1929 Version 2

The Administration of Insulin to patients at home and in Community Hospitals

Date: 26 January 2017

Partners in Care

Document Ratification

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Document title:	Policy for Insulin administration by Community Registered Nurses, and Skilled Not Registered (SNR) staff to patients at home		
Purpose of document:	Provide guidance on insulin adminstration		
Date of issue:	26 January 2017	**Next review date:**	26 January 2020
Version:	2	**Last review date:**	1 November 2014
Author:	Associate Director of Nursing Clinical Director of Pharmacy		
Directorate:	Community		
Committee(s) approving the document:	Care and Clinical Policies Group Paul Foster, Clinical Director of Pharmacy		
Date approved:	16 November 2016		
Links or overlaps with other policies:	Standard Operating Procedure for Insulin Administration		
	Preloading insulin syringes for patients to administer at home		
	Health and Safety (Sharps Instruments in Healthcare) Regulations 2013		
	0324 Needlestick,Sharps and Blood/Body fluid contamination procedures for Community Healthcare staff and patients		
	Standard operating Procedure: Waste Management of medicines & other Pharmaceutical products in Community Hosptials & Community Clinics within Torbay & Southern Devon		
	1927 - Medicines Policy for Registered Professional		
	1928 - Medicines policies for Skilled Not Registered Staff		
	0684 - Non-Medical Prescribing Policy		
	1716 - Accountability, Delegation and Supervision, of Activities to Skilled Not Registered Staff		
	2061 - Patient Specific Insulin Administration skills template		
	1849 - Choice and Control Risk Enablement Policy		
	Skills for Health/DH National Minimum Training Standards for healthcare Support Workers and Adult Social Care Workers in England		
	Skills for Health/DOH Code of Conduct for Healthcare Support Workers and Adult Social Care Workers in England		
	1803 - Guideline for Clinical Competence in Registered Nurses		

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Document Amendment History

Date	Version no.	Amendment summary	Ratified
1 November 2014	1	New	Diabetes Nurse Specialist
26 January 2017	2	Revised	Care and Clinical Policies Group Clinical Director of Pharmacy
19 February 2018	2	Review date extended from 2 years to 3 years	

Contents

1 Introduction

1.1 This policy relates to Registered Nurses (RN's) and Skilled Non-Registered staff (SNR's), who may need to administer insulin for patients unable to prepare or administer it independently.

1.2 This policy provides the information, advice and guidance for RN's and SNR's administering insulin by sub-cutaneous injection to reduce the risk of error in medicines administration (National Patient Safety Agency (NPSA) 2010) and needle-stick injury (EU Directive 2010/32).

1.3 The guidance seeks to promote safe practice in the use of insulin pen devices commawhich can be used when the traditional method of insulin syringe, and vial, is not available or appropriate.

1.4 The guidance also seeks to promote safe practice in the disposal of syringes and pen needles.

1.5 Diabetes Mellitus is a chronic condition. Patients may require long term medication to control blood glucose levels and reduce the risk of associated complications. For some patients the prescribed treatment is regular insulin injections.

1.6 It is recommended that, **wherever possible, insulin must be administered using an insulin safety syringe and vial (appendix 2).** In the event that the insulin prescribed is not available in a vial (see appendix 3 for list of available insulin's and devices) the RN must ensure they are proficient in the use of the relevant pre-filled/disposable insulin pen and are aware of the BD Autoshield™ Duo Safety Insulin Pen Needles which are available to avoid needle-stick injury (appendix 4).

2 Statement/Objective

2.1 To promote the safe administration of insulin to patients with diabetes who need their treatment administered by RN's or SNR's employed by Torbay and South Devon NHS Foundation Trust (TSDFT).

2.2 To reduce the risk of needle-stick injury to nursing staff and promote safe disposal of clinical waste.

2.3 To include all aspects of insulin administration except the clinical policy 'pre-loading of insulin syringes for patients to administer at home'.

2.4 To ensure that current practice is in line with the latest EU Directive 2010/32 and health and safety executive guidance on the reducing sharps injuries

2.5 To ensure that current practice is in line with NHS England and NPSA guidance in reducing insulin insulin administration errors.

3 Roles & Responsibilities

3.1 This policy covers all RN's and SNR's employed by TSDFT who are required to medicate patients with insulin treated diabetes mellitus within their own home, or community hospital setting

3.2 It relates specifically to those patients who are unable to independently and safely administer the correct dose of insulin at the correct time in the correct way.

3.3 It is the responsibility of every RN and SNR employed by TSDFT, who are required to treat patients with diabetes mellitus and insulin, to be familiar with this policy and procedure.

3.4 NHS England & NPSA recommend that any RN & SNR expected to prescribe, administer or handle insulin must complete a training programme (NPSA 2010).

