



# GlucoRx Dual Safe Pen Needle training

Train the trainer session

# Local position

- Humulin M3 will no longer be available in vials and will be delivered using an insulin pen. This is a change in policy for adult inpatient areas
- All other insulins will continue to be administered with an insulin syringe from vials.

# Ordering

- The Humulin M3 Pens will be supplied by pharmacy.
- The GlucoRx Dual Safe Safety Needle
  - Top up – For wards on the RIE, SJH and WGH site these will be added to your top up book for areas that use insulin syringes. The stores team will link with you locally to negotiate stock levels
  - All other areas GlucoRx Dual-Safe Pen needles will be available to order on PECOS **SKU 304417**

<u>Item Number</u>	<u>Mfr No</u>	<u>Manufacturer</u>	<u>Supplier</u>	<u>Price</u>	<u>UOM</u>	<u>Unit Price</u>
<u>Item Description</u>			<u>GHS</u>	<u>Pack Size</u>		
<a href="#">304417</a>	GLU-SPD	ALLIANCE HEALTHCARE DISTRIBUT	National Distribution Centre		Box	
NEEDLE GLUCORX DUAL SAFE 31G 0.25MM X 4MM GLU-SPD 1 X 100					100	

# Ward insulin Guide

Guidance has been updated to reflect use of Kwik Pen for Humulin M3

## Clinical Guidance Document

### In-patient Insulin Use and Supply



The majority of patients with diabetes are treated using a small number of insulin preparations. Patients admitted as emergencies to in-patient sites may not have their usual prescribed insulin on their person.

To facilitate safe insulin use, the following advice is provided:

- Patients bringing their own supply, and who are able to administer their own insulin, should do so.
- Patients who do not bring, or who cannot administer their own insulin, should receive ward stock alternative as follows:

Duration of action and time given	Rapid 10 -15 minutes before food	Short 15 - 30 minutes before food	Intermediate Same time every day	Long Same time every day	Fixed Mixture 15 - 30 minutes before food
Patient's usual insulin	Novorapid Apidra Fiasp Humalog	Actrapid Humulin S Insuman Rapid	Insulatard Humulin I Insuman Basal	Lantus Abasaglar Tresiba	Humulin M3 Humalog Mix 25 Humalog Mix 50 Novomix 30 Insuman Comb (15,25,50)
Ward stock alternative	<b>Novorapid</b> (Vial)	<b>Actrapid</b> (Vial)	<b>Insulatard</b> (Vial)	<b>Lantus</b> (Vial)	<b>Humulin M3</b> (Kwikpen with safety pen needle)

The appropriate ward stock insulin can be prescribed and substituted on a unit-for-unit basis (except Toujeo and Xultophy – see below) with the patient's usual insulin, until this can be supplied or the patient can self administer their own insulin.

- **Toujeo:** can be changed to Lantus but the dose should be reduced by 20% to reduce the risk of hypoglycaemia, with close monitoring of blood glucose.
- **Xultophy:** administered as dose steps, e.g. one dose step will contain 1 unit of insulin Degludec and 0.036 mg of the GLP-1 Liraglutide. Patients on Xultophy can be prescribed Lantus on a one dose step to one unit basis.
- **Humalog 200 units/ml:** can be changed unit for unit to Novorapid.

