

## Standard Operating Procedure Insulin Prescribing, Administration and Blood Glucose Monitoring

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### CHANGE RECORD

Version	Date	Change details
1	August 2015	New document
2	August 2019	To ensure the safety alert is clear regarding do not extract insulin from a pen or cartridge device and always to administer from an insulin syringe
1.0 (Changed to a SOP)	July 2021	Changes following serious incident investigation. Merged elements of G403 and elements of SOP19-039 into one overarching SOP and removed duplication. Developed a new and separate SOP for the 'Delegation of Administration of Insulin.' Removal of: <ul style="list-style-type: none"> <li>• IV insulin administration as not done in this Trust.</li> </ul> Addition of: <ul style="list-style-type: none"> <li>• Link to Patient safety alerts 2010 and 2016 updated</li> <li>• Link to Practice note 2021 on the intranet added</li> <li>• Link to the Never Events list updated</li> <li>• Link to the procurement page updated</li> <li>• Links to the new Delegation of Administration of Insulin SOP</li> <li>• Links to new competency assessment tools and workbooks</li> <li>• Clear training and competency pathway added</li> <li>• Reference and reference links updated</li> <li>• Clarity regarding types of devices and roles and responsibilities</li> </ul>
1.1	Feb 2024	Additional information added to the SOP: <ul style="list-style-type: none"> <li>• To perform a Quality Control Test for Ketone testing</li> <li>• The principles around Ketone testing</li> <li>• The values of Ketone testing</li> <li>• The appropriate response to high Ketone readings and/or potential Diabetes Ketoacidosis (DKA)</li> <li>• Recent guidance from NICE (2022) on the use of real-time continuous glucose monitors or intermittently scanned glucose monitoring</li> </ul> Approved at Physical Health and Medical Devices Group (14 February 2024).

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## 1. Introduction

This standard operating procedure (SOP) defines the standards needed when administering insulin and monitoring the patient's blood glucose.

As the needs of the population are changing, the development of a flexible workforce in health care has to occur to meet this increased need. The Trust has modernised the workforce to meet the increased demand on community services. Consequently, the administration of medicines in the community, by a suitably competent Health Care Support Worker (HCSW), will ensure the optimal use of resources to enhance patient care. The competency of the community HCSW is paramount in ensuring patient safety and is overseen by a competent trained registered nurse (RN). The trained nurse continues to maintain responsibility for the care of the patient even though they have delegated the task, of blood glucose monitoring and administering insulin to a suitably competent HCSW.

All staff administering insulin **must** be aware of the following patient safety alerts. The practice standards in these alerts are included throughout this SOP:

In 2010, the National Patient Safety Agency (NPSA), which is now part of NHS Improvement, issued a rapid response report about the safer administration of insulin. The report highlighted that errors in the administration of insulin by clinical staff are common. In certain cases, they may be severe and can cause death. The NPSA alert: safer administration of insulin 2010 NPSA has been archived however see the [Rapid Response Report NPSA](#)

Two common errors were identified:

- the inappropriate use of non-insulin (intravenous; IV) syringes, which are marked in millilitres (ml) and not in insulin units
- the use of abbreviations such as 'U' or 'IU' for units (when abbreviations were added to the intended dose, the dose was misread).

In November 2016, NHS Improvement issued a patient safety alert about the risks associated with using an insulin needle and syringe to administer insulin withdrawn directly from a pen device or replacement cartridge. [NPSA 2016/011 Risk of severe harm and death due to withdrawing insulin from pen.](#)

Also refer to the practice note [PN 2021-12 - Insulin Never Event](#).

Insulin syringes have graduations only suitable for calculating doses of 100 units/ml strength insulin. If insulin extracted from a pen or cartridge is of a higher strength, and that is not considered in determining the volume required, it can lead to a significant and potentially fatal overdose. The alert recommends that organisations should warn staff that extracting insulin from pen devices or cartridges is dangerous and should not happen. Staff, and where appropriate, patients who use pen devices, should be routinely provided with safety needles. This will ensure insulin can be given safely if a patient is not able to self-administer. It is essential that staff are trained in correctly using safety needles.

