



# PHARMACY 'FAST TRACK' TRAINING PROGRAMME FOR THE PREPARATION OF INJECTABLE MEDICATION

Pharmacy Staff Member Name \_\_\_\_\_

Date \_\_\_\_\_

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## Introduction

During the emergency period relating to Covid-19, pharmacy staff may be redeployed to support the preparation of critical injectable medicines to meet the increasing demand, facilitate releasing nursing time to care and to reduce the wastage of critical medicines. In the first instance, where capacity allows, preparation will take place within the department's Aseptic unit.

This 'fast track' training programme provides the minimum education and competency assessment for pharmacy staff to safely prepare injectable medicines.

## Scope

- The information contained in this document applies to the preparation of injectable medication.
- The training programme applies only to the preparation of intravenous, subcutaneous, intramuscular, bolus and infused medicines. It does **not** apply to medicines prepared for epidural or spinal injection.
- This training programme **does not** apply to the administration of injectable medicines.
- Assessments and competency observations will be completed by Pharmacy Aseptic Unit Head of Production or Head of Quality or their designated deputy.
- This training programme is valid only for the duration of the current COVID-19 emergency situation.
- This training programme is designed to be undertaken by Accuracy Checking Pharmacy Technicians and or Pharmacists in the first instance. Ideally trainees will have experience of working in Good Manufacturing Practice (GMP) based aseptic environment.


Recognised Accuracy Checking programmes are defined as:

- Final Accuracy Checking of dispensed items
- Pre and In Process Checking within aseptic services
- Final Accuracy Checking within aseptic services
- Product Approval Accreditation

Consideration may be given to suitably trained and experienced Pharmacy Technicians/Assistant should workforce resource dictate

- Pharmacy Technicians and Pharmacists undertaking this role should always adhere to regulatory professional standards and appropriate professional guidance, including any such guidance relating specifically to roles carried out during the COVID 19 pandemic.
- A joint letter from the Department for Health and Social Care, NHS Resolution, and NHS England and NHS Improvement: 'clinical negligence indemnity in response to Coronavirus' outlines indemnity arrangements for HCP whilst working differently during the pandemic.  
[https://resolution.nhs.uk/wp-content/uploads/2020/03/20200402-Tripartite Indemnity letter.pdf](https://resolution.nhs.uk/wp-content/uploads/2020/03/20200402-Tripartite%20Indemnity%20letter.pdf)
- Pharmacy Technicians and Pharmacists should adhere to the scope of practice covered in the training programme:
  - Reconstitution of powdered injection
  - Preparation of an Ecoflac Plus 100mL
  - Withdrawing solution into a syringe and injecting into an intravenous fluid bag
- Practice will be limited to the list of priority medicines outlined the LTHTR Procedure for Preparation of Injectable Medicines by Pharmacy Technicians and Pharmacists.
- Pharmacy Technicians and Pharmacist must familiarise themselves with the method of preparation for the specific priority medicine prior to commencing any preparation.

## Training and Competency Time Table

Task	Duration	Date Completed
Complete LTHTR Blended Learning programme <i>Aseptic Non Touch Technique training</i> <a href="https://elearning.lthtr.nhs.uk/course/search.php?search=ANTT">https://elearning.lthtr.nhs.uk/course/search.php?search=ANTT</a>	30 minutes	
Read National Patient Safety Agency March 2007 <i>'Promoting Safer use of Injectable Medicines'</i>  2007-NRLS-0434F-Pr omoting-safeSOP-ten	30 minutes	
Read Specialist Pharmacy Service Guidance March 2020 <i>'COVID-19 Guidance: Minimising Wastage of Critical Injectable Medicines'</i> <a href="https://www.sps.nhs.uk/wp-content/uploads/2020/04/COVID-19-Guidance-Minimising-Wastage-of-Critical-Injectable-Medicines-clinical-areas-V2b.pdf">https://www.sps.nhs.uk/wp-content/uploads/2020/04/COVID-19-Guidance-Minimising-Wastage-of-Critical-Injectable-Medicines-clinical-areas-V2b.pdf</a>	30 minutes	
Read Specialist Pharmacy Service Guidance April 2020, <i>'Preparation of injectable medicines at the ITU bedside: quick reference guides'</i> <a href="https://www.sps.nhs.uk/wp-content/uploads/2020/04/Bedside-preparation-aid-cards-for-clinical-areas.pdf">https://www.sps.nhs.uk/wp-content/uploads/2020/04/Bedside-preparation-aid-cards-for-clinical-areas.pdf</a>	30 minutes	
Watch Drug Preparation with Ecoflac Connect video <a href="https://www.youtube.com/watch?v=ib2h1b-gZ88">https://www.youtube.com/watch?v=ib2h1b-gZ88</a>	5 minutes	
Aseptic Practical Training	60mins	
Skills Practice	45mins	
Observed Competency for preparation of <b>Performance Criteria should be observed maximum 3 times by the assessor</b> <ul style="list-style-type: none"> <li>• Reconstitution of powdered injection</li> <li>• Preparation of an Ecoflac Plus 100mL</li> <li>• Withdrawing solution into a syringe and injecting into an intravenous fluid bag</li> </ul>	30 minutes hour	

