

# Your guide to self-administration of your pre-mixed IV antibiotics at home

## A patient's guide

This step-by-step instruction guide is designed to help you feel safe and confident in administering your own intravenous antibiotics at home. It will complement the full training you will have already received from your nursing team.

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## Welcome

We are committed to ensuring all our patients receive the highest quality care at Royal Papworth Hospital, and this includes supporting our patients who deliver their treatments in the comfort of their own home.

This guide will take you through the most important steps involved in self-administering your intravenous (IV) antibiotics at home.

However, if you have any questions, contact your clinical or nursing team for more advice.

## Getting started

Your clinical team will organise a course of prescribed pre-mixed IV antibiotics and all your required equipment. A homecare service will deliver this to your home before you start your training with the nursing team. Your nursing team will explain how this service operates.

At the first delivery you will receive:

- Prescribed medication
- A fridge to store your medication
- A sharps bin to dispose of equipment

## Aseptic Non-Touch Technique (ANTT)

### General principles

The Aseptic Non-Touch Technique (ANTT) should always be used when administering your IV antibiotics. This process reduces the risk of bacterial contamination that could lead to infection.

**Always use these key principles. Serious infection may result if appropriate precautions are not followed.**

### Key principles

- You should always use a clean surface to prepare your treatment and use a clean plastic tray to assemble your equipment on.
- Disposable disinfectant wipes or disinfectant spray should be used for a thorough clean.
- Always wash and dry your hands thoroughly.
- Do not open sterile equipment until you are ready to use it and discard any contaminated equipment if accidentally touched. Use a new, sterile one instead.
- Always use a comfortable well-lit area when preparing your IV antibiotics, such as a kitchen table or counter top.
- You should always be careful not to touch the key parts of your equipment to keep them sterile:
  1. The end of the pre-filled syringe.
  2. The end of the line on an infusion device.
  3. The end of the bionector (this is attached to your vascular access line/device).

## Hand washing guidance

Follow these steps to wash your hands effectively using the Aseptic Non-Touch Technique (ANTT). This is important to reduce the risk of infection.

The process should take about two minutes when completed properly.



Wet your hands with running water



Place right palm on left hand, interlace fingers and rub. Repeat with left palm on right hand



Clasp a thumb in opposite palm and rotate rubbing firmly. Repeat with other thumb



Dry your hands thoroughly with a single-use towel



**2**  
Apply enough soap to cover the whole surface of your hands



**3**  
Place hands palm to palm and rub in a circular motion



**5**  
Place hands palm to palm with fingers interlaced and rub up and down



**6**  
Interlock your fingers to bring the back of the fingers to opposing palms and rub up and down



**8**  
Clasp right fingers, place in left palm and rotate. Repeat with left hand fingers



**9**  
Rinse your hands with water



**11**  
Use the towel to turn off the tap



**12**  
Your hands are now cleaned thoroughly!

## Section 1: pre-filled antibiotic syringe

Please follow the step-by-step instruction to help you administer your IV antibiotics using a pre-filled antibiotic syringe. This will complement the full training you will have received already from your nursing team.

Remember to ask your nursing team for guidance if you feel unsure at any stage of administering your IV antibiotics.

### Step 1: preparation



- Remove medication from the fridge.
- Gather all the required equipment, including alcohol swabs and sharps bin.
- Disinfect your work area with disinfectant wipes or spray.



- Wash your hands thoroughly.
- Lay out your medication on the cleaned tray or work surface in the order you are going to use it.
- Always check the medication name, expiry date and dose.

## Step 2: preparation of the medication

- Check your antibiotics and flushing solutions are correct and in date.
- Check for any damage to the pre-filled syringes.
- Open medication wrappers carefully. Recheck the expiry date and arrange neatly on tray.



- Take the Sodium Chloride flush syringe. Twist the cap, push in the plunger and break the seal, then close the cap.
- For the antibiotic syringe and Heparin flush syringe, remove the cap from the syringe, push the plunger and when the fluid reaches the tip the air is expelled. Using the ANTT, screw the cap back on.