These national safety requirements led to the inclusion of overdose of insulin due to abbreviations or incorrect device as a Never Event. [2018-Never-Events-List-updated-February-2021.pdf \(england.nhs.uk\)](#)

Overdose refers to when:

- a patient is given a 10-fold or greater overdose of insulin because the words 'unit' or 'international units' are abbreviated (u or iu)
- a healthcare professional fails to use a specific insulin administration device – that is, an insulin syringe or pen is not used to measure the insulin

- a healthcare professional withdraws insulin from an insulin pen or pen refill and then administers this using a syringe and needle.

Never Events are patient safety incidents that are wholly preventable where guidance or safety recommendations that provide strong systemic protective barriers are available at a national level and have been implemented by healthcare providers.

A Never Event has the potential to cause serious patient harm or death. However, serious harm or death does not need to have happened as a result of a specific incident for that incident to be categorised as a Never Event.

Never Events are always considered serious incidents as described in the Serious Incident Framework.

The range and strengths of insulin preparations are expanding rapidly, and all healthcare staff must keep up to date to ensure safe prescribing and administration of insulin.

This SOP will define the role and responsibilities of practitioners and the importance of maintaining and updating their competency. It will support competent community HCSWs, under delegation from the RN or nursing associate, to monitor blood glucose and administer insulin.

## **2. Scope**

It applies to all Trust practitioners who undertake blood glucose monitoring, prescribing insulin or administering insulin, including medics, registered nurses (adult nurses, mental health nurses and learning disability nurses), nursing associates and community Health Care Support Workers (HCSW) band 3 and 4.

This SOP only supports the delegation of administration of insulin to a HCSW in the community services setting however it does apply to health care support workers working in non-community settings who may have responsibilities for undertaken blood glucose monitoring.

## **3. Duties and Responsibilities**

### **3.1. Managers, Team Leaders, and Clinical Leads**

Must make sure all clinical areas have adequate supplies of insulin syringes and subcutaneous safety needles, which are accessible at all times.

To ensure practitioners who are blood glucose monitoring, prescribing, and administering insulin have access to the required training, equipment and are able to demonstrate their competency.

To allocate competent RNs to be responsible for assessing the HCSW competency using the approved competency assessment tool and workbook available on the clinical competency intranet page.

### **3.2. Independent Prescribers**

The range and strengths of insulin preparations are expanding rapidly, and all healthcare staff must keep up to date to ensure safe prescribing of insulin. Prescribers need to be aware that high strength insulins are a “high risk” medication and should only be initially prescribed by an endocrinologist or a practitioner who is a diabetic specialist, i.e., diabetic specialist nurse within the acute setting/community setting. It is the responsibility of all prescribers who prescribe insulin to maintain their competence in diabetes and prescribing of insulin. It is expected that the prescriber will have completed specific training in prescribing for diabetes and can evidence this.

When prescribing insulin the term “units” will be used in all contexts and abbreviations such as “U” or “IU” will **never** be used (NPSA/2010/RRR013). If the patient has an overdose of Insulin due to abbreviations being used this is viewed as a “never event.” [2018-Never-Events-List-updated-February-2021 \(england.nhs.uk\)](https://www.england.nhs.uk/2018/never-events-list-updated-february-2021/)

### 3.3. Registered Nurse (RN) (including adult nurses, mental health nurses and learning disability nurses) and with routine patients nursing associates

Overall responsibility for blood glucose monitoring and the administration of insulin, with the individual patient, remains either with the RN however nursing associate (NA) in line with the NMC Code and having undertaken specific training and competency assessment are able to administer insulin using a pen device.

RNs and NA are responsible for ensuring that they keep updated and maintain their competency to undertake the procedures. They will have completed specific training in diabetes as outlined in the training section and can evidence clinical competency having completed the approved competency assessment tool and workbook available on the clinical competency intranet page.

Both patient safety alerts (2010, 2016) as outlined in the introduction of this SOP must be applied by the RN and nursing associate and ensure they are also applied by any HCSW that has been delegated the task of administration of insulin.