#### Points to remember:

- Insulin must be prescribed by BRAND name.
- All insulin administered from a pen device is patient specific and therefore should be labelled on a patient specific basis.
- If the patient doesn't have their insulin in with them, order from pharmacy on an Individualised Patient Supply Form (IPS) or a HEPMA electronic order. Until this patient specific supply is available, follow the guidelines above.
- Labelled insulin supply can be sent home with the patient on discharge.
- In the out of hours period, when pharmacy is closed, ward-based supply can be used. Please note mixed insulin is only available as a pen formulation, therefore is held in key locations, not every ward. If a Humulin M3 pen is obtained in the out of hours period, then please affix a patient name sticker and put this in the patients pod locker. The next working day, a patient specific labelled supply of insulin **must** be obtained from pharmacy.
- Before opening, all insulin preparations should be stored in the fridge. Once open, they are stable at room temperature. All insulin should be marked with the date of first use and disposed of 4 weeks after opening.
- **When administering insulin via a pen device, a safety pen needle must be used.**
- **Under no circumstances** should insulin be drawn up into a syringe from an insulin pen device or cartridge.
- **PLEASE REMEMBER TO DISCHARGE THE PATIENT ON THEIR USUAL INSULIN IF THEY HAVE BEEN GIVEN A TEMPORARY ALTERNATIVE DURING THEIR IN-PATIENT STAY.**

Adapted with kind permission from NHS Fife.  
Authors: MRU, BGFL, KPF, MCG  
Approved by: NHS Lothian Drug and Therapeutics Committee February 2028  
Minimum review date after approval: February 2028

# GlucoRx training video

[GlucoRx Dual-Safe Pen Needles - Best Practice Training](#)

**GlocoRxTraining Video/self  
declaration paperwork and copy  
of these slides available at the  
link below**

[Resources and Links – Diabetes Professional Education](#)