**Note:** Check and remove any air bubbles from your pre-filled syringes as you have been shown by your clinical or nursing team.

### Step 3: administering the medication

1



- Wash your hands thoroughly.
- Check the venous access line site for signs of infection including redness, tenderness or swelling.
- If you have concerns, do not continue and notify your clinical or nursing team as soon as possible.

2



- Clean the bionector with an alcohol wipe for 20 seconds.
- Leave to dry for at least 30 seconds.

3



- Take the Sodium Chloride flush syringe. Using the ANTT, remove the cap and attach to the bionector.
- Open clamp on the extension line and push the plunger slowly.
- Inject the amount of flush as instructed by your nursing team.
- Disconnect the syringe. Using ANTT, screw the cap back on.



- Take the pre-filled antibiotic syringe. Using the ANTT, attach to the bionector.
- Inject the antibiotic as instructed by your nursing team.
- Once complete, disconnect the syringe and place in the sharps bin.



- Attach the Sodium Chloride flush syringe to the bionector and push in the plunger to give remaining flush. Disconnect. Place empty syringe in sharps bin.
- Take the Heparin flush syringe. Using the ANTT, remove the cap and attach to the bionector.
- Push the plunger slowly. As it reaches the end, take hold of the clamp and start to close it, while continuing to push plunger.



- When finished, disconnect the syringe and place in sharps bin.
- Clean the bionector again with an alcohol wipe for 20 seconds.
- Cover your IV line again as taught by your nursing team.
- Dispose of your other waste in normal domestic bin. Wash your hands thoroughly.



## Section 2: pre-filled infusion device

Please follow the step-by-step instructions to help you administer your IV antibiotics using a pre-filled infusion device. This will complement the full training you will have received already from your nursing team.

Remember to ask your nursing team for guidance if you feel unsure at any stage of administering your IV antibiotics.

### Step 1: preparation



- Remove medication from the fridge.
- Gather all the required equipment, including alcohol swabs and sharps bin.
- Disinfect your work area with disinfectant wipes or spray.



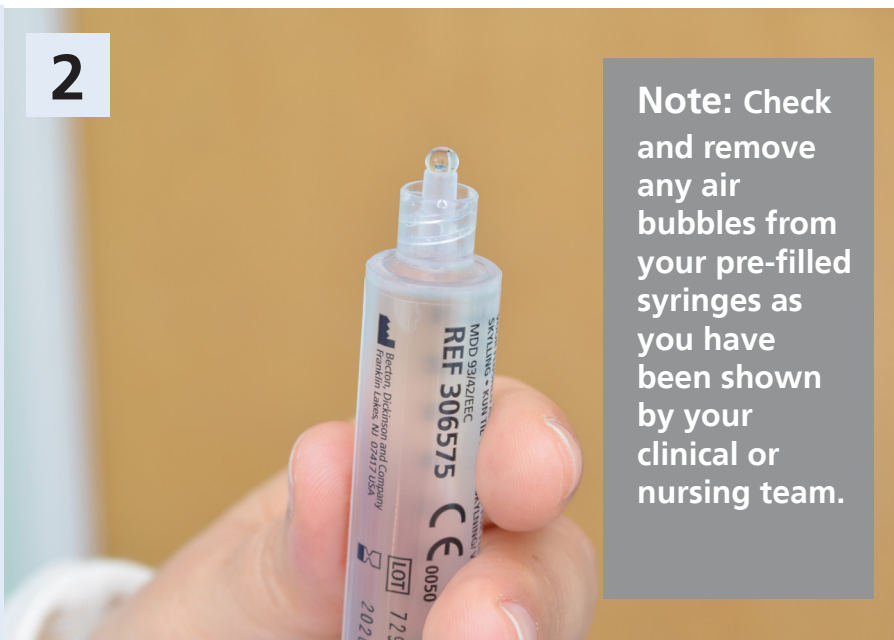
- Wash your hands thoroughly.
- Lay out your medication on the cleaned tray or work surface in the order you are going to use it.
- Always check the medication name, expiry date and dose.