## Observed Competency Assessment for the Preparation of Injectable Medication

### Reconstitution of Powdered Vial

Performance Criteria should be observed maximum 3 times by the assessor

Performance Criteria	Competency Level	Assessor signature	Trainee Signature
Cleaning techniques are performed correctly			
Labels are produced and completed correctly			
Appropriate needles, syringes, etc. selected			
Raw materials are selected correctly			
Able to manipulate syringes, needles correctly			
Able to manipulate syringes, needles aseptically			
Reconstitutes powdered vial correctly			
Withdraws reconstituted solution into syringe			
Attaches label to syringe			
Reconciles reconstituted product			
Ensures accuracy check is completed			
Safely disposes of all waste			

Overall Assessment

Competent/Not Competent

A = Proficient
B = Satisfactory
C = Requires further training
D = Unsatisfactory

Comments

Assessor Signature: \_\_\_\_\_ Date: \_\_\_\_\_

### Preparation of Injectable Medication using Ecoflac Device

Performance Criteria should be observed maximum 3 times by the assessor

Performance Criteria	Competency Level	Assessor signature	Trainee Signature
Cleaning techniques are performed correctly			
Work sheet and labels are produced and completed correctly			
Appropriate Ecoflac devices selected			
Raw materials are selected correctly			
ANTT technique is performed			
Reconstitutes powdered vial correctly using Ecoflac device			
Attaches label to bottle			
Reconciles reconstituted product			
Ensures accuracy check is completed			
Safely disposes of all waste			

Overall Assessment

Competent/Not Competent

A = Proficient
B = Satisfactory
C = Requires further training
D = Unsatisfactory

Comments

Assessor Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## Withdrawing Solution into Syringe and injecting into intravenous bag

Performance Criteria should be observed maximum 3 times by the assessor

Performance Criteria	Competency Level	Assessor signature	Trainee Signature
Cleaning techniques are performed correctly			
Work sheet and labels are produced and completed correctly			
Appropriate needles, syringe, etc. selected			
Raw materials are selected correctly			
Able to manipulate syringe, needles correctly			
Able to manipulate syringe, needles aseptically			
Draws up solution correctly and injects into IV bag			
Attaches label to bag			
Reconciles reconstituted product			
Ensures accuracy check is completed			
Safely disposes of all waste			

Overall Assessment

Competent/Not Competent

A = Proficient
B = Satisfactory
C = Requires further training
D = Unsatisfactory

Comments

Assessor Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## **Checklist for the Reconstitution a Powdered Vial**



## Checklist for the Reconstitution of Medication using an Ecoflac device

Process	Completed
<p>Selects the required medication and checks</p> <ul style="list-style-type: none"> <li>• Drug name</li> <li>• Drug strength</li> <li>• Sodium Chloride 0.9% Ecoflac Plus 100mL bottle</li> </ul>	
<p>Washes hands with bactericidal soap and water or bactericidal alcohol hand rub, and assembles necessary equipment.</p>	
<p>ESSENTIAL EQUIPMENT</p> <p>Washes hands with bactericidal soap and water or bactericidal alcohol hand rub, and assembles necessary equipment.</p> <ul style="list-style-type: none"> <li>• Diluent</li> <li>• Needle</li> </ul>	
<p>ESSENTIAL EQUIPMENT</p> <ul style="list-style-type: none"> <li>• Syringe/filter straw/cap</li> <li>• Ecoflac connect</li> <li>• Sharps Container</li> <li>• Alcohol wipes</li> </ul>	
<p>Applies gloves and apron/ ensures cleaning techniques are performed correctly</p>	
<p>Removes one protective tab on Sodium Chloride 0.9% Ecoflac Plus 100mL bottle and wipes with alcohol wipe</p>	
<p>Taps the neck of the ampoule gently to release diluent into the ampoule</p>	
<p>Removes protective cap on vial and wipes vial top with alcohol wipe</p>	
<p>Opens Ecoflac connect</p>	
<p>Attaches Ecoflac connect to Sodium Chloride 0.9% Ecoflac Plus 100mL bottle</p>	
<p>Swabs the neck of the ampoule with an alcohol wipe, covers the neck of the ampoule with alcohol wipe and snaps it open. If there is any difficulty, an ampoule opening device may be required</p>	
<p>Attaches other end of Ecoflac connect to vial</p>	
<p>Slowly squeezes Ecoflac Plus 100mL sodium chloride 0.9% into the powder within the vial</p>	
<p>Draws up required diluent volume.</p>	
<p>Removes protective cap from vial and wipes vial with alcohol wipe</p>	
<p>Injects the diluent slowly into the powder within the vial, equalising pressure</p>	
<p>Agitates the vial</p>	
<p>Inspect the contents</p>	
<p>Agitates the vial</p>	
<p>When the solution is clear, elevates vial and squeezes bottle to allow contents of vial to transfer into the Ecoflac Plus 100mL sodium chloride 0.9% bottle</p>	
<p>When the solution is clear, withdraws the prescribed amount, tilting the vial if necessary</p>	
<p>Ensures all contents of the vial has transferred into the Ecoflac Plus 100mL sodium chloride 0.9% bottle</p>	
<p>Taps the syringe to dislodge any air bubbles. Expels air.</p>	
<p>Leaves vial in device and attaches a label to the bottle</p>	
<p>Discards used needle into appropriate sharps container and attaches a plastic end cap or new needle</p>	
<p>Washes hands thoroughly</p>	
<p>Attaches a label to the syringe.</p>	
<p>Places syringes in a clinically clean tray</p>	
<p>Washes hands thoroughly</p>	