TSDFT state that it is **mandatory for any RN or SNR expected to prescribe, administer or handle insulin** to complete the e-learning module 'Safe Use of Insulin' with a minimum pass mark of 80% (refer to section 5.1). This module should be repeated every 2 years to to demonstrate on-going competence.

3.5 RN's and SNR's are responsible for recognising any limitations in their knowledge and competence. They may decline any duties that they do not feel able to perform in a skilled and safe manner (NMC 2008).

3.6 Delegation from RN to SNR can only be undertaken after training and competence assessment in practice.

3.7 Patients must be allowed to decide whether they will agree to treatment in this way and this should be documented in the patient case notes.

4 Administration of Insulin and Health & Safety (Sharps Instruments in Healthcare) Regulations 2013

4.1 Insulin should be prescribed on an 'Insulin Prescription & Medication Administration Record (PMAR) for use in the community setting'.See Appendix 1. This document is also available on i-care under 'forms'.

4.2 The Insulin PMAR should clearly state the prescribed Insulin, dose and time with the prescribers signature.

4.3 If there is a need to change either the insulin or the dose,then the prescribing line must be completely struck through, initialled and dated. The insulin and doses should be then completely re-written on the prescription line below. There is opportunity to make

up to 5 prescribing changes on each PMAR (see appendix 1 for example) before a completely new PMAR should be re-issued.

4.4 The RN or SNR must check the Insulin PMAR before she administers the insulin to check when the insulin was last administered.

4.5 Once the insulin has been administered the date, time, dose, injection site, insulin batch number and expiry date must be recorded and signed for by the RN or SNR.

4.6 **If the patient is unable to self inject the** Standard Operating Procedure for insulin administration is available in appendix 2.

4.7 The first line option for insulin administration should be Magellan™ Insulin Safety Syringe and a vial of the prescribed insulin (appendix 3 & 4).

4.8 If the prescribed insulin is not available in a 10ml vial (see appendix 3) then the prescribed insulin can be administered using a pre-loaded pen and BD Autoshield Duo™ pen needle with automatic protective shield (see appendix 5). The BD AutoShield™ Duo is a second generation safety pen needle. The product contains two shields at both the patient and non-patient ends of the pen needle. Both shields will automatically lock after the injection to prevent accidental needle stick injuries on both sides of the needle. They are available on prescription and have Joint Formulary approval.

4.9 To positively identify the insulin; only vials and preloaded insulin pen devices should be prescribed. 3ml cartridges of insulin that are used with re-usable cartridge pen devices are not to be used.

4.10 Nurses are also not allowed to draw out insulin from a 3ml cartridge into an insulin syringe as this changes the pressure inside the cartridge and can then increase the risk of fracture or break in the glass cartridge resulting in injury. This would also create an unlicensed product.

4.11 **If the patient is being educated and learning to become independent** in self administration of insulin then a pre-loaded pen will continue to be the best option.

In this case, the patient will be using ordinary pen needles and should be renewing them independently of the nurse. The nurse's role will be to ***verbally*** guide the patient in insulin injection technique, encouraging the patients' confidence to grow until the patient reaches a stage where they are happy to be independent in the process. The nurse should not be putting the needles on the pen or removing them. If the patient is unable to complete these steps then the whole process should be reviewed. The Community Diabetes Specialist Nurses are available (07500 127086 or 07769305452) for clinical advice and guidance if the patient is experiencing problems.

4.12 A yellow lidded sharps container should be readily available and situated near the patient as possible to the patient for disposal of insulin safety syringes or insulin pen needles. These can be ordered from the patient's local council

Torbay Council http://www.torbay.gov.uk/recycling/clinical-collections/
Teignbridge Council www.teignbridge.gov.uk/index.aspx?ArticleID=2491
South Hams Council http://southhams.gov.uk/article/632/Recycling--Waste West Devon - www.westdevon.gov.uk/article/2473/Clinical-waste
(all links accessed 4/11/16)

4.13 The councils will deliver and pick up full bins from the patient's home at no charge to the patient.

4.14 Needles should never re-sheathed or recapped

4.15 Needles should not be broken or bent before use or disposal

4.16 Needle clipping by staff or using separate needle removers should not be used.

5 Training

5.1 All RN's, SNR's who are involved with insulin administration **must** complete the e-learning module entitled 'Safe Use of insulin' with a pass mark of 80%. The module should be repeated and passed at the same level every 2 years.

5.2 If a nurse fails the exam she can resit the exam as soon as possible or at the same sitting. If the nurse fails after the second attempt they should complete further studies and resit within one month of the last failed attempt. If failure occurs after the 3rd attempt then the nurse should be suspended from insulin administration immediately. The community Diabetes Specialist Nurse team should be contacted by the line manager to offer 121 education and support to the nurse concerned.