## Step 2: preparation of the medication

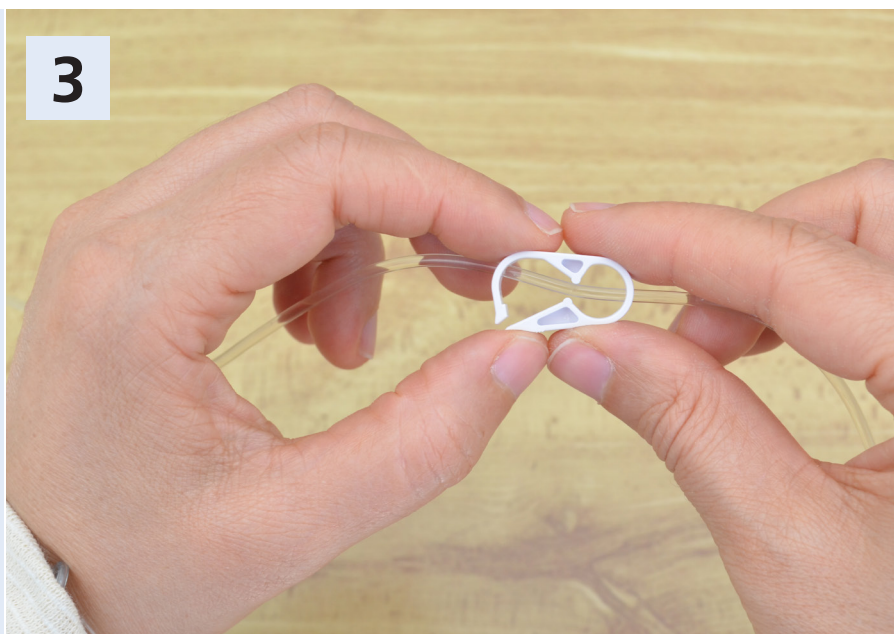
- Check your infusion device antibiotic and pre-filled syringes for any damage.
- Check for any damage to the pre-filled syringes.
- Open medication wrappers carefully. Recheck the expiry date.



- Take the Sodium Chloride flush syringe. Twist the cap, push in the plunger and break the seal, then close the cap.
- For the Heparin flush syringe, remove the cap from the syringe, push the plunger and when the fluid reaches the tip the air is expelled. Using the ANTT, screw the cap back on.

