

Safe and Effective Use of Insulin for Adults in Community and Inpatient Settings Toolkit

Document Summary

The purpose of this policy is to guide and promote awareness and management of key risks associated with the prescribing, management and administration of insulin

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Important Note:

The Intranet version of this document is the only version that is maintained.

Any printed copies should therefore be viewed as “uncontrolled” and, as such, may not necessarily contain the latest updates and amendments.

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1 SCOPE

This toolkit applies to all employees in the Trust including bank staff and agency staff working in the Trust. It also covers employees not working in Trust premises. The policy also applies to members of staff who not directly employed by the Trust but who act in a professional capacity within the Trust through a service level agreement.

This toolkit is a supplement to the Trust Medicines Policy and is to be read in conjunction with this policy.

2 INTRODUCTION

Many people need insulin on a daily basis. In general using insulin is safe. There is potential for serious harm if it is not administered and handled correctly. Deaths and severe harm incidents have resulted from administration errors with insulin products. NHS England has classified two types of overdose with insulin as never events i.e. the organisation must take steps to design out the possibility of these events occurring. These never events are

- prescribers must always prescribe in units NEVER “U” or “IU”.
- Healthcare professional administering insulin must use a specific insulin administration device i.e. an insulin syringe or insulin pen to measure insulin and avoid withdrawing insulin from pen devices or cartridges.

3 STATEMENT OF INTENT

It is intended that the toolkit will be useful to the multi-disciplinary team in organising and delivery high quality diabetes care. There remains, however, an individual responsibility of healthcare professionals to make decisions appropriate to the circumstance of the individual patient, informed by the patient and/or their guardian or carer and taking full account of their medical condition and treatment.

4 DEFINITIONS

Insulin: - a naturally secreted hormone which the body needs for correct function and plays a key role in the regulation of protein, fat and carbohydrate metabolism. It facilitates glucose circulating in blood to be absorbed by cells. Injecting insulin is an essential part of daily regimen for many people with diabetes.

Insulin Passport: - a patient held document which documents the patient's current insulin products(s) and enables a safety check for prescribing, dispensing and administration of insulin. It provides essential information when patients transfer across healthcare sectors, if the details are kept up to date

BGL – blood glucose

HCP – health care professional (registered nurse, doctor, pharmacist)

HHS- Hyperosmotic hyperosmolar syndrome

5 DUTIES

Refer to Medicines Policy and in addition:

Community and inpatient teams will be supported by the Specialist Diabetes team in developing a Diabetes Champion to ensure quality diabetes care is delivered with their team. It is important to have at least one nurse in each team who has completed the champions training programme. (See appendix 10.4).

Healthcare professionals who prescribe insulin are responsible for issuing all patients with a Patient Information booklet and an Insulin Passport. They are responsible for issuing replacement when there is no space left for new information or documents are lost or become unreadable. This would normally be the GP or practice nurse.

6 GENERAL PRINCIPLES AND PROCEDURES FOR INSULIN USE AND RISK REDUCTION

6.1 Errors

Errors with insulin administration can occur in any setting as a result of

- Dispensing error
- Prescribing error or unclear prescribing
- (The British National Formulary specifies that the word “unit” should be used not abbreviated. The use of “U” or I.U. for units can lead to errors of 10 times the correct dose of insulin being given as it could be read as 0.)
- Inaccurate dosing and administration
- Omitted or delayed administration
- Unfamiliarity with insulin administration devices
- Failure to identify the correct patient
- Failure to clearly identify patients as requiring assistance with administering insulin
- Failure to prioritise the scheduling of assistance for patients requiring help in accurately administering insulin
- Failure to update Insulin Passport when insulin type or doses are changed

6.2 Prescribing Insulin

All prescriptions for insulin must use the word “units” for the dose. Abbreviations such as “U” or I.U. must **never** be used.

Insulin prescribed must specify the proprietary (brand) insulin name and dose as well as administration device. Insulin will be initiated by the HCPs in general practice, inpatient settings and by the Diabetes Specialist team.

Inpatients

Patients admitted to inpatients facilities will require prescription for insulin to be written promptly. If the prescriber checks the patient’s insulin passport as a source of patient’s current insulin type and dose the prescriber must be aware that the passport may not be up to date.

The prescriber must ensure up to date records are accessed to establish insulin dose on admission and must communicate accurate insulin dose on discharge or transfer of care.

If a separate insulin prescription chart is in use the main medicine chart must state insulin “as per chart”. The full brand insulin name and dose (units) will be specified on the separate insulin chart.

Community Patients

Patients administered insulin by community teams will use:
“Prescription of Insulin in Community Setting Prescription Forms”

These forms must be clearly rewritten by the prescriber promptly if there is any change in:

- Insulin type
- Insulin dose

6.3 Procedure for administration of insulin

Gather the following equipment

- Prescription chart
- Correct insulin and administration device
- Manufacturers guideline regarding use of administration device
- Safety needles if HCP administering insulin
- Non-safety insulin pen needles if patient can self-administer insulin, remove and dispose of the used sharp themselves.
- Blood glucose monitoring equipment used according to manufacturer's guidelines
- Hand wash facility for patient and HCP
- Sharps box
- Documentation

Check identity of patient to check correct patient

- Explain and discuss the procedure with patient and gain consent to administer if HCP giving insulin. Read the prescription chart and consider the following:
- Is this the correct patient?
- What is the immediate blood glucose reading?
- What is the current overall blood glucose control?
- Does the insulin type or dose need reviewing?
- Check administration section to ensure the insulin dose has not already been given
- Is the prescription clearly written stating insulin type by brand name, amount in units, date and time insulin to be given?
- Does insulin dispensed match current prescription?
- Has patient had recent review leading to a change insulin type or dose?
- Insulin is a critical medicine and must not be omitted unless the patient refuses or on medical advice.

- Ensure patients privacy and dignity
- Check injection sites for signs of inflammation, infection or hyperlipotrophy. Avoid injecting into these areas as this would distort insulin absorption. Rotate insulin sites at each injection (see prescription chart Appendix 1 for advice).
- What is the action of the insulin to be administered and when does the patient need food to prevent hypoglycaemia. (See [Appendix 1](#)).
- Attach needle to pen device according to manufactures guidelines. Safety needles must be used by all CPFT staff administering insulin. For a video on

the use safe sharps needles please click [here](#). All staff must have completed this training prior to using safety needles for administering insulin.