Insulin must NEVER be withdrawn from a pen devices or cartridge.

Only RNs can administer insulin using a vial and insulin syringe in exceptional circumstances.

It is the responsibility of the RN to ensure a risk assessment has been completed for each patient were the responsibility for administration of insulin is to be delegated to a community HCSW. Nursing Associates will not delegate this task to HCSWs.

When a RN delegates the task to the community Health Care Support Worker (HCSW), it is the RNs responsibility to ensure that the HCSW is competent to undertake the procedure safely with each individual patient.

If a HCSW is monitoring blood glucose levels and administering the patient’s insulin, the RN will review the patient and their diabetes weekly as a minimum or when there is a change in clinical presentation.

If the HCSW reports any concerns or the medicine administration record MAR is changed, the nurse must review the patient before the next dose of insulin.

It is the responsibility of the RN or nursing associate to work within the standards as detailed in this standard operating procedure and the [Delegation of Administration of Insulin SOP](#).

### 3.4. Community Health Care Support Workers (HCSW)

The community HCSW can monitor blood glucose and administer insulin when they have completed the required training AND competency assessment as outlined in the training section of this SOP and having completed the approved competency assessment available on the clinical competency intranet page.

The HCSW must **never** administer insulin using a vial and insulin syringe.

The HCSW must **never** withdraw insulin from a pen devices or cartridge.

The HCSW must **never** administer insulin using a reusable cartridge pen device

The HCSW can only give insulin with a disposable prefilled insulin pen and safety needle, and it is written in the HCSW job description that they may be required to undertake the task of injections.

It is the HCSW responsibility to ensure that they maintain their competency to undertake the task of blood glucose monitoring and the administration of insulin. It is the HCSW responsibility to report any limitations to the RN or nursing associate and refrain from practice immediately if they feel unable to perform the procedure.

It is the HCSW responsibility to relate any concerns about the patient or the procedure to the RN or nursing associate immediately.

It is the responsibility of the HCSW to work within the standards as outlined in the [Delegation of Administration of Insulin SOP](#) when undertaking the delegated task of administration of insulin.

### **3.5. Health Care Support Workers (non-community services)**

HCSW in other clinical areas may, as part of their role, undertake blood glucose monitoring however they will need to have undertaken the Blood Glucose Monitoring competency assessment following a period of supervised practice (link to be added when the document is available).

HCSW in other clinical areas are not permitted to administer insulin.

### **3.6. Humber Teaching NHS Foundation Trust Diabetes Specialist Nurses**

The Diabetes Specialist Nurse (DSN) is responsible for giving expert diabetes advice and support. The RN, nursing associate or Doctor should seek advice from the DSN, and any agreed plan or advice must be documented in the patient's record.

The Lead Diabetes Specialist Nurse will be responsible for reviewing and updating the content of the training and competency assessment ensuring best practice guidance and governance procedures are followed.

## **4. Procedures**

### **4.1. Delegation of Administration of Insulin to a Health Care Support Worker**

Before the task of administration of insulin is delegated to a non-registered practitioner the Registered Nurse **must** follow the standards outlined in the [Delegation of Administration of Insulin SOP](#) ensuring the HCSW has undertaken to required training, live supervision, and competency assessment and that a patient specific delegation of administration of insulin risk assessment has been completed.

### **4.2. Administration and Documentation**

On our inpatient units/wards the insulin prescription will be written on an inpatient prescription chart (either electronic or paper).

Following discharge from the acute hospital into community services the patient will be discharged with a seven-day EPMA (electronic prescribing medication administration) chart. This must be changed to a community insulin authorisation and administration record within seven days.

When prescribing insulin, the term "units" will be used in all contexts. Abbreviations, such as "U" or "IU," must never be used (NPSA/2010/RRR013). The prescriber must rewrite the dose in full before it can be administered.

The blood glucose level will be taken before administering the insulin and documented on the blood glucose monitoring chart on inpatient wards or community insulin MAR chart for patients in the community.