Filed under title Recommended Resources

## Learning Objectives

Injection Sites & Rotations

10-Step Injection Process

Complications & Troubleshooting

Additional Considerations

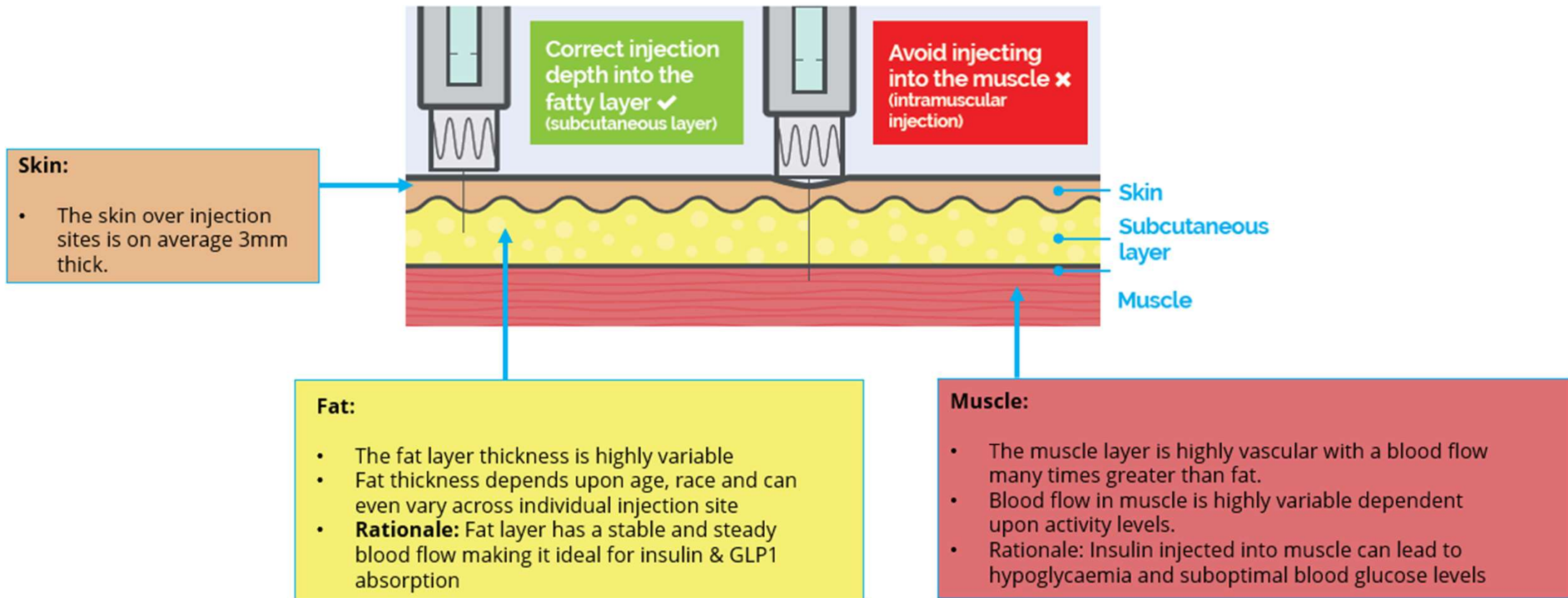
Safety Sharps



Correct Injection Technique In Diabetes Care Best Practice Guideline 2023

A practical, clear and concise document to inform evidence-based best practice in injection technique. It aims to increase knowledge and skills to improve health outcomes by optimising delivery of insulins and GLP-1 receptor agonists.

# Injection Depth - The 4mm Needle



# Lipohypertrophy

Lipohypertrophy is found in at least 2/3rds of patients who use insulin. It is thickened, rubbery fat tissue that develops in the subcutaneous layer when the insulin is injected.

## Primary causations include:

Poor rotation technique

Duration of insulin

Frequency of injections

Needle Reuse



## Lipohypertrophy

Poor injection technique and associated complications are estimated to cost the average HCO up to £30,000/year on excess insulin usage due to lipohypertrophy.



**Glycaemic variation can cause**

Hypoglycaemia

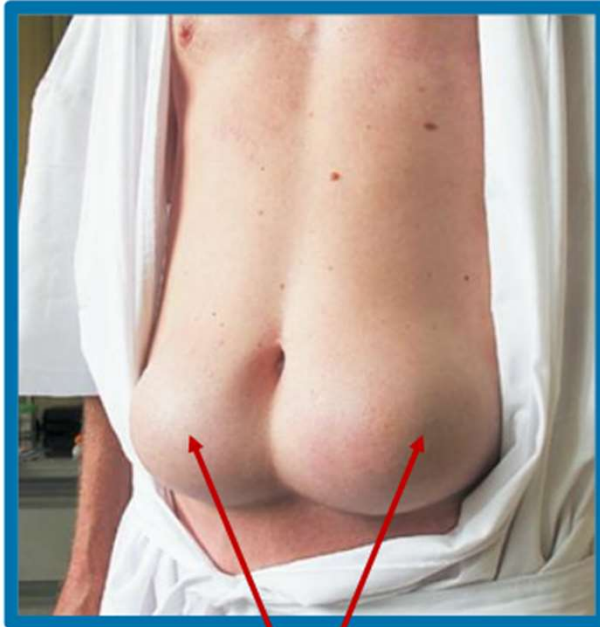
Poor HbA1c

Hyperglycaemia

Long term complications

General Malaise

*In the UK, 54% of insulin users reported having a "lipo"*



**Injecting here can cause huge glycaemic variation**

# Bleeding & Bruising

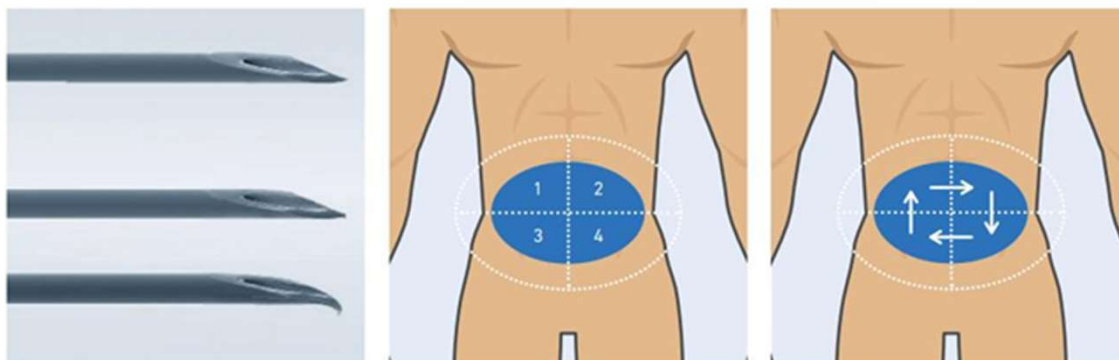
Bleeding or bruising may be a sign of poor injection technique but there is no evidence that it has any negative impact on blood glucose levels.