5.3 Community Nurse Team Leads and Community Hospital Matrons/Deputy will be responsible for identifying and ensuring that all RN's and SNR's who are involved with prescribing, administering or handling insulin complete the training requirements in 5.1 & 5.2

5.4 If staff members are not compliant with 'safe use of insulin' training it is the responsibility of their line Manager to ensure this is addressed in a timely manner and where necessary in accordance with Trust HR policy processes.

5.5 All SNR's must have attended QCF Level 3 medicines management module, or Community Medicines Management training, or to have attended a 2 day course on Medicine Awareness at the Horizon Centre, Torbay Hospital.

5.6 All Registered Community Nurses, who are delegating the task of patient specific administering of insulin to SNR's, must have attended Delegation and Accountability Training.

5.7 TSDFT assessment documents for Patient Specific Insulin Administration and Capillary Blood Glucose (CBG) monitoring must be used to assess the competence of the SNR. This is required when following the delegation process in line with the Trust policy 'Accountability, Delegation and Supervision of activities to SNR's'.

5.8 On-going support for patients and carers must be provided by RN's, including helpline phone contacts, CBG target levels and the method of reporting any abnormal CBG results or insulin administration problems.

5.9 Once the SNR has achieved the required competencies they must be re- assessed on a 4 monthly basis, as a minimum, and by a RN

6. Monitoring, Auditing, Reviewing & Evaluation

6.1 The Policy will be reviewed in 2 years.

7. References

7.1 Safer Adminstration of Insulin - a Rapid Response Report from National Patient Safety Agency (NPSA). NPSA/2010/RRR013

7.2 2010/32/EU Sharps safety Directive for Implementation
www.hse.gov.uk/healthservices/needlesticks/eu-directive.htm
(last accessed 4/11/16)
The Forum for Injection technique (FIT) Diabetes care in the UK - UK Injection technique Recommendations 3rd edition 2015
http://www.fit4diabetes.com/files/6714/4293/6325/FIT_Injection_Technique_Recommendations_3rd_Edition_lo_res.pdf (last accessed 4/11/16)

7.3 FIT4safety Injection safety in UK and Ireland – safety of sharps in Diabetes recommendations 1st edition 2012
http://www.fit4diabetes.com/files/1413/4727/6994/BD4224_FIT_Safety_STG07AW2_PP.pdf (last accessed 4/11/16)

7.4 Nursing & Midwifery Council The Code: Professional Standards of practice and behaviour for nurses and midwives. London. 2015

8. Appendices

Appendix 1 – Insulin Prescription and Medication administration record for use in the Community Setting
Appendix 2 – Standard Operating Procedure
Appendix 3 – Using Megellan Insulin Safety Syringes
Appendix 4 – Current availability of Insulin Vials & Pre-filled Insulin Pen Devices
Appendix 5 – Using the BD Autoshield Duo with a pre-filled Insulin Pen

Appendix 1

INSULIN PRESCRIPTION AND MEDICATION ADMINISTRATION RECORD FOR USE IN THE COMMUNITY SETTING

Community Nurse Team: ..*Anytown*.....

Patient Name: *Perfect Patient*	**Date of Birth:** *01/01/01*	**NHS Number:***999 999 9999*

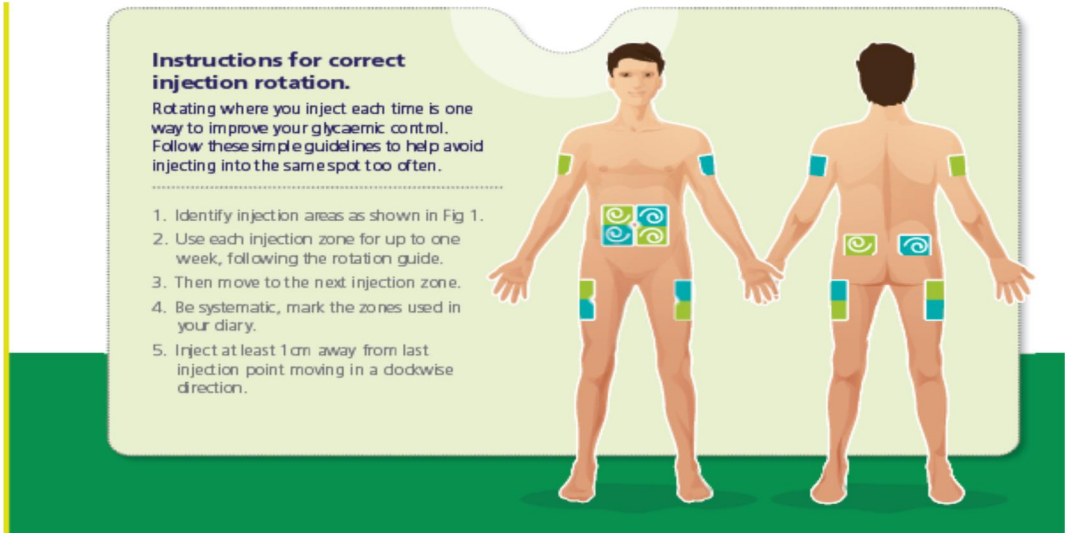
Allergies/Sensitivities: *Flucloxacillin*	**Weight:** *94 kg*	**Blood Glucose (BG) Aim range(mmol/L)** *10 – 20 mmol/l*