The blood glucose range for each patient should be recorded in the patients care plan or on the insulin chart. Consideration should be given regarding the blood glucose level before administering the insulin and any concerns should be discussed immediately with the nurse in charge, prescriber, or diabetes specialist nurse. The advice must be documented in the patient record.

The inpatient MAR chart or community Insulin authorisation and administration record will be checked before administering the insulin and completed after administering the insulin.

Insulin is most commonly injected into the subcutaneous tissue that lies underneath the skin using a needle that is long enough to penetrate the skin but short enough that it does not go through the fat and enter the muscles underneath it. Consider which site is most appropriate for injecting. There are four sites that are most commonly used: the abdomen, thighs, arms and buttock.

Insulin should be, where possible, administered using a pre-filled insulin pen device. Only Registered Nurses can withdraw insulin from an insulin vial and administer using an insulin syringe.

Practitioners must not administer using an insulin pen with cartridges as once the cartridge is inserted into the device the medication, dose and expiry date cannot be checked.

Staff must never extract insulin directly from pen devices or refill cartridges.

#### **4.3. Self-administration of insulin on an inpatient ward**

In inpatient settings it needs to be considered, if the patient is well enough, that they will be able to monitor their own blood glucose and give their own insulin, this should be undertaken within the remit of the Trust's Self-Administration Procedure (SAM). It is especially important to ensure the patient is able to understand and undertake the whole process if they are monitoring blood glucose and self-administering their insulin. Specialist support and advice may be obtained from the patient's diabetes specialist team.

#### **4.4. Equipment**

##### **4.4.1. Blood Glucose Monitoring Device**

All staff undertaking this procedure will use a Blood Glucose Meter agreed by the physical health and medical devices group available from the standardised medical products guide. See [Procurement Team](#).

All kits come with a comprehensive instruction book which is to be followed. These are to be used in conjunction with the disposable test strips and single use lancets for obtaining the blood droplet.

All machines must be calibrated depending on the frequency of use, using the appropriate quality control solutions and results recorded in the logbook. Quality checks need to be completed daily.

All machines must be asset registered and subject to the manufacturers recommended maintenance schedule

All machines can test the patient's capillary blood sample for ketones, this is essential when a patient may be prone to ketones or developing Diabetes Ketoacidosis (DKA).

The machines need to be quality controlled prior to use, to ensure they are accurate providing a true reading of the ketone levels.

The kits are all supplied with a small white plastic strip with a "on" and "off" switch. This needs to be used to complete the quality check. Do not throw this away as it can be used multiple times. Refer to the instruction link below:

[GlucoRx-HCT-Ketone-Strip-Manual.pdf](#)

Blood glucose target levels are recorded on the patient's drug chart and care plan. For ketone testing see chart below:

Ketone Reading	Interpretation
Below 0.6 mmol/L	Normal blood ketone level.
Between 0.6 and 1.5 mmol/L	More ketones are being produced than normal; contact your Diabetes healthcare team for advice.
Above 1.5mmol/L	Risk of Diabetic ketoacidosis; call your Diabetes healthcare team immediately.

Reference: adapted from information provided in The Balance Guide to Meds & Kit, 2011 - 2012, p15

**Any out-of-range results should be escalated to the appropriate registered nurse or practitioner.**

To understand more around ketones please follow this link:

[What are ketones? | Ketones in diet | Diabetes UK](#)

Understanding the readings on your meter:

[www.nhs.uk/conditions/diabetic-ketoacidosis/](http://www.nhs.uk/conditions/diabetic-ketoacidosis/)

#### 4.4.2. Continuous Glucose Monitors and Intermittently Scanned Glucose Monitors

Recent guidance from NICE has recommended the use of real-time continuous glucose monitors or intermittently scanned glucose monitoring ('flash') for adults and children living with type 2 diabetes and has extended the use of 'flash' glucose monitoring to certain adults with type 2 diabetes on insulin therapy if any of the following apply:

- They have recurrent hypoglycaemia or severe hypoglycaemia
  - They have impaired hypoglycaemia awareness
  - They have a condition or disability (including learning disability or cognitive impairment) that means they cannot self-monitor their blood glucose by capillary blood glucose monitoring but could use a continuous glucose monitoring device (or have it scanned for them)
  - They would otherwise be advised to self-measure at least 8 times a day
  - They require help from a care worker or healthcare professional to monitor glucose levels.
- NICE (2022)

A separate standard operating procedure is currently under development to support the implementation of the use of Continuous Glucose Monitors and Intermittently Scanned Glucose Monitors within Humber Teaching NHS Foundation Trust.