- Cloudy insulins (e.g. Humulin I) must be re-suspended by gently inverting or rolling two or three times. Repeat this if insulin is not uniform in consistency.
- The insulin administration device should be used according to manufactures guidelines. Dial up 2 units of insulin and depress plunger to ensure device is operating and needle is patent. If insulin is not seen, repeat x2 times. If no insulin seen replace needle and dial 2 units. If no insulin seen, use a new device and repeat as above.
- Insert needle into appropriate injection site and steady the bottom of the pen device as the plunger is depressed. Once plunger stops clicking leave needle in subcutaneous for 10 seconds to allow entire insulin dose to be pushed through needle at an angle of 90 degrees.
- Withdraw needle and remove from insulin pen and dispose of it in sharps bin. (See infection control video for instructions [here](#)).
- Clearly record the name of the insulin given, time, date, BGL level and sign administration sheet.
- If in any doubt about current prescription, the nurse must refer to the prescriber immediately and withhold the insulin until clarification and a clear prescription is obtained.

- Monitoring

Glucose levels must be checked before every insulin dose. If blood glucose levels are not checked the reason must be documented with clinical rationale e.g. terminal illness or patient refusal. (N.B. if the patient is terminally ill please refer to the end of life protocol and palliative care for advice).

If an extra dose of rapid acting insulin to resolve high blood glucose reading has been administered then glucose levels must be checked 2 hours post dose.

If the patient is unwell or has a BG over 13 and if ketone prone (ie Type 1 diabetic or a history of ketones) or over 17 if not ketone prone (e.g. Type 2 diabetes) check Blood or urine ketones.

If ++ of urinary ketones present the patient should have urgent bloods taken to assess if diabetic ketoacidosis (DKA)

(HHS- formerly HONK) may also develop were there are clinical signs of dehydration, high blood glucose but ketones are rarely present. If urgent blood tests for U&E and Bicarb are not possible admit to hospital for assessment bearing in mind that DKA is a medical emergency.

Assess patient's overall condition.

NB If Ketostix have been prescribed urine to be tested for ketones-the date which the box is opened should be recorded on the appropriate documents and replaced 6 months after opening.

6.7 Management of Hyperglycaemia- no ketones

If the patient has a raised blood glucose level but no ketones present this could be related to:

- Faulty meter
- Steroid therapy
- Failure to wash hands before testing
- Dietary intake
- Injection site
- Timing of insulin dose
- Patient becoming less physically active

The patient may not require extra insulin but may need increased blood glucose monitoring 2 hours post raised test. If the high blood glucose has not resolved or has risen contact the doctor for further management advice.

6.8 Hypoglycaemia

6.8.1 Recognising Hypoglycaemia

Hypoglycaemia is determined by blood glucose reading of **4 or less**

Symptoms include:-

Autonomic – pallor, sweating, tremor, tachycardia

Neuroglycopaenic– loss of concentration, behavioural changes, fits, transient neurological deficits, reduced level of consciousness. Symptoms may be similar to those of stroke.

Some patients especially with long standing Type 1 diabetes may lose their awareness of hypoglycaemia

Symptoms may be difficult to assess in the elderly and hypoglycaemia in the elderly can **increase mortality**.

6.8.2 Risk Factors for Hypoglycaemia

Medical Issues	Lifestyle Issues
Tight glycaemic control	Increased exercise (relative to usual)
Previous history of severe hypoglycaemia	Irregular lifestyle
Undetected nocturnal hypoglycaemia	Increasing age
Long duration of diabetes	Alcohol
Poor injection technique	Early pregnancy
Impaired awareness of hypoglycaemia	Breast feeding
Preceding hypoglycaemia (<3.5mmol/l)	Injection into areas of lipohypertrophy (lumpy injection sites)
Severe hepatic dysfunction	Inadequate blood glucose monitoring
Renal dialysis therapy	Reduced carbohydrate intake - e.g., coeliac disease, gastroenteritis
Impaired renal function	Inadequate treatment of previous hypoglycaemia
Terminal illness	

6.8.3 Potential Causes of Hypoglycaemia in inpatient and community care settings

Medical Issues	Lifestyle Issues
Incorrect insulin prescribed and administered	Missed or delayed meals
Discontinuation of long term steroid therapy	Less carbohydrate than normal in a meal
Recovery from acute illness / stress	Change of the time of the biggest meal of the day without insulin adjustment i.e., main meal at midday rather than evening
Mobilisation after illness	Lack of access to usual between meal or before bed snacks

Major amputation of a limb	Prolonged starvation time e.g., NBM
Inappropriately timed diabetes medication for meal /enteral feed	Vomiting
Incorrect use of “stat” / “prn” rapid acting insulin	Inadequate mixing of intermediate acting or mixed insulins
Regular insulin doses being given in hospital when these are not routinely taken at home	Reduced appetite

6.8.4 Treatment of Hypoglycaemia

A person experiencing hypoglycaemia requires 15-20g of quick acting carbohydrate (CHO) to return their blood glucose to the normal range 5-7 glucose tablets or 4 glucotabs or 200ml fruit juice or 120ml Lucozade. This quick acting CHO should be followed by a long acting CHO e.g. glass of milk to maintain their blood glucose within the normal range (see appendix 2 below). If a meal is due this would be given after the initial treatment with quick acting carbohydrate.

Treatment should be commenced without delay.

Glucagon

- Should only be used once during treatment of a hypoglycaemic episode in the unconscious patient.
- If the glucagon does not work within 20 minutes, call an ambulance.
- The patient may vomit after receiving glucagon.
- The effect will wear off after approx. 30 minutes and the patient should be monitored.
- Patients given glucagon will require a larger portion of long acting carbohydrate (CHO) to replenish glycogen stores.
- Glucagon will not be effective in patients with liver disease, glucocorticoid deficiency or who have been malnourished or starved or have alcohol in the blood stream.

Suitable long acting carbohydrate (CHO) snack

- 2 biscuits
- 1 slice bread / toast
- 200 – 300ml milk (not soya)
- Normal meal (must contain CHO)

Staff should continue to monitor the patient until the long acting carbohydrate snack has been eaten and for the following 2 hours.

6.8.5 Documentation

All hypoglycaemic episodes should be documented in the patient records.

6.8.6 Referral

The likely reason for the episode of hypoglycaemia needs to be considered and the regular insulin treatment reviewed following an episode by the prescriber.