Patient's GP Practice: *Dr F Banting, Kildare House, Anytown*

PRESCRIPTION

Insulin		**Insulin Dose / Dose Range (units)**				**Prescriber signature**	**Date**
Full Product Name	**Device**	**Breakfast**	**Lunch**	**Evening meal**	**Bed**		
~~*Humulin I*~~	~~*Vial & Syringe*~~	~~*22*~~ **units**	units	~~*14*~~ units	units	~~*F Banting*~~	~~*15/10/2014*~~ *changed by FB on 31/10/2014*
Humulin I	*Vial & syringe*	*26* units	units	*14* units	units	*F Banting*	*31/10/2014*
		units	units	units	units		
		units	units	units	units		
		units	units	units	units		

Sites and Rotation (diagram included courtesy of BD Medical – Diabetes Care)



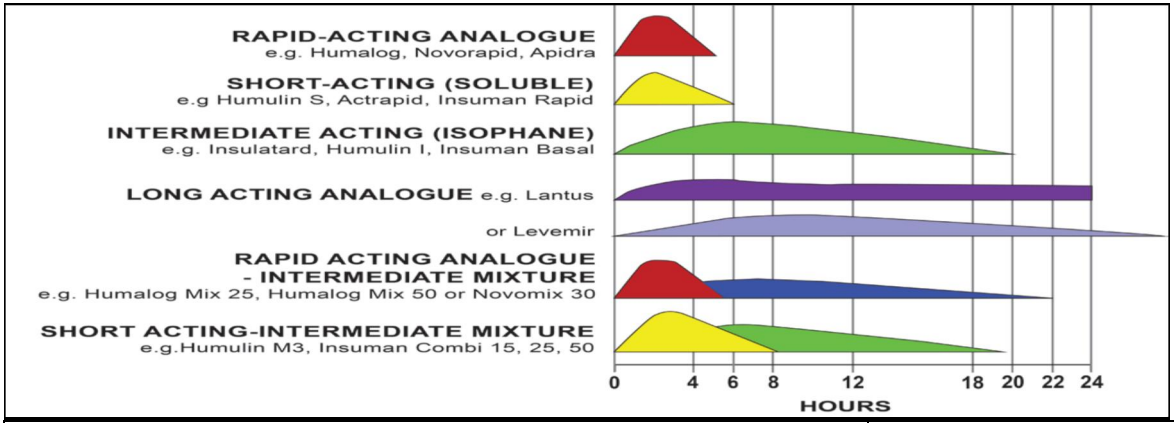
Site	Code	Site	Code
Left arm	LA	Abdominal Lower Left quadrant	ALL
Right Arm	RA	Thigh Upper Left	TUL
Abdominal Upper Left quadrant	AUL	Thigh Lower Left	TLL
Abdominal Upper Right quadrant	AUR	Thigh Upper Right	TUR
Abdominal Lower Right quadrant	ALR	Thigh Lower Right	TLR

THINGS TO CONSIDER:

- **Renal function?**
- **Is the patient well?**
- **Is blood glucose (BG) stable and what is the aim range?**
- **When was the last HbA1c done (6 monthly)**
- **Consider: appetite / eating healthy and regular meals?**
- **Are there any other sick day rules?**
- **What provisions have been made for patients should they be outside of aim range, i.e. hypoglycaemia?**
- **Are you using insulin syringes and safety needles ?**

CONTACT GP OR TEAM LEADER PRIOR TO INSULIN ADMINISTRATION IF YOU HAVE ANY CONCERNS REGARDING THE ABOVE CRITERIA

TIME ACTION PROFILES: Schematic of common insulin preparations (Krentz AJ & Bailey CJ. Type 2 Diabetes in Practice, The Royal Society, of Medicine Press.



Management of Hypoglycaemia i.e. blood glucose (BG) level <4mmol/L:
Treat hypoglycaemia immediately:

- If patient is **conscious & able to swallow, try one of the following:**

100mls Lucozade, 3 – 5 glucose tablets, 200ml orange juice, 100ml Pepsi/Coke, 2 tsp sugar, jam or honey, 4 – 6 boiled sweets/jelly babies

- If patient is drowsy/unconscious/**unable to swallow:** IV 50ml Glucose 20% or 1mg IM Glucagon (adults).