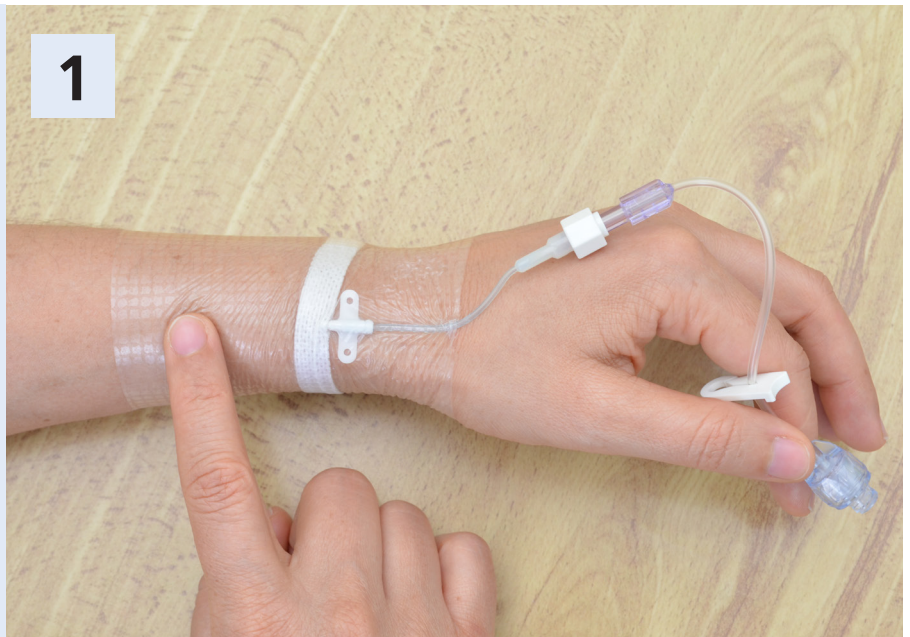


- Remove any kinks in the infusion device line and loosen the protective cap.
- Open clamp on the line and allow tube to fill. When you see fluid appear at the end, it is primed.
- Close the clamp and close the protective cap.



### Step 3: administering the medication

- Wash your hands thoroughly.
- Check the venous access line site for signs of infection including redness, tenderness or swelling.
- If you have concerns, do not continue and notify your clinical or nursing team as soon as possible.



- Clean the bionector with an alcohol wipe for 20 seconds.
- Leave to dry for at least 30 seconds.





- Take the Sodium Chloride flush syringe. Using the ANTT, remove the cap and attach to the bionector.
- Open clamp on the extension line and push the plunger slowly.
- Inject the amount of flush as instructed by your nursing team.
- Disconnect the syringe. Using ANTT, screw the cap back on.



- Take the primed device infusion line. Using the ANTT, remove the cap and attach to the bionector with a clockwise turn.
- Open the clamp to allow the infusion to start.



- When the infusion is complete, close the clamp on the infusion device line.
- Disconnect and place it in your sharps bin.

### Step 3: administering the medication, continued

- Attach the Sodium Chloride flush syringe to the bionector and push in the plunger to give remaining flush. Disconnect and place the empty syringe in the sharps bin.
- Take the Heparin flush syringe. Using the ANTT, remove the cap and attach to the bionector.
- Push the plunger slowly. As it reaches the end, take hold of the clamp and start to close it, while continuing to push plunger.
- When flush is finished, close clamp completely.



**Note:** You need to flush your line before and after administering your IV antibiotics. If you have more than one antibiotic, you will need to flush between each medication.

- When finished, disconnect the syringe and place in sharps bin.
- Clean the bionector again with an alcohol wipe for 20 seconds.
- Cover your IV line again as taught by your nursing team.
- Dispose of your other waste in normal domestic bin. Wash your hands thoroughly.



## Section 3: frequently asked questions (FAQs)

If you experience any difficulties when administering your treatment, there may be a quick way to troubleshoot the issue.

Here are some frequently asked questions to guide you if this happens.

Remember to ask your nursing team for guidance if you still feel unsure at any stage of administering your IV antibiotics.

### What do I do if there is swelling or redness around my venous access site?

Please contact your clinical or nursing team for immediate advice. Discontinue your treatment if you have any pain or resistance when giving your IV antibiotics and contact your clinical or nursing team as soon as possible.

### Why won't the injection go in?

Something may be blocking the flow. Check the venous access site. If it is red, swollen or painful, seek advice from your clinical team or nursing team before continuing with your treatment.

If not, try straightening your arm and stroking the line gently.

### Why does my infusion device refuse to run?

There are a few things you can check if this happens:

- Check the venous access site. If it is red, swollen or painful, seek advice from your clinical team before continuing with your treatment.
- Check the infusion device for signs of damage and remove any kinks from the tubing.
- Check that the clamp on the device is open.

### What should I do if I experience any side effects from the treatment?

Seek advice from your clinical team immediately before continuing with your treatment.

For more information and video podcasts please visit our website:

[royalpapworth.nhs.uk/our-services/respiratory-services/cambridge-centre-lung-infection-ccli/lung-defence-home-iv-service](http://royalpapworth.nhs.uk/our-services/respiratory-services/cambridge-centre-lung-infection-ccli/lung-defence-home-iv-service)

### Clinical or nursing team contact details

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**Notes**










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