If there are any difficulties in managing patients on insulin please refer to the diabetes specialist nurses using the [THINK GLUCOSE](#) (appendix 3) referral criteria.

6.5 Self-administration

Where patients are able they should self-administer insulin providing that the following are in place

- Risk assessment and action plans to ensure the patient has capacity to understand their medication, ability to follow correct dosing procedure and

knowledge of prescribed changes in dose or insulin type. Other risks of patient environment and behaviours must also be assessed. This may require the co-ordinated involvement of other professionals.

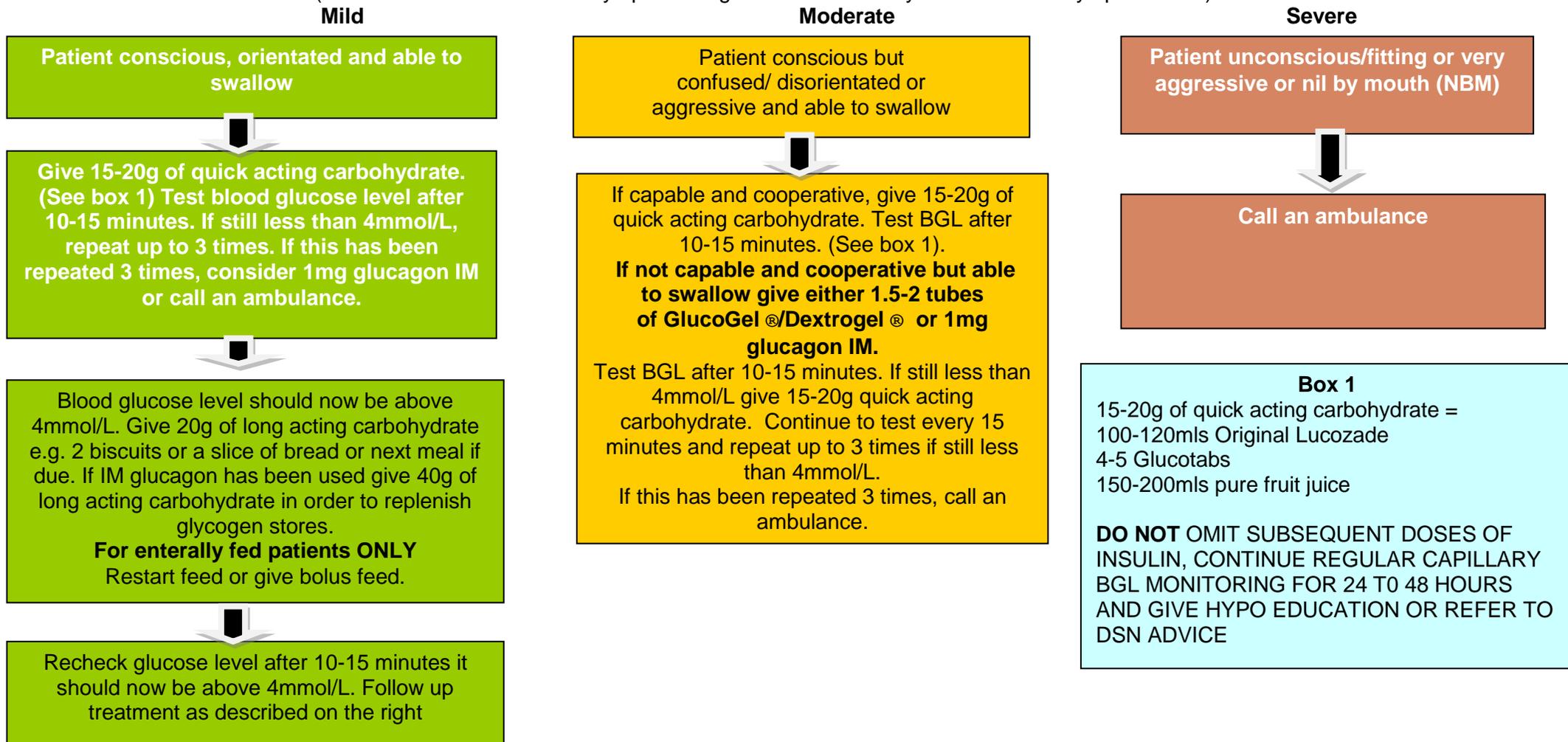
- Access to food at the appropriate time.
- Mechanisms for recording self-administration doses of insulin.
- Bed side secure storage in in-patient facilities.

6.6 DAPHNE (Dose adjustment for normal eating)

Some patients are a DAPHNE graduate, which means that they have been taught how to estimate the amount of carbohydrate in their food and then calculate the amount of insulin they require administering in a ratio of for example one unit of insulin to 10g of carbohydrate. These patients are experts in managing their own insulin and where ever possible they should be encouraged to continue doing so. In the case of mental health patients this is also desirable provided a risk assessment has been completed to identify if they have any thoughts of suicide or self-harm.

7 ALGORITHM FOR THE TREATMENT OF HYPOGLYCAEMIA IN ADULTS WITH DIABETES

Hypoglycaemia is defined as blood glucose of less than 4mmol/L
(if not less than 4mmol/L but symptomatic give a small carbohydrate snack for symptom relief)



For enterally fed patients please see Section E of the Hypoglycaemia Guideline [here](#)

8 TRAINING

8.1 Insulin therapy

Healthcare professionals involved in the preparation, administration and monitoring of insulin therapy must have the appropriate knowledge and competence for the management of diabetes and knowledge and understanding of the NPSA alert [NPSA/2010/RRR013](#), Safer administration of insulin and [NPSA/2011/PSA003](#) The adult patient's passport to safer use of insulin.

8.2 Training for Assistant Practitioners and Health care support workers:

Non-registered clinical support staff involved in the administration and monitoring of insulin therapy must have completed the designated training and demonstrated competence, see: Health Care Support Worker Administration of Insulin via Pen device, by Delegation – Training and competency with this policy

e-learning programme information is available:

<http://cptportal.cumbria.nhs.uk/SiteDirectory/learningnetwork/Documents/The%20Safe%20Use%20of%20Insulin.doc>

or direct link:

http://nhsdiabetes.healthcareea.co.uk/nhs_diabetes_england.aspx

9 MONITORING COMPLIANCE WITH THIS DOCUMENT

The table below outlines the Trusts' monitoring arrangements for this policy/document. The Trust reserves the right to commission additional work or change the monitoring arrangements to meet organisational needs.