Note: Glucagon is not suitable in malnourished patients, in severe liver disease, Addison's disease; Intravenous glucose must be used in this situation.

- Wash hands & r**echeck BG in 10 minutes** and repeat treatment above if BG still <4 mmol/l
- Provide complex carbohydrate snack promptly once patient recovered and BG >4 mmol/l e.g. wholemeal bread/toast, digestive biscuits, milk or banana
- Re-check BG in 15 minutes to check full recovery

Do not omit insulin: treat 'hypo' and **administer the insulin as prescribed once full hypo treatment has been given & BG above 4 mmol/l**

- Review insulin and/or sulphonyureas doses to prevent further hypoglycaemia
- Inform and agree medication change with patient/parent/carer
- Provide appropriate patient education

Management of Persistent Hyperglycaemia i.e. Persistent hyperglycaemia generally means BG > 11mmol/l on at least 2 consecutive occasions within a 24 hour period.
Is the patient asymptomatic and the BG result considered clinically acceptable or within the target range for this patient at this time?

- **Yes** continue BG monitoring & re-assess if the situation changes. Consider titration of insulin or oral agents to reduce BG levels if not resolved after a few days.
- **No or does the patient have an inter-current illness?** During any illness BG levels will rise as the stress releases glucose from glycogen stores.

Never stop or reduce insulin and/or tablets, they may need more treatment not less to counter act this reaction.

- If urine ketones are ++ or more, seek urgent medical review, send venous blood to lab for blood gas, glucose, urea and electrolytes.
- If urine ketones are +, increase insulin and increase fluid intake.
- Review and check BG and ketones 2 - 4 hourly until confirmed ketone free.
- If unable to take usual meals try soup, ice-cream or cereals.
- Maintain hydration.
- Adjust insulin/medication further on an on-going basis if necessary.
- Inform and agree medication change with patient/parent/carer

ADMINISTRATION RECORD

Patient Name:	Date of Birth:	NHS No:

Date	Time	Insulin	Dose	Site	Batch No.	Expiry date	Signature	BG (mmol/L)	Exp vial (28 days)
29/10/14	08.30	Humulin I	22 units	AUL	111111	12/2015	F Nightingale	10.8	15/11/2014
29/10/14	17.30	Humulin I	14 units	AUR	111111	12/2015	F Nightingale	16.8	15/11/2014
30/10/14	08.15	Humulin I	22 units	AUL	111111	12/2015	F Nightingale	12.2	15/11/2014
30/10/14	17.00	Humulin I	14 units	AUR	111111	12/2015	M Best	18.8	15/11/2014
31/10/14	08.20	Humulin I	26 units	AUL	111111	12/2015	F Nightingale	12.8	15/11/2014
31/10/14	17.20	Humulin I	14 units	AUR	111111	12/2015	M Best	10.8	15/11/2014
01/11/14	08.40	Humulin I	26 units	AUL	111111	12/2015	F Nightingale	10.0	15/11/2014
01/11/14	17.30	Humulin I	14 units	AUR	111111	12/2015	F Nightingale	11.5	15/11/2014
			units						
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			units						
			units						

Please check this is the only medication you will be administering and there is no additional current Prescription/Medication Administration

Appendix 2: Standard Operating Procedure

Title: Administration of Insulin

ACTIVITY	RATIONALE	RESPONSIBILITY
1. COLLECT PATIENT INFORMATION Community Nursing Staff could be requested to administer insulin to patients or to support self-administration. It is essential that the nursing role is clearly defined in the patient's care plan.	To ensure appropriate treatment	RN/SNR
To delegate insulin administration to SNR's the patient must have stable blood glucose levels. If the diabetes control changes or the patients' overall condition then the RN should administer the insulin.	To ensure that delegation to SNR's occurs in only the most appropriate patient	RN/SNR
Where appropriate if the patient or carer is competent the RN/SNR should confirm with the patient or carer that the correct insulin has been dispensed. Check details in the Insulin Passport.	To gain informed consent and document in patient's record	RN/SNR
It is important that the RN/SNR is familiar with the type of insulin prescribed	Different insulins have different onsets and durations of action	RN/SNR
All RN's and SNR's should use a Magellan™ Insulin safety syringe and prescribed named insulin in a Vial as the **first line option** for insulin administration (see appendix 3 & 4)	Insulin Safety syringes conform to the EU safety directive to prevent needlestick injury & reduce administration error	RN/SNR
There are also several insulin devices on the market, it is essential that the RN/SNR is also familiar with the device prescribed.	To reduce risk of administration error	RN/SNR
Whenever possible the RN/SNR should familiarize themselves with the insulin device in advance of seeing the patient.	To allow time to read manufacturer's instructions	RN/SNR
If RN/SNR is unsure how to operate an insulin device, they must seek additional advice and support.	Nurses must work within their competency.	RN/SNR
Always follow the manufacturer's	To reduce risk of administration error	