Use a new needle every time

Review injection technique

Correct rotation within and between sites

Apply pressure with a cotton pad after injection



# Healthcare Professional Safety

Safety products are essential in certain working environments. *Health and Safety (Sharp Instruments in Healthcare) Regulations 2013* states The employer must substitute traditional, unprotected medical sharps with a 'safer sharp' where it is reasonably practicable to do so. The term 'safer sharp' means medical sharps that incorporate features or mechanisms to prevent or minimise the risk of accidental injury.'

Working environments which this applies to include the following:

- Residential care homes
- Bank Nurses/ agency workers
- Pharmacies
- Medical staff working in prisons and schools etc
- Community nursing teams
- Secondary care setting
- Primary care setting





# GlucoRx Dual-Safe Pen Needles

Double ended automatic safety shield cover

Prevents accidental needle stick injury during injection/disposal

Skin fold technique should be used during injection

Compatible with all standard insulin pens

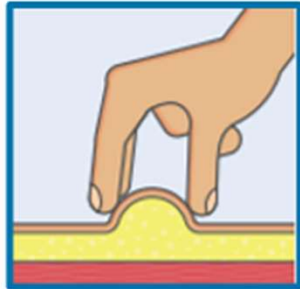


GlucorRx

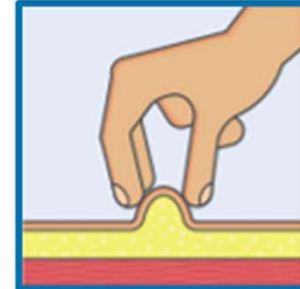
# Skin Fold Technique

Suggested for children, slimmer builds and when using safety pen needles.

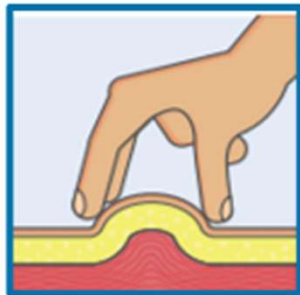
TREND ITM



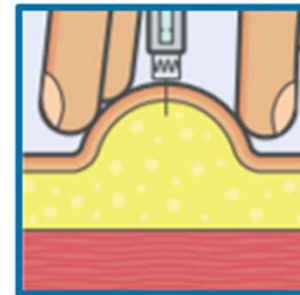
1. Raise a fold of skin between thumb and forefingers.



2. Try not to pinch the skin too tightly.



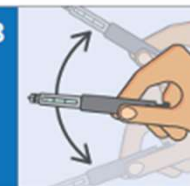




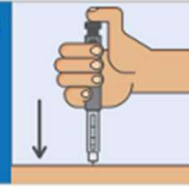




3. Do not grasp too much tissue to avoid raising the muscle.



4. Insert needle into skin at 90° angle and inject. Remove the needle whilst still holding the skin fold. Release the skin fold once needle is withdrawn.