Aspect of compliance or effectiveness being monitored	Monitoring method	Individual responsible for the monitoring	Frequency of the monitoring activity	Group / committee which will receive the findings / monitoring report	Group / committee / individual responsible for ensuring that the actions are completed
Risk assessment of administering insulin	Review incident reports	Team managers	Quarterly	Cross care group	Deputy director of nursing, quality and patient experience
Incidents involving injectables	Review incident reports	Line managers		Cross care group	Deputy director of nursing, quality and patient experience. Safe Medicines Practice Group
Completion of insulin passport by Cumbria Diabetes Team	Clinical Codes	Clinical Director (Dr C Hay)	Quarterly	Cumbria Diabetes Management Team	Deputy director of nursing, quality and patient experience
Completion of insulin passport by General Practice	Clinical Codes	CCG	Quarterly		Deputy director of nursing, quality and patient experience
Completion of training associated with the policy in line with Training Needs Analysis	Compliance with training will be monitored in accordance with the Learning & Development Policy				

10 REFERENCES/ BIBLIOGRAPHY

March 2011 The adult patient's passport to safer use of insulin NPSA/2011/PSA003

June 2010 Safer administration of insulin NPSA/2010/RRR013

March 2010 Hospital management of hypoglycaemia in adults with diabetes mellitus,
(NHS Diabetes)

NG17 Type 1 diabetes in adults: diagnosis and management

NG28 Type 2 diabetes in adults:managment

11 APPENDICES

11.1 Appendix 1 Palliative care and diabetes

Specialist advice is available from the diabetes and palliative care consultants. In the meanwhile there is guidance on page 20 of the North of England guidance <http://www.nescn.nhs.uk/updated-palliative-and-end-of-life-care-guidelines-published/>

11.2 Appendix 2 Profile of insulin action

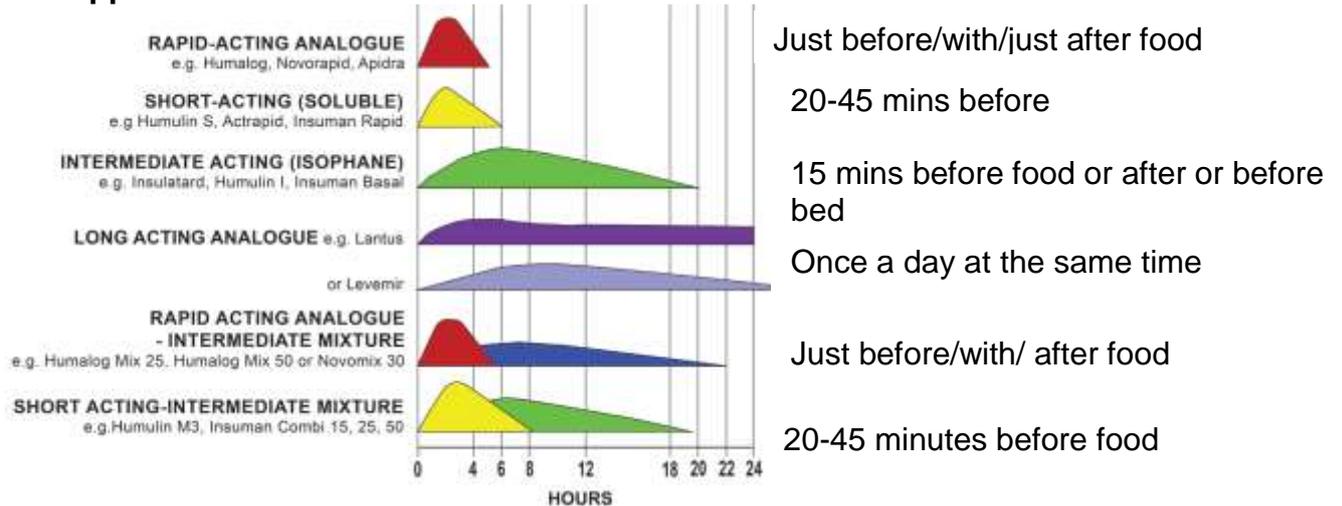


Figure 1 Profile of insulin action and administration in relation to food

11.3 Appendix 3 Think Glucose

THINK GLUCOSE ASSESSMENT AND REFERRAL GUIDELINES

Early referral to diabetes team recommended

- Admission for urgent or major elective surgical procedure
- Acute coronary syndrome
- Diabetic ketoacidosis/ hyperosmolar/ hyperglycaemic state
- Severe hypoglycaemia
- Sepsis
- Vomiting
- Impaired consciousness
- Unable to self-manage
- Parenteral or enteral nutrition
- Foot ulceration
- Newly diagnosed type 1 diabetes
- Newly diagnosed type 2 diabetes
- Intravenous insulins infusion for over 48 hours
- Intravenous insulins infusion with glucose outside limits
- Previous problems with diabetes as inpatient
- Patient request

Referral to diabetes team may be required

- Intravenous insulin infusion with good glucose control
- Nil by mouth more than 24 hours post-surgery
- Significant educational need
- Persistent hyperglycaemia
- Possible type 2 diabetes
- Stress hyperglycaemia
- Poor wound healing
- Steroid therapy

Referral to diabetes team not normally required

- Minor, self-treated hypoglycaemia
- Transient hyperglycaemia
- Simple educational need
- Routine dietetic advice
- Well controlled diabetes
- Good self-management skills
- Routine diabetes care

11.4 **Appendix 4** Insulin chart sample

INSULIN PRESCRIPTION FOR USE IN THE COMMUNITY SETTING

COMMUNITY NURSE TEAM..... GP Responsible for Diabetes Care

Patient Name:
D.o.B:
Address:
NHS Number/Sticker

Allergies / Sensitivities:

Blood Glucose aim range
Hba1c Result Date
Review Date

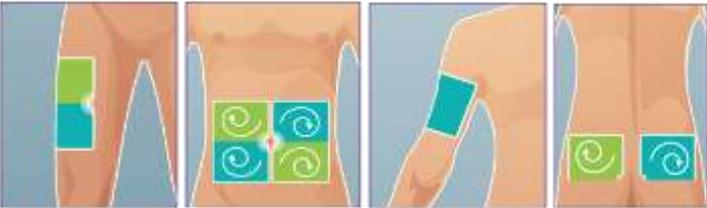
Note to GP
If prescription changes please write new chart.