instructions; each insulin device will have a manufacturer's user guide. If this information is not available in the nursing base, it will be supplied when the device is dispensed to the patient.	Insulin vials are clearly labeled with name of insulin Disposable pens are also clearly labeled with name of insulin to minimize risk in administering the incorrect insulin	RN/SNR
A copy of the manufacturer's instructions should be filed in the patient's base and home records.	To promote safe use of the device	RN
Where appropriate the choice of device may be discussed with the prescriber or the community Diabetes Specialist Nurse (DSN)	The community DSN will ensure the appropriate device selection if requested	RN
The preferred safety needle devices for use with pre-filled /disposable insulin pens are **BD Autoshield™ Duo** (appendix 5)	Autoshield™ Duo insulin pen safety needles conform to the EU safety directive to prevent needlestick injury.	RN/SNR
2. CONSENT Discuss risks and benefits of administration with the patient.	To enable patient choice and understanding	RN/SNR
Encourage the patient to read the manufacturer's patient information leaflet for full details of the insulin prescribed.	To enable patient choice and understanding	RN/SNR
If delegating task to SNR ensure that the patient gives consent for this and that it is document.	To enable patient choice and understanding	RN/SNR
Patient can withdraw consent at any time	Patient's right to withdraw consent at any time.	RN/SNR
3.CHECK PATIENT INSULIN MEDICINES ADMINISTRATION CHART (PMAR) The PMAR must specify the following. · Patient's full name · Patient's date of birth · NHS number · The prescribers signature and date prescribed · Name of the insulin administered (*check the dispensed insulin is the same insulin as written on the PMAR)* · The device prescribed	To reduce potential error (NPSA RR013) To comply with NPSA Safer Practice Notice	RN/SNR
· The number of units to be administered with the word 'units' written out in full, in	The use of abbreviations have resulted in administration errors (NPSA RR013)	RN/SNR

lower case and a space between the dose and the word unit. · The time and frequency of administration. · The route of administration i.e. subcutaneous injection · Known allergies	Failure to administer within the correct time interval can be detrimental to the patient.	RN/SNR
4.STORAGE OF INSULIN		
Instruct patient to store the insulin according to manufacturer's instructions. Unopened Insulin should be kept in the main part of the fridge or in the door (not at the back) Store at 2-8 C	To ensure safe storage of insulin	RN/SNR
Insulin in use can be stored out of the fridge for up to 28 days-.	To ensure that the insulin is working effectively	RN/SNR
The date of commencement of use must be identified in writing on the vial or pen and recorded on the insulin administration chart.	To reduce risk of expired stock being administered	RN/SNR
Manufacturer's expiry date should be checked and if the insulin has been in use for over the recommended period. Any expired insulin should be discarded.	To ensure that the insulin is working effectively	RN/SNR
5 PREPARATION OF INSULIN Wash hands in accordance with TSDHCT policy.	To prevent infection	RN/SNR
Nurses should not mix different insulins in the same syringe for administration	To reduce the risk of administration errors	RN/SNR
Insulin must not be withdrawn from a 3ml insulin cartridge or pre-loaded pen with a syringe	To reduce errors as these devices were not designed for this purpose and it also creates an unlicensed product	RN/SNR
Always follow manufacturer's instructions for the device prescribed	To reduce administration errors	RN/SNR
If using vials only an **Insulin safety syringes** with 8mm needle must be used.	To reduce the risk of needlestick injury & comply with Health and safety regulations (2013)	RN/SNR
The syringe should be only used once	To prevent infection and skin trauma	RN/SNR
If using pre-loaded insulin pens only **BD Autoshield™ Duo** safety insulin pen needles should be used.	To prevent infection and skin trauma To reduce the risk of needlestick injury & comply with Health and safety regulations (2013)	RN/SNR