<b>Process</b>	<b>Completed</b>
Selects the required medication and checks <ul style="list-style-type: none"><li>• Drug name</li></ul>	

**Checklist for the withdrawing of medication from an ampoule into a syringe**

<ul style="list-style-type: none"> <li>• Drug strength</li> <li>• Expiry date</li> </ul>	
Washes hands with bactericidal soap and water or bactericidal alcohol hand rub, and assembles necessary equipment.	
<b>ESSENTIAL EQUIPMENT</b> <ul style="list-style-type: none"> <li>• Needle</li> <li>• Syringe/filter straw/cap</li> <li>• Sharps container</li> <li>• Alcohol wipes</li> </ul>	
Applies gloves and apron/ ensures cleaning techniques are performed correctly	
Opens packaging and attaches needle or filter straw to the syringe.	
Taps the neck of the ampoule gently to release diluent into the ampoule.	
Swabs ampoule neck with alcohol wipe, covers the neck of the ampoule with an alcohol wipe and snaps it open. If there is any difficulty, an ampoule opening device may be required	
Draws up required volume of medication	
Inspect the contents	
Taps the syringe to dislodge any air bubbles. Expels air.	
Discards used needle or filter straw into appropriate sharps container and attaches a plastic end cap or new needle	
Attaches a label to the syringe.	
Places syringes in a clinically clean tray	
Washes hands thoroughly	

**Checklist for the withdrawing of medication from an ampoule into a syringe and injecting into an intravenous fluid bag**

<b>Process</b>	<b>Completed</b>
Selects the required medication and checks	

<ul style="list-style-type: none"> <li>• Drug name</li> <li>• Drug strength</li> <li>• Expiry date</li> </ul>	
Washes hands with bactericidal soap and water or bactericidal alcohol hand rub, and assembles necessary equipment.	
<p>ESSENTIAL EQUIPMENT</p> <ul style="list-style-type: none"> <li>• Needle</li> <li>• Syringe/filter straw/cap</li> <li>• Sharps container</li> <li>• Alcohol wipes</li> </ul>	
Applies gloves and apron/ ensures cleaning techniques are performed correctly	
Opens packaging and attaches needle or filter straw to the syringe.	
Taps the neck of the ampoule gently to release diluent into the ampoule.	
Swabs ampoule neck with alcohol wipe, covers the neck of the ampoule with an alcohol wipe and snaps it open. If there is any difficulty, an ampoule opening device may be required	
Draws up required volume of medication	
Inspect the contents for particles	
Taps the syringe to dislodge any air bubbles. Expels air.	
Discards used needle or filter straw into appropriate sharps container and attaches a green needle	
Removes outer packaging from IV bag	
Wipes IV bag port with alcohol wipe	
Injects contents of syringe into IV bag taking care not to puncture the IV bag.	
Removes syringe from IV bag and wipes IV bag port with alcohol wipe Attaches suitable cap to port	
Labels IV bag	
Disposes of syringe in sharps container	
Washes hands thoroughly	

**Checklist for the withdrawing of medication from a liquid vial into a syringe**

<b>Process</b>	<b>Completed</b>
Selects the required medication and checks <ul style="list-style-type: none"> <li>• Drug name</li> <li>• Drug strength</li> <li>• Expiry date</li> </ul>	
Washes hands with bactericidal soap and water or bactericidal alcohol hand rub, and assembles necessary equipment.	
ESSENTIAL EQUIPMENT <ul style="list-style-type: none"> <li>• Needle</li> <li>• Syringe/needle /cap</li> <li>• Sharps Container</li> <li>• Alcohol wipes</li> </ul>	
Applies gloves and apron/ ensures cleaning techniques are performed correctly	
Opens packaging and attaches needle to the syringe.	
Removes protective cap from vial and wipes vial with alcohol wipe	
Withdraws the prescribed amount, equalising pressure /tilting the vial if necessary.	
Taps the syringe to dislodge any air bubbles. Expels air.	
Inspect the contents for particulates	
Discards used needle into appropriate sharps container and attaches a plastic end cap or new needle	
Attaches a label to the syringe.	
Places syringes in a clinically clean tray	
Washes hands thoroughly	