PRESCRIPTION

INSULIN					Prescriber signature	Date	Review Date
Full Product Name	Special Instructions	Route	Dose (number in word)	Time			
				units			
				units			
				units			
				units			

ANTI HYPOGLYCAEMIC							
Full Product Name	Route	Instructions and Dose including when should be administered and after care			Prescriber Signature	Date	Review Date
Glucose Gel	Orally	1 Tube if blood glucose 4 mmols or under. Recheck after 5 to 10 minutes and administer 2nd tube if still under 4 mmols If blood glucose has not risen above 4 mmols then contact for medical opinion					

Glucagon	SC	1 milligram kit to be given if below 4 mmols and patient unconscious / unable to swallow Recheck after 5 to 10 minutes if remains below 4 mmols contact 999 If recovers give 20grams of quick acting carbohydrate i.e. 2 x Glucogel or 100 millilitres Lucozade or 200 millilitres full sugar coke / lemonade Followed by 30grams of starchy food i.e. 2 slices of bread Stay with person until eaten			
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<p>SITES AND ROTATION</p> <p>ROTATION Rotation will improve glycaemic control Use identified injection sites – pick a site per week Then move to next zone Mark zone used on administration form Inject at least 1 cm away from last injection point, moving in a clockwise direction</p> 	<p>SITES</p> <table border="1"> <thead> <tr> <th>Site</th> <th>Code</th> <th>Site</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>Left Arm</td> <td>LA</td> <td>Abdo Lower left quadrant</td> <td>ALL</td> </tr> <tr> <td>Right Arm</td> <td>RA</td> <td>Thigh upper left</td> <td>TUL</td> </tr> <tr> <td>Abdo Upper Left quadrant</td> <td>AUL</td> <td>Thigh Lower Left</td> <td>TLL</td> </tr> <tr> <td>Abdo Upper right quadrant</td> <td>AUR</td> <td>Thigh Upper right</td> <td>TUR</td> </tr> <tr> <td>Abdo Lower right quadrant</td> <td>ALR</td> <td>Thigh Lower Right</td> <td>TLR</td> </tr> </tbody> </table>	Site	Code	Site	Code	Left Arm	LA	Abdo Lower left quadrant	ALL	Right Arm	RA	Thigh upper left	TUL	Abdo Upper Left quadrant	AUL	Thigh Lower Left	TLL	Abdo Upper right quadrant	AUR	Thigh Upper right	TUR	Abdo Lower right quadrant	ALR	Thigh Lower Right	TLR
Site	Code	Site	Code																						
Left Arm	LA	Abdo Lower left quadrant	ALL																						
Right Arm	RA	Thigh upper left	TUL																						
Abdo Upper Left quadrant	AUL	Thigh Lower Left	TLL																						
Abdo Upper right quadrant	AUR	Thigh Upper right	TUR																						
Abdo Lower right quadrant	ALR	Thigh Lower Right	TLR																						
	<p>CONSIDER YOUR PATIENT Renal Function Is the Patient well Is the Blood Glucose stable and within the aim range If not what actions should be taken When was the last HbA1c taken (6 monthly) Appetite and eating habits and access to healthy meals, reliance on carers – contingency plan if carers not available “Sick day” rules</p> <p>BLOOD GLUCOSE GUIDE:</p> <p>Hypoglycaemia:- less than 4 mmols OR has symptoms Normal Blood Glucose range:- 4-9mmols</p>																								

RAPID-ACTING ANALOGUE
e.g. Humalog, Novorapid, Apidra

SHORT-ACTING (SOLUBLE)
e.g. Humulin S, Actrapid, Insuman Rapid

INTERMEDIATE-ACTING (ISOPHANE)
e.g. Insulatard, Humulin I, Insuman Basal

LONG ACTING ANALOGUE
e.g. Lantus
or Levemir

RAPID ACTING ANALOGUE - INTERMEDIATE MIXTURE
e.g. Humalog Mix 25, Humalog Mix 50 or Novomix 30

SHORT ACTING-INTERMEDIATE MIXTURE
e.g. Humulin M3, Insuman Combi 15, 25, 50

Hyperglycaemia:- is the patient well?
If they are unwell suspect a differential diagnosis e.g. infection?
Diabetics prone patients 13 mmols or above
ketones patients 17 mmols or above

Management of Hyperglycaemia

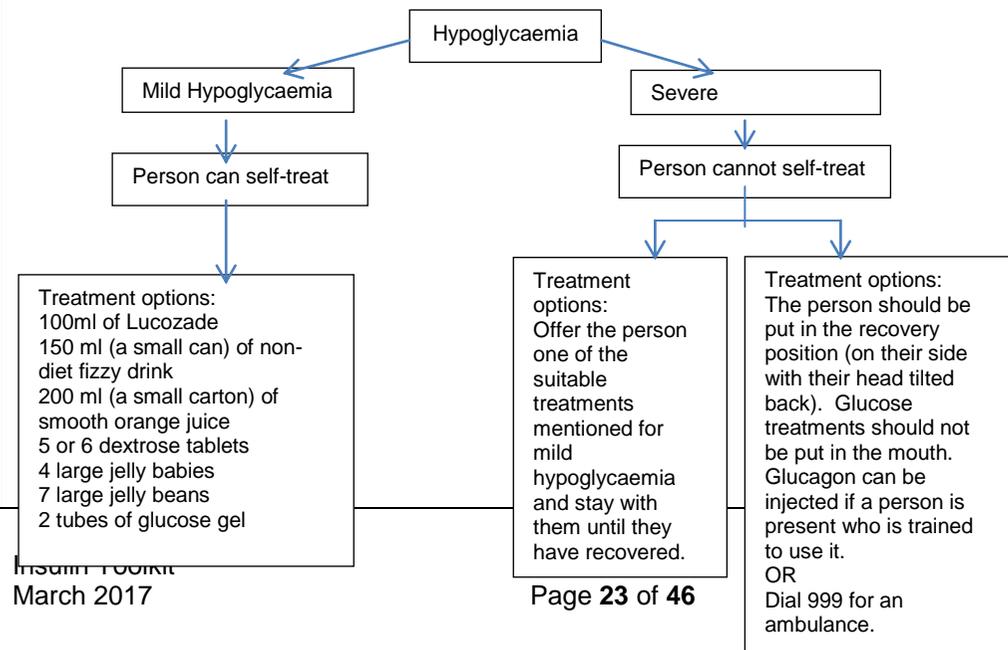
Food Glucose of greater than 13 mmols on at least 2 consecutive occasions within a 24 hr period

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 and re assess if the situation changes. Consider the 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 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 advice and discuss the need for venous blood sample to be taken (standard bicarb, glucose, U&E)
Review and check BG and ketones 2 to 4 hourly until confirmed ketone free
If unable to take usual meals try soup, ice cream or cereals
Maintain hydration
Adjust insulin / medication change with patient/ parent/ carer

Hypoglycaemia management algorithm



INSULIN ADMINISTRATION RECORD

Repeat blood glucose after 5-10 minutes. If the person does not feel better (or their blood glucose is still less than 4 mmol/L repeat treatment)

When the person starts to feel better and if they are not due to eat a meal, make sure they eat some starchy food (eg a sandwich or a banana).