The 5mm needle must be put on the pre-loaded insulin pen device prior to each administration.		
6.ADMINISTRATION		
Check the time and frequency of the insulin	Failure to administer within the correct time interval can be detrimental to the patient and effect the control of their diabetes	RN/SNR
Ensure the identity of the patient to whom the insulin is to be administered. Check name, date of birth	To prevent administration error	RN/SNR
Check the prescribed dose has not already been given. Check nursing records	To prevent duplicate administration	RN/SNR
Check details on the PMAR correspond to pharmacy label Check manufacturers expiry date and also if the insulin is already in use check the date first used.	To reduce risk of expired stock being used	RN/SNR
Know and understand the contents of the current care plan for administration of insulin	To reduce the risk of administrative error	RN/SNR
Comply with Torbay and Southern Devon Health and care NHS Trust's Administration of Medicines	To comply with safe practice	RN/SNR
Administer the insulin by subcutaneous injection according to manufacturer's instructions.	To comply with safe practice.	RN/SNR
Cloudy insulin should be either rocked back and forth or rolled in palm of hand at **least 10 times,** regardless of whether it is in a vial or a prefilled pen device. **Clear insulin** does not need to be mixed in this way.	To ensure it is fully mixed	RN/SNR
For Insulin safety syringes (also see Appendix 3): 1. remove from package and pull plunger back to the required amount of units and insert into vial	To ensure a robust audit trail and to reduce the risk of administrative error.	RN/SNR
2. insert needle into insulin vial and push plunger of air into vial and withdraw same amount of insulin from vial.	To ensure dose in syringe is accurate	RN/SNR
3. check syringe for any air bubbles. Gently tap syringe with the needle pointing to the ceiling and expel any air		
4. Depending on the amount of subcutaneous tissue at the injection site insert needle either halfway or two thirds into tissue and push plunger slowly so that the insulin is	To ensure the reliability of insulin absorption because the insulin is in the subcutaneous tissue and in muscle where insulin absorption is much quicker and less reliable leading to wide variability in Capillary Blood Glucose readings.	RN/SNR

delivered into the subcutaneous tissue. 5. Slide the needle protector over the needle with your finger or thumb When the needle protector has completely covered the needle and is in the lock position, you will hear a **'click'**	Reduce the risk of needle stick injury	RN/SNR
For the AutoShield Duo™(also appendix 4) **1** Attach the needle to the pre-filled pen device **2** Prime the needle with a 2 unit air shot **3** Grip pen in palm of hand and keep thumb up 4. The needle has fully penetrated the skin when the white shield is in contact with skin. Inject insulin at 90° 5. Wait 10 seconds before removing the needle from the skin. **6. On patient end**, a red indicator band will confirm that the safety mechanisms have been activated. On withdrawal from the skin, the patient end shield will lock. **On pen end**, protection is confirmed when orange shield deploys and covers the needle upon removal from the pen.	Reduce the risk of needle stick injury	RN/SNR
In the event of nursing staff being unable to administer insulin as prescribed it is essential that urgent advice is obtained from the patient's GP, Out of Hours or RN's line manager.	To ensure care plan and insulin dosage is current to the clinical need.	RN/SNR
7.DOCUMENTATION Make clear, accurate and immediate record of the insulin administered on the Insulin PMAR.	To comply with NMC record keeping guidelines and Medicines Policies	RN/SNR
8.DISPOSAL OF SHARPS All sharps to be disposed of in a yellow sharps bin. Re sheathing of needles for disposal must NEVER be performed	To comply with local policy for Disposal and Usage of Sharps	RN/SNR

9.DISPOSAL OF INSULIN NO LONGER IN USE Advise patient to arrange for expired stock to be returned to their usual community pharmacy	To reduce administration error	RN/SNR
10. ENSURE PATIENT HAS AN UP TO DATE CARE PLAN Ensure patient has an up to date care plan which includes actions to be taken in the event of hypoglycaemic or hyperglycaemic episodes. Target CBG range and who to contact when out of range The care plan should include who has clinical responsibility should an adverse clinical episode occur as treatment may need to be adjusted. All communications and actions must be evidenced in the patient health records	To ensure care plan and insulin dosage is current to the clinical need.	RN/SNR

Appendix 3

Using Magellan Insulin safety Syringes

NEW Magellan™ Safety Insulin Syringes*

Use your insulin syringes as before BUT AFTER USE, DO THE FOLLOWING…

1. Slide the needle protector over the needle with your finger or thumb
2. When the needle protector has completely covered the needle and is in the lock position, you will hear a **'click'**
3. Once the needle protector is locked, dispose of the insulin syringe immediately in a sharps box

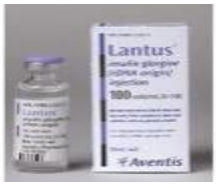
*Reference: Directive/32/EU – Prevention from sharps injuries in the hospital and healthcare sector

Appendix 4

Current availability of Insulin Vials & Pre-filled insulin pen devices

N.B: Do not use 3ml cartridges. If there is no alternative available to any of these insulin devices or vials, seek advice from the Diabetes Specialist Nurse