#### 4.4.3. Injection Devices

Only RNs are to administer insulin using a vial and insulin syringe, although the preferred device is a disposable prefilled insulin pen. Practitioners should not administer insulin from a cartridge.

Community HCSW must only administer insulin using a disposable prefilled insulin pen.

#### 4.4.4. Disposable Pre-filled Insulin Pen

To minimise the risk to patients and practitioners a disposable prefilled insulin pen and needle should be used. There are several devices available, and the majority of insulin brands are available for use in a pen device. If a patient is discharged from hospital with a vial and insulin syringes this must be switched to a pre-filled pen device at the earliest opportunity.

#### 4.5. Waste Disposal

All practitioners will dispose of waste appropriately following the Trust's [Safe and Secure Handling of Medicine Procedures](#).



#### 4.6. Advanced Preparation of Insulin Syringes for Adult Patients to Administer at Home

Most patient prescribed insulin for the management of their diabetes usually self-administers their insulin or the insulin is administered by a health care professional. However, there remain a small number of people who will not or cannot use an insulin pen for a variety of reasons: poor manual dexterity; visual impairment; an inability to find a pen device that suits their needs (Rosindale, 2014). As a result, these patients will be unable to autonomously inject once or twice a day and consequently, will require nursing support to pre-load the insulin syringes they use in order to maintain their independence.

It is viewed that the practice of pre-loading insulin syringes is necessary for a small minority of patients unable to use insulin pen devices and should only be considered when all other options to enable patients to self- manage have been exhausted (RCN 2015). The Pre-loading of insulin syringes should only be undertaken by the registered nurses; this activity cannot be devolved down to health care assistants. (RCN 2021 Advance Preparation for Adult Patients to administer at home)

The prescriber and the patients GP (if different) must agree to the prescribing of pre-loaded insulin and prescribe the insulin on the pre-loading section of the MAR chart.

Arrangements must be made to ensure that the monitoring of the diabetes is undertaken. Capillary blood glucose monitoring may be undertaken by the patient, carer, or health professional. Lantus (insulin Glargine) is unsuitable for use in pre-loaded syringes as it will become turbid (cloudy). If the pre-loaded syringe contains Isophane insulin or is a cloudy insulin, the syringe should be gently rotated back and forth between the hands at least 20 times until the insulin is uniformly suspended before injection. This also warms the injection which is important because injecting cold insulin can be painful and is less effectively absorbed. The patient should be deemed competent by the RN to complete the process.

It will be agreed that the patient who is to have pre-loaded insulin has capacity to understand and ability to self- administer the insulin. The Clinical Lead/Community Matron will be responsible for authorising that the patient can have pre-loaded insulin syringe. The risk assessment (Appendix 1a) and care plan (Appendix 1b) of pre-loading insulin pens will have been undertaken, and again agreed with the Clinical Lead/Community Matron. The diabetic specialist nurse and pharmacy should be consulted to agree the patient is suitable.

The preparation of pre-loaded syringes represents a form of secondary dispensing. The patient has the legal right to expect that the dispensing will be carried out with the same reasonable skill and care that would be expected from a pharmacist.

The pre-loaded syringe can be stored in the fridge for a maximum of seven days. The pre-loaded syringe/pen should be stored in the main part of the fridge at between 2-8 degrees centigrade. They will be stored in a sealable container and both syringe and container will be clearly labelled. Trust Pharmacy must be contacted to ensure labelling is correct. If the patient is required to administer more than once a day, there should be a separate container for each administration time even if the doses are the same. The needle should point upwards in mixtures containing Isophane insulin to prevent blockage of suspended substances in the insulin.