When the person starts to feel better and if due to make sure they eat some starchy food (eg a sandwich or a banana).

Stay with the person until they feel better.

Date	Time	BM Glucose reading (mmol/L)	Insulin	Dose	Site	Batch Number (only when new vial commenced – at least every 28 days)	Expiry Date – taken from vial at each administration	Comments	Signature
Diabetes management should be reviewed to prevent further episodes of hypoglycaemia. Contact the diabetes care provider.									
		required							
				Units					
				Units					
				Units					
				Units					
				Units					
				Units					
				Units					
				Units					

11.5 Appendix 5 Diabetes Champion Scope of practice.

DIABETES TEAM CHAMPION ROLE SCOPE OF PRACTICE COMPETENCY AND ASSESSMENT FRAMEWORK¹

AIM

The aim of the Diabetes team champion is to raise awareness of diabetic management with the team by supporting the team to:

1. Facilitate structured assessments and reviews of Diabetic patient on the case load the champion
2. Work with the patient's diabetic leads e.g. GP and practice nurse to support the patient's diabetic reviews and improve the health of diabetic patients.
3. Improve the Diabetic skills and knowledge of the District nursing team when managing diabetic patients.

The Champion role is not to replace or take responsibility of reviews of the Diabetic patients lead, the role will enhance care planning and patient care

OUTLINE OF PROPOSED PRACTICE OF DIABTETIC CHAMPION

This scope of practice applies to Registered General Nurses within Cumbria Partnership NHS Foundation Trust and defines the competencies required to undertake the role of Diabetic Champion within a team.

A Registered Nurse must have completed the full 3 day diabetes training package supplied by CPFT Diabetic specialist team. Currently this training is an RCN recognised training programme, this may be subject to change to meet changing skills and courses available in Diabetes management... The Registered Nurse will work with the team lead to provide leadership and direction in diabetes management 1. Ensure staff in the team has the competencies and knowledge to manage diabetes in the community, 2. To ensure that the patient's diabetes care plans are implemented and regularly reviewed 3. Any equipment used in diabetes management is in good working order processed are in place for the team to calibrated and assured as per manufacturers guidelines.

1. SCOPE OF PRACTICE FOR DIABETES CHAMPIONS IN TEAMS

Registered General Nurse will provide diabetes leadership locally providing a resource of knowledge at a team level. The nurse will understand their limitations and understand when and who to refer to. They will have the knowledge of diabetes pathways educating the local team in high standard of diabetes management.

Role development will be considered on an individual basis. Managers should nominate Registered General Nurses for additional training in diabetes. Applications will be considered on an individual basis by the team lead and Operational Manager. The Diabetes task and finish group (2016) anticipates that a diabetes champion in each District nursing team is required. It is anticipated that there will be requirement that other nursing teams will also require diabetes champion e.g. Community hospital inpatient units. This will be a local decision by team lead and operational manager.

- Understand What is Diabetes
- Knowledge and skills regarding Insulin and other Diabetes therapies.

This framework is supported by the HCA, clinical support worker and assistant practitioner Scope of Practice Policy approved for use in the Trust and must be completed for all new tasks, interventions and developments where healthcare support workers are taking on new activities. Please read the approved policy in conjunction with completing this framework.

- Target Glucose levels for individual patients.
- Management of patients with hypoglycaemia.
- Care of Diabetes and Illness
- Care of the elderly
- Complications of Diabetes acute and long term.
- Need for screening and assessment
- Have knowledge and skills to safely empowering the patient to support his/ her own diabetes

2.1 HOW WILL THE KNOWLEDGE AND SKILLS BE ACQUIRED e.g. work based learning, study sessions, formal course?

- Attendance of the Three day Diabetes Course identified and run by the diabetes specialist lead (CPFT). This is currently the RCN approved course
- The Registered nurse must be in a clinical role and manage individual diabetic patients care several occasions during their working week
- The Registered nurse will demonstrated their competencies by maintaining work book while attending the course and ongoing record of reflective practice.
- The registered nurse will attend at least two specific diabetes training sessions annually to maintain and / or demonstrate their updates by way of reading literature
- Some champions may have completed the accredited level 6 University Module diabetes, this will have been identified at the individual annual appraisal

3. HOW WILL PRACTICE BE ASSESSED?

Include the nature and number of direct observations of practice and assessment of underpinning knowledge, set against the agreed competencies

Reflective diary of practice should contain information about individual decision making, team discussion, appropriate involvement of GP, specialist team and other agencies.
Maintenance of resources made available to community nurse teams and evidence of cascading Diabetes care information to other team members that maintains patient safety.

3.1 WHAT UPDATES WILL BE REQUIRED, INCLUDING FREQUENCY OF UPDATE, AND WHAT ARE THE SYSTEMS IN PLACE TO ENSURE THESE ARE MAINTAINED?

