the syringe into the airspace of the vial. |
| 8 | * While keeping the plunger pressed in, to ensure the air doesn’t come out of the vial, carefully turn the vial and syringe upside down without removing the micropin from the vial, and being careful not to touch the micropin * Keeping the needle in the liquid the entire time, slowly pull back on the plunger to fill the syringe with Hizentra * Take the filled syringe and needle out of the vial * Repeat step 7&8 drawing up the rest of the vials * Carefully take off the micropin and throw it away in the sharps container |
| 9 | * To prime the tubing, connect the syringe filled with Hizentra to the (rate controller if using) then to the subcutaneous needle tubing, do not remove the covers on the needles. Check the clamps (rate controller is on 4)are open * Gently push on the syringe plunger to fill the tubing with Hizentra. Do not let the medicine reach the tip of the needles stop about a centimetre before the needle. * Once this is done slide the clamp closed on each of the needles lines. (Rate controller set to OFF) |
| 10 | * Prepare the infusion sites * Select an area on your …………………………. for the infusion * Never infuse into areas where the skin is tender, bruised, red or hard * Avoid infusing into scars, tattoos or stretch marks * If you are using more than one infusion site at the same time, be sure sites are at least 5cms apart * Clean the skin at each site with a alcohol swab, let the skin dry   Subcutaneous Infusion Sites |
| 11 | * Remove the cover from one needle and Insert needle * With 2 fingers, pinch together the skin around the infusion site * Insert the needle at 90 degrees (right angles) to the skin. Flatten the wings onto the skin and secure the needle with transparent dressing. * Repeat for all needles |
| 12 | * Make sure you are not injecting Hizentra into a blood vessel * Hizentra should only be administered subcutaneously (beneath the skin) * Perform the safety test BEFORE putting the syringe into the pump * unclamp the lines and pull the plunger back gently (or turn rate controller to open) * If you see any blood in the tubing of any site, clamp tubing for that site and remove the needle. * Hizentra should not be infused in the area where you see blood * You will need to insert a new needle set up. * You may need at least 2 sites to infuse the Hizentra into, with no more than 25mL per site. |
| 13 | * Make sure all the lines are clamped (rate controller turned to OFF) * Ensure pump is ready- unwind the blue drive handle until it is fully extended * Insert the syringe plunger into the infusion device until it stops. * Lock the syringe into the SCIg 60 Infuser by turning the syringe clockwise until it stops. * Check the syringe flange is in the window of the pump to ensure the syringe is secure in the device. * Wind the blue drive handle until fully closed, (the base of the handle touches the body of the pump; this primes the spring in the pump. * Unclamp each line (and/or on the rate controller select the desired flow rate, can start at open if 27g needles and use control dial to slow rate if not tolerated) and the infusion will run. |
| 14 | * Once the infusion is complete, clamp the lines (turn rate controller to OFF). * Remove the syringe from the device: * Unwind the blue drive handle a few turns. * Unlock the syringe by turning it anticlockwise until it stops and gently remove from the pump * Remove the needles from the sites, discard the needles and syringe together in the yellow sharps bin. * Remove the stickers from the vials (if not already done so)and put onto the record /scan into app * Discard the vials in the yellow sharps bin * Put a small dressing or bandaid over the sites. * Record any reactions or problems associated with the infusion in your infusion diary (or app) * Mat can be cleaned with a cleaning wipe or warm soapy water between uses |

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| Adverse effects | Adverse effects tend to most commonly be infusion site related. Table 2 and 3 outline possible effects and management. **Table 2: Possible side effects**   |  |  |  | | --- | --- | --- | | **Very Common** | **Common** | **Rare** | | * Infusion site related * Fever * Nausea * Vomiting * Diarrhoea | * Chills * Back pain * Arthralgia ( inflamed joints) * Hypotension ( low blood pressure) | * Allergic reactions * Anaphylactic shock * Thrombotic reactions * Urticaria (rash) |  Table 3: Adverse effect management at home (Ensure to record all adverse effects in diary)  |  |  |  | | --- | --- | --- | | **Reaction** | **Action 1** | **Action 2** | | **Mild** (common skin reaction)  Large swelling and redness at insertion site | Apply cold pack to the area | Take paracetamol or antihistamine if instructed/ordered. Swelling should resolve over next 24-48hrs | | **Moderate**  Headache, flushing, nausea, shivering, itching, muscle aches, anxiety, dizziness, irritability | **STOP** infusion for 30 minutes | Restart when symptoms have gone, Take paracetamol / antihistamine if instructed /ordered | | **Severe**  Chest pain, wheezing severe itching or any mild or moderate symptoms as above become worse | **STOP infusion**  **Call 000 to get urgent medical help**  Lie or sit down as comfortable | Tell your doctor or nurse specialist as soon as able. | | | |
| **Troubleshooting Site reactions**  Injection-site reactions following SCIg therapy. Examples of injection-site reactions that were classified as mild and moderate are shown.**Mild ModerateInjection-site reactions following SCIg therapy. Examples of injection-site reactions that were classified as mild and moderate are shown.** | | |
| **Injection site reactions**   * Blanching * Redness/ Rash * Itching * Discomfort * Swelling | | Assess for tape allergy – change to paper/ hypoallergenic tape  Assess needle size- choose needle that is consistent with volume to be infused  Assess length of needle – may be too short and infusing into the intradermal layer  Assess site location – may be too close to muscle layer Decrease rate of infusion or volume per site  Avoid tracking of Ig through the intradermal (skin)layer check needle tip is dry prior to insertion  Consider appropriateness of rotating infusion site  Consider use of topical anaesthetic cream |
| **Leaking at insertion site** | | Assess needle - ensure fully inserted and fixed securely  Assess placement – is it in area of movement, consider alternative site Assess length of needle – may be too short, change to longer needle Assess infusion volume – decrease amount per site  Assess rate of infusion – slowing rate may help |
| **Extreme discomfort with needle** | | Assess needle length ensure no too long and irritating abdominal wall  Assess needle is being inserted “dry” to prevent tracking through intradermal layer  Consider using needless indwelling subcutaneous catheter device  Consider using ice or topical anaesthetic cream prior to insertion. |
| **Long infusion time** | | Ensure SCIg ready to use at room temperature  Assess volume per site, rate of infusion, number of sites or adjust infusion regime  Check equipment for clamps/kinks, correct selection of needle size, tubing. If using a pump check function, battery not low. |
| **Blood return observed** | | Remove and discard needle with blood return and reinsert with new insertion needle and site |