The patient will be reviewed; if there are any changes in the patient's presentation, they wish to discontinue self-administration and/or at a maximum three-monthly. The review will include an assessment of blood sugar levels over the last three months with the use of glycated haemoglobin (HbA1c) blood test. In addition, review how the patient/carer feels they are managing and, any difficulties they are experiencing

## 5. Training and Competency

All practitioners administering insulin and monitoring blood glucose and ketone levels must have diabetes training and competency in the procedure.

### Independent Prescribers

It is expected all independent prescribers will maintain their competencies by attending appropriate refresher training; this may include using training such as e-learning. However, more specialist competency with regards to the condition and prescribing may be required.

### Registered Nurses:

Element	Method/frequency
Proven competence with blood glucose/ ketone monitoring	Assessment within workplace as per the competency assessment tool
Infection control training and hand hygiene	As per local policy and statutory/mandatory training requirements
Basic life support and anaphylaxis training	Annually
338: Insulin Safety Training (Insulin Safety: Getting it right)	Two-yearly update via ESR (As per the RCN 2021 guidance)
View Safety Alert on insulin pens including video:	Once only as part of the initial training and competency assessment. <a href="#">View online.</a>
Practical assessments with mentor	Live supervision with mentor. Minimum of 5 assessments as per the 'Record of practical assessment' form.
Final assessment and sign off	By mentor, then ongoing support and supervision within practice

### Health Care Support Workers:

Element	Method/frequency
Proven competence with blood glucose/ ketone monitoring	Assessment within workplace as per the competency assessment tool
Infection control training and hand hygiene	As per local policy and statutory/mandatory training requirements
Basic life support and anaphylaxis training	Annually
'Delegated Administration of Insulin'	Two-yearly via ESR
View Safety Alert on insulin pens including video:	Once only as part of the initial training and competency assessment. <a href="#">View online.</a>
Practical assessments with mentor	Live supervision with mentor. Minimum of 5 assessments as per the 'Record of practical assessment' form.
Final assessment and sign off	By mentor, then ongoing support and supervision within practice

## 6. Key Guidance

NICE Key therapeutic topic 2017 [Safer insulin prescribing \(nice.org.uk\)](https://www.nice.org.uk)  
NICE Guidelines [Overview | Type 2 diabetes in adults: management | Guidance | NICE](#)  
NICE Quality Standard [Diabetes in adults \(nice.org.uk\)](https://www.nice.org.uk)  
[NMC Code](#)  
[Delegation and accountability supplementary information to the NMC code](#)  
[Delegation of Insulin Administration: Diabetes UK](#)

## 7. Patient Safety Alerts and Never Events

[Rapid Response Report NPSA/2009/RRR005: \(sps.nhs.uk\)](https://www.sps.nhs.uk)  
[Patient Safety Alert: Withdrawing insulin from pen devices](#)  
[NHS England: Never Events](#)

## 8. Related policies/procedures

[Delegation of Administration of Insulin Standard Operating Procedure](#)  
[Safe and Secure Handling of Medicines Procedures](#)

## 9. References

Diabetes Care in The UK. UK Injection and Infusion Technique Recommendations 5th edition December 2020 accessed on 04/08/2021 [Forum for injection techniques recommendations 5th Edition 2020](#)

National Institute for Health and Care Excellence (2022) Type 2 diabetes in adults: management (NG28) [Recommendations | Type 2 diabetes in adults: management | Guidance | NICE](#)

Rosindale, S (2014) Preloading of insulin syringes for people with diabetes to administer at home: new solution to an old practice Diabetes in primary care 16 (3) pp137-142

Royal College of Nursing Advanced Preparation of Insulin Syringes for Adult Patients to Administer at Home Guidance for nurses Fourth Edition January 2021 accessed on 04/08/21 [Advanced preparation insulin syringes | Royal College of Nursing \(rcn.org.uk\)](#)

## Appendix 1a: Risk Assessment for the Pre-Loading of Insulin Syringe for Patient Self Administration in the Community

The nurse completing the risk assessment should be able to answer YES to all the questions below:

1. Have all alternative methods of treatment been considered?
2. Does the patient/carer want to administer the pre-loaded pen of insulin?
3. Is the patient/carer able to demonstrate an understanding of their diabetes, and has consistent capacity and physical ability to undertake the task safely, administering the right dose, at the right time, adopting the correct technique?
4. Is the patient able to demonstrate the safe attachment, and removal of the needle to the pen, or has access to a carer who is competent to do this for the patient?
5. Is the patient/carer able to demonstrate safe disposal of sharps as per Humber Teaching NHS Foundation Trust's Safe and Secure Handling of Medicine Policy?
6. Is the appropriate device in the patient's home to enable safe removal of the needle after administering insulin?
7. Is the patient able to monitor their own blood sugar levels? Or are arrangements in place for this to be done for them?
8. Is the patient/carer able to recognise symptoms such as hypoglycaemia or hyperglycaemia and take appropriate action if required?
9. Is the patient/carer aware that he/she is sharing responsibility for their actions, in relation to the self-administration of insulin, and can withdraw their agreement/consent at any time?
10. Is there safe storage of the pre-loaded syringe? i.e. The fridge is clean and working effectively. The storage facility is not going to be accessed by other vulnerable people such as children, other residents.
11. Does the patient/carer have relevant contact details for advice and support if required, especially for urgent situations?
12. Has the patient/carer been observed three times self-administering the pre-loaded dose insulin and disposal of needles?
13. Is the nurse confident of the patient's or carer's competency with the procedure?

If it is **YES** to each of the questions above proceed with agreement signed below

If it is **NO** to any questions above **do not proceed**

Patient	Carer (If applicable)	Registered Nurse	Community Matron/Clinical Lead	GP/Prescriber
Signature date	Signature date	Signature date	Signature date	Signature date

## Appendix 1b: Plan of Care for the Pre-Loading an Insulin Syringe for Patient Self Administration in the Community

The patient prescribed insulin for the management of their diabetes usually self-administers the insulin, or it is administered by a health professional. However, in exceptional circumstances the patient's needs may not be met by East Riding Neighbourhood Care Service (ERNCS), and alternative resources need to be considered. Each case will be agreed with the clinical lead/community matron and GP. The risk assessment and care plan of pre-loading insulin syringe will have been undertaken, and again agreed with the clinical lead/community matron in consultation with the diabetic specialist nurse and pharmacy.

The nurse will:

- a) Explain the pre-loading of insulin syringe to the patient and gain informed agreement/ consent.
- b) Ensure the patient is competent to self-administer the insulin syringe.
- c) Prepare equipment ensure the fridge is clean and suitable for pre-loaded syringes to be left (do not put in freezer compartment). Do not prepare more than seven days.
- d) Ensure that each new vial that is used should have the date, time and initials annotated. If it has been more than 28 days, it should be discarded.
- e) Prepare the preloaded insulin syringe and container labels against the patients prescription. These include, patients name, name, and dose of insulin (in units), the time the insulin injection should be administered such as 30 minutes before their evening meal, date and time of preparation, initials of nurse who prepared the injections and how many injections were prepared.
- f) Draw up the appropriate dose of insulin.
- g) Store the pre-loaded insulin syringes in an appropriate storage container in the fridge. The needle should point upwards at an angle of 45° in mixtures containing isophane insulin to prevent blockage of suspended substances in the insulin.
- h) Ensure relevant equipment is available so the syringe and needles can be disposed of within Trust Clinical Waste Policy.
- i) Document in nursing notes, and sign patient's pre-loaded insulin on the Insulin Authorisation and Administration Record.
- j) Remind the patient/carer to check blood sugar level and record prior to administration.
- k) Ensure patient/carer is aware of contact details if urgent support is required.
- l) Ensure the plan of care continues to meet the needs of the patient.
- m) Report any concerns to the nurse in charge, clinical lead/community matron or GP as required and document.
- n) The patient will be reviewed; if there are any changes in the patient's presentation if they wish to discontinue self-administration or three-monthly. The review will include an assessment of blood sugar levels over the last three months with the use of glycated haemoglobin (HbA1c) blood test. In addition, how the patient/carer feels they are managing and, any difficulties they are experiencing.