- The registered nurse will attend at least two specific diabetes training sessions annually to maintain. A rolling training programme is facilitated by CPFT diabetes team or external diabetes training courses may be sought
- and / or
- demonstrate their updates by way of reading literature

AUTHOR OF THIS FRAMEWORK:

Quality and Safety leads Community Health Care Group
Diabetes Lead CPFT Specialist Care Group
Approved by the Diabetes Task and Finish Group 2016(including above plus, Clinicians,

Operational managers, Pharmacist, CLIC trainers, Lesson learnt facilitator)

DATE FRAMEWORK TO BE REVIEWED:

Approved Diabetes Task and Finish Group 22 August 2016

Annually or as Scope of Practice changes

Scope of Practice Remit: to undertake the role of Diabetes champion

**P = Pass R = Refer Please comment /advise action plan as applicable

1	Attend appropriate wound care training: Specify:	In attendance	Clinical lead/ supervisor	1	R**	P /
**Comments / Action Plan if applicable						
Supervisor sign:			Supervisee Sign:			
2	Explain the nature of the procedure to the patient and gain verbal consent	Direct observation	Clinical lead/ supervisor	1	R**	P /
				2	R**	P /
				3	R**	P /
				4	R**	P /
				5	R**	P /
**Comments / Action Plan if applicable						
Supervisor sign:			Supervisee Sign:			
3	Ensure the patient has been assessed and given adequate pain relief and that it has been effective before commencing the procedure	Direct observation	Clinical lead/ supervisor	1		P / R**
				2		P / R**
				3		P / R**
				4		P / R**
				5		P / R**

**Comments / Action Plan if applicable

Supervisor sign: _____ Supervisee Sign: _____

4	Assist the patient to remove clothing as necessary, maintaining privacy and dignity at all times. Ensure patient is in a comfortable position	Direct observation	Clinical lead/ supervisor	1	R**	P /
				2	R**	P /
				3	R**	P /
				4	R**	P /
				5	R**	P /

**Comments / Action Plan if applicable

Supervisor sign: _____ Supervisee Sign: _____

5	Referring to the care plan and instruction , collect the required appropriate equipment	Direct observation	Clinical lead/ supervisor	1	R**	P /
				2	R**	P /
				3	R**	P /
				4	R**	P /
				5	R**	P /

**Comments / Action Plan if applicable						
Supervisor sign:			Supervisee Sign:			
6	Decontaminate hands with liquid soap and water. Using the ANTT guidelines select appropriate guidance to adhere to e.g. Standard or Surgical Open dressings and apply protection e.g. apron	Direct observation	Clinical lead/ supervisor	1	R**	P /
				2	R**	P /
				3	R**	P /
				4	R**	P /
				5	R**	P /
**Comments / Action Plan if applicable						
Supervisor sign:			Supervisee Sign:			
7	Remove old dressings from wound noting presence of exudates, amount and colour. and dispose of old dressing as per trust policy	Direct observation	Clinical lead/ supervisor	1	R**	P /
				2	R**	P /
				3	R**	P /
				4	R**	P /
				5	R**	P /
**Comments / Action Plan if applicable						
Supervisor sign:			Supervisee Sign:			

8	Decontaminate hands with an alcohol-based hand rub	Direct observation	Clinical lead/ supervisor		R**	P /
				2	R**	P /
				3	R**	P /
				4	R**	P /
				5	R**	P /
**Comments / Action Plan if applicable						
Supervisor sign:			Supervisee Sign:			
9	Inspect wound noting the appearance of the wound bed and surrounding skin – identifying the need for onward referral to the registered nurse as necessary	Direct observation	Clinical lead/ supervisor	1	R**	P /
				2	R**	P /
				3	R**	P /
				4	R**	P /
				5	R**	P /
**Comments / Action Plan if applicable						
Supervisor sign:			Supervisee Sign:			
10	Open dressings onto sterile/ clean field dependant on ANTT guidance to be used	Direct observation	Clinical lead/ supervisor	1	R**	P /
				2	R**	P /
				3	R**	P /

				4	R**	P /
				5	R**	P /
**Comments / Action Plan if applicable						
Supervisor sign:			Supervisee Sign:			
11	Decontaminate hands with alcohol hand rub and apply gloves	Direct observation	Clinical lead/supervisor	1	R**	P /
				2	R**	P /
				3	R**	P /
				4	R**	P /
				5	R**	P /
**Comments / Action Plan if applicable						
Supervisor sign:			Supervisee Sign:			
12	Clean wound as necessary, using the agreed method set out in the patients care plan	Direct observation	Clinical lead/supervisor	1	R**	P /
				2	R**	P /
				3	R**	P /
				4	R**	P /
				5	R**	P /

**Comments / Action Plan if applicable						
Supervisor sign:			Supervisee Sign:			
13	Apply new dressing as per care plan and the manufacturers' instructions	Direct observation	Clinical lead/supervisor	1	R**	P /
				2	R**	P /
				3	R**	P /
				4	R**	P /
				5	R**	P /
**Comments / Action Plan if applicable						
Supervisor sign:			Supervisee Sign:			
14	Secure dressing as necessary, as per care plan and manufacturers' instructions	Direct observation	Clinical lead/supervisor	1	R**	P /
				2	R**	P /
				3	R**	P /
				4	R**	P /
				5	R**	P /
**Comments / Action Plan if applicable						
Supervisor sign:			Supervisee Sign:			

15	Dispose of waste in appropriate clinical waste bin as per Trust waste policy	Direct observation	Clinical lead/supervisor	1	R**	P /
				2	R**	P /
				3	R**	P /
				4	R**	P /
				5	R**	P /
**Comments / Action Plan if applicable						
Supervisor sign:			Supervisee Sign:			
16	Remove gloves and apron and decontaminate hands with soap and water	Direct observation	Clinical lead/supervisor	1	R**	P /
				2	R**	P /
				3	R**	P /
				4	R**	P /
				5	R**	P /
**Comments / Action Plan if applicable						
Supervisor sign:			Supervisee Sign:			
17	Assist patient to dress as necessary, maintaining patient's dignity. Ensure patient is comfortable	Direct observation	Clinical lead/supervisor	1	R**	P /
				2	R**	P /

				3	R**	P /
				4	R**	P /
				5	R**	P /
**Comments / Action Plan if applicable						
Supervisor sign:			Supervisee Sign:			
18	Document: dressing change, wound appearance, discharge odour etc... on the wound evaluation sheet and report findings to the registered nurse on duty	Direct observation	Clinical lead/supervisor	1	R**	P /
				2	R**	P /
				3	R**	P /
				4	R**	P /
				5	R**	P /
**Comments / Action Plan if applicable						
Supervisor sign:			Supervisee Sign:			
19	Identify the dressings stock remaining and secure supplies for future wound dressing changes.	Direct observation	Clinical lead/supervisor	1	R**	P /
				2	R**	P /
				3	R**	P /
				4	R**	P /
				5	R**	P /

**Comments / Action Plan if applicable

Supervisor sign: _____ Supervisee Sign: _____

20	Demonstrate an understanding of the legal categories of dressings used and how they should be stored	Questioning	Clinical lead/ supervisor	1	R**	P /
				2	R**	P /
				3	R**	P /
				4	R**	P /
				5	R**	P /

**Comments / Action Plan if applicable

Supervisor sign: _____ Supervisee Sign: _____

SUPERVISOR DETAILS

Print Name	Position	Date of Assessment	Signature

SCOPE OF PRACTICE NOTIFICATION

Intention DIABETES CHAMPION

Name..... Post.....