# 10-Step Injection Process

	<p>1</p> <ul style="list-style-type: none"> <li>Wash and dry hands</li> </ul>		<p>2</p> <ul style="list-style-type: none"> <li>Remove pen cap</li> <li>Cloudy insulin - roll pen 10 times</li> </ul>		<p>3</p> <ul style="list-style-type: none"> <li>Then invert pen 10 times</li> </ul>
	<p>4</p> <ul style="list-style-type: none"> <li>Select new needle and remove paper tab</li> </ul>		<p>5</p> <ul style="list-style-type: none"> <li>Apply new needle to pen device &amp; remove outer cover</li> </ul>		<p>6</p> <ul style="list-style-type: none"> <li>Check needle patency by expelling 2 units of insulin</li> </ul>
	<p>7</p> <ul style="list-style-type: none"> <li>Dial required dose</li> </ul>		<p>8</p> <ul style="list-style-type: none"> <li>Insert needle through skin at 90°</li> <li>Inject dose fully</li> </ul>		<p>9</p> <ul style="list-style-type: none"> <li>Count to ten before withdrawing needle from skin</li> </ul>
			<p>10</p> <ul style="list-style-type: none"> <li>Remove needle and dispose safely</li> </ul>		



## GlucoRx Dual-Safe Pen Needle



**Before**



**During**



**After**

# User Guides will be distributed to clinical teams

**GlucoRx**

Quality Diabetes Care

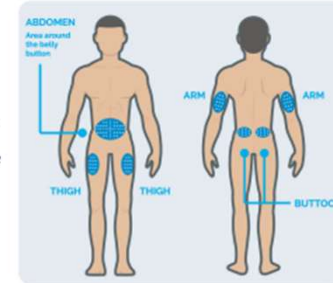
## User Guide: GlucoRx Dual-Safe Pen Needles

### Where to inject:

Always inspect your chosen injection site for any lumpy areas or bruising before you inject. Avoid injecting into bruises or fatty lumps.

### Skinfold Technique:

1. Lift a fold of skin and fat between first 2 fingers and thumb (at least 1cm between fingers and thumb).
2. Be careful not to lift up muscle layer too - using only first two fingers and thumb helps.
3. Insert needle at 90 degrees - release skinfold after needle is withdrawn.



### Technique Recommendations:



1. Ensure you have heard a **clicking sound** before administering the insulin dose.

2. If not completed successfully, the insulin could pool in the **pink capsule** and run down the side of the patient's skin when removed.

If you are unsure whether the dual-safe needle has been activated, please **check to see the red safety guard** which is only visible after the injection.



3. Ensure you are holding the insulin pen straight upright for an air shot. Continue with 2 units of dose until insulin appears at the needle tip. There is a large possibility of insulin falling back into the **pink capsule**; this is normal.

4. We would expect a small amount of insulin to be left on the patient's skin after injection as a result of the insulin stuck in the capsule after an air shot. To avoid under dosing, ensure you are pausing for 10 seconds during dose administration. The **red locking safety shield** will be visible after dosing.

### 10 Steps to giving an injection using a pen device:

1. Wash hands with warm water and soap. Dry thoroughly.
2. Remove pen cap. For cloudy insulins, roll pen 10 times between palms.
3. Gently invert the pen 10 times to achieve an even milky appearance.
4. Select a new needle. Peel off paper seal. Attach needle in line with pen.
5. (1) Push and screw the needle clockwise until it meets resistance, (2) then remove cap.
6. To ensure needle and pen are working correctly, select 2 units on dose knob. Hold pen with needle pointing upwards. Fully depress dose knob, looking for insulin to appear from needle tip. Repeat these steps until insulin is seen.
7. After the air shot has been performed, dial the required dose.
8. Fully insert needle into skin at 90 degrees, keeping pen stable. Press dose knob until dose fully injected. (Use skinfold technique).
9. Before removing the needle from the skin, count to 10 to ensure the full dose is given. (Use skinfold technique).
10. Safely remove the needle from the pen. Dispose of the needle into a sharps bin.

**GlucoRx**

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# Key Messages

- To complete priming shot
- Skin Fold Technique
- Safe disposal of used sharps in sharp bin

# Pharmacy considerations

- **Insulin Pens are strictly single patient use**
- All Insulin pens must be individually patient labelled and kept in patient locker
- Insulin pens can be sent home with patient on discharge if this is their usual insulin.
- Patients may be discharged with safety needles or non safety needles dependant on specialist nurse assessment or personal choice.