MANUFACTURER	Lilly™	novo nordisk® ™	sanofi aventis ™
SHORT ACTING	**HUMULIN S** 10ml vial 	**ACTRAPID** 10ml vial 	**INSUMAN RAPID** **10ml vial or preloaded pen not available – seek advice**
RAPID ACTING	**HUMALOG** (LISPRO) 10ml Vial  Prefilled Kwikpen 	**NOVORAPID** (ASPART) Prefilled Flexpen 	**APIDRA** (GLUISINE) 10ml Vial  Prefilled Solostar Pen 
INTERMEDIATE ACTING	**HUMULIN I**  10ml Vial Prefilled Kwikpen 	**INSULATARD** Innolet prefilled device 	**INSUMAN BASAL** 5ml Vial  Prefilled Solostar 

HUMAN BIPHASIC MIX	HUMULIN M3  10ml Vial Prefilled Kwikpen 	**No insulin available by this manufacturer**	**INSUMAN COMB 25** 5mll Vial  **Insuman Comb 15 & Insuman Comb 50 - 10ml vial or preloaded pen not available – seek advice**
	Lilly™	novo nordisk® ™	sanofi aventis ™
ANALOGUE BIPHASIC MIX	**Humalog MIX 25™** Prefilled Kwikpen &10ml vial  **Humalog MIX 50™** Prefilled Kwikpen 	**NovoMix 30™** Pre-filled Flexpen 	**No insulin available by this manufacturer**
LONG ACTING ANALOGUE	**No insulin available by this manufacturer**	**Levemir™**  Prefilled Innolet device & prefilled Flexpen	**Lantus™** 10ml Vial  Solostar pre-filled pen 

Appendix 5

Using the BD Autoshield Duo with a pre-filled insulin pen

The Mental Capacity Act 2005

The Mental Capacity Act provides a statutory framework for people who lack capacity to make decisions for themselves, or who have capacity and want to make preparations for a time when they lack capacity in the future. It sets out who can take decisions, in which situations, and how they should go about this. It covers a wide range of decision making from health and welfare decisions to finance and property decisions

Enshrined in the Mental Capacity Act is the principle that people must be assumed to have capacity unless it is established that they do not. This is an important aspect of law that all health and social care practitioners must implement when proposing to undertake any act in connection with care and treatment that requires consent. In circumstances where there is an element of doubt about a person's ability to make a decision due to 'an impairment of or disturbance in the functioning of the mind or brain' the practitioner must implement the Mental Capacity Act.

The legal framework provided by the Mental Capacity Act 2005 is supported by a Code of Practice, which provides guidance and information about how the Act works in practice. The Code of Practice has statutory force which means that health and social care practitioners have a legal duty to have regard to it when working with or caring for adults who may lack capacity to make decisions for themselves.

"The Act is intended to assist and support people who may lack capacity and to discourage anyone who is involved in caring for someone who lacks capacity from being overly restrictive or controlling. It aims to balance an individual's right to make decisions for themselves with their right to be protected from harm if they lack the capacity to make decisions to protect themselves". (3)

All Trust workers can access the Code of Practice, Mental Capacity Act 2005 Policy, Mental Capacity Act 2005 Practice Guidance, information booklets and all assessment, checklists and Independent Mental Capacity Advocate referral forms on iCare

http://icare/Operations/mental_capacity_act/Pages/default.aspx

Infection Control

All staff will have access to Infection Control Policies and comply with the standards within them in the work place. All staff will attend Infection Control Training annually as part of their mandatory training programme.

Quality Impact Assessment (QIA)

	Please select			
Who may be affected by this document?	Patient / Service Users	☒	Visitors / Relatives	☐
	General Public	☐	Voluntary / Community Groups	☐
	Trade Unions	☐	GPs	☒
	NHS Organisations	☒	Police	☐
	Councils	☐	Carers	☐
	Staff	☒	Other Statutory Agencies	☐
	Others *(please state):*			

Does this document require a service redesign, or substantial amendments to an existing process? NO	☐
If you answer yes to this question, please complete a full Quality Impact Assessment.	

Are there concerns that the document could adversely impact on people and aspects of the Trust under one of the nine strands of diversity? NO	Age	☐	Disability	☐
	Gender re-assignment	☐	Marriage and Civil Partnership	☐
	Pregnancy and maternity	☐	Race, including nationality and ethnicity	☐
	Religion or Belief	☐	Sex	☐
	Sexual orientation	☐		
If you answer yes to any of these strands, please complete a full Quality Impact Assessment.				
If applicable, what action has been taken to mitigate any concerns?				

Who have you consulted with in the creation of this document? *Note - It may not be sufficient to just speak to other health & social care professionals.*	Patients / Service Users	☐	Visitors / Relatives	☐
	General Public	☐	Voluntary / Community Groups	☐
	Trade Unions	☐	GPs	☐
	NHS Organisations	☐	Police	☐
	Councils	☐	Carers	☐
	Staff	☒	Other Statutory Agencies	☐
	Details *(please state):*			