Department/ Ward

Dear Director of Nursing

I write to inform you that I have successfully completed the specific Scope of Practice Framework listed below:

.....
.....
.....

I confirm that I have received the relevant education and development to undertake these roles and that I have been judged competent to utilise these skills.

My line manager has agreed that the skills I have obtained are:

- Appropriate to my post and my responsibilities within this post
- Documented in the specific Scope of Practice Framework
- Confirmed by the evidence I have submitted in my personal file
- Subject to no less than a 12-month refresher in the areas of practice

I understand that in line with Trust policy I may be requested to show evidence of my continuing professional development.

Signature of Assistant Practitioner:

Signature Clinical Mentor/ Supervisor

Signature of Clinical Manager:

Date:

PLEASE RETAIN A COPY AND SEND COPIES TO
The Care Group Associate Director of Nursing
CPFT Director Nursing

11.6 Appendix 6 Elderly BGL guide



Assessment of the dependent/frail elderly with high blood Glucose

Targets for Care

•Symptom control (rather than recommended biochemical results)
Symptoms are more likely if the fasting blood glucose is over 11.0mmols/l.

'Individualisation of Glycaemic Management'; Diabetes in the Frail Elderly'
Regier, L, Canadian Family Physician May 2013 Vol 58, No 5, 543-546.

Eliciting Evidence of Hyperglycaemia

Questions to Ask:

- 1.Are there any **new** continence problems?
- 2.Is the frequency of nocturia increasing – how often do they pass water at night (bear in mind they may be on diuretics)?
- 3.Do they need to drink in the night or complain of dry mouth?
- 4.Do they have repeated urinary tract infections?
- 5.Are there any genital 'thrush' infections?
- 6.Do they have a slow healing wound or foot ulcer?
- 7.Is there evidence of weight loss over a period of time?
- 8.Are they becoming increasingly confused?
- 9.Do they feel well, or complain of general malaise?
- 10.Are they able to do their chores/self care as usual or do they feel too weary to bother?

Blood Glucose – over 20 mmols/l

The person feels well:

- Re-test 4-6 hours later
- If blood sugar is reducing, no immediate action
- Check a fasting blood glucose within 48 hours

Persistently for 24 hours and the person is **WELL**:

- Check MSU
- Ask GP/Doctor to re-assess treatment

The person is **UNWELL**:

- i.e nausea, vomiting, not eating, lethargic
- Report to Doctor as an urgent review**

Review regularly for a change in wellbeing or the development of other symptoms



Assessment of the dependent/frail elderly with high blood Glucose

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- i.e nausea, vomiting, not eating, lethargic
- Report to Doctor as an urgent review**

Review regularly for a change in wellbeing or the development of other symptoms

11.7 Appendix 7 Out of hours standard operating procedures.

Use and managing of prescription changes of the Prescription and administration booklet in and Out of Hours Period Community Nursing.

Principles:

- The Prescription should be Clear and legible without crossing out
- One Prescription should be written on the booklet page one, no additional second prescription booklet or green sheet(insulin) should be used
- The prescription and administration booklet must not be broken up, faxed or scanned.
- In hours the District Nurses will ensure that every patient on their case load on insulin has a blank replacement prescription/ administration booklet stored in the patients records at the back. They should also check that there is sufficient administration space throughout the out of hours period to be used.
- If the spare prescription and administration booklet is used this must be replaced by the Nurse at the next patient visit.

Out of Hours

- Blank replacement prescription and administration booklet is used by the medical practitioner (GP) from the community nursing records to write the new prescription.
Alternatively
- GP may use their own blank prescription and administration booklet supply which is either left in the patients home by the GP or the community nurse to pick up at an agreed point e.g. from CHOC local office
- At the next visit the Nurse must archive the old prescription and administration booklet and put the new current prescription and administration booklet into the records.
- The nurse must check the new prescription is clear, legible and the insulin the patient has matches the prescription.

11.8 Appendix 8 Blood glucose monitoring

Currently CPFT is reviewing its supply of equipment, ancillaries, internal quality control and external quality assurance as well as training and overarching governance of the use blood glucose monitoring equipment. This toolkit will be updated as progress is made.

Appendix 8

INSULIN INJECTION ADMINISTRATION BY Registered Nurse : COMMUNITY NURSING CARE PLAN

NHS Number		CHI Number			
Forenames		Surname		Address	
DOB		GP		Post Code	

DATE & TIME	PROBLEM	AIM	ACTION TO BE TAKEN
	Patient requires Insulin Therapy due to Diabetes Mellitus Type:	<p>Patient will receive medication as prescribed</p> <p>Family/carer will be aware of the symptoms of hypoglycaemia/hyperglycaemia and the appropriate treatment if the patient is in the home setting.</p>	<ol style="list-style-type: none"> 1. Gain consent and provide privacy and maintain dignity. If deemed to lack capacity to consent, care plan to be delivered in best interest as per the Mental Capacity Act 2. Blood glucose levels should be checked before every insulin dose administered depending on: <ul style="list-style-type: none"> -the stability of the patients' blood glucose control clinical assessment by the healthcare professional suggesting signs of hypo /hyperglycaemia 3. If the level is below 4mmol/L, hypoglycaemia should be treated. (see prescription chart for management algorithm) 4. If the patient is unwell or has a blood glucose over 13 and is ketone prone (ie Type 1 diabetic or a history of ketones) or over 17 if not ketone prone (e.g. Type 2 diabetes) check Blood or urine ketones. Exceptions to this should be documented in the patient's notes with clinical rationale. 5. Administer insulin injection as prescribed 6. Rotate site as guided in insulin prescription chart 7. Ensure that patient has access to food within an appropriate time frame- please refer to insulin information on prescription chart (page 2)

			<p>8. Record on insulin administration record within the patient notes</p> <p>9. Follow the Safe and Effective Use of Insulin in Community and Inpatient Settings Policy</p> <p>10. Monitor patient's general health, report and changes to the appropriate Clinicians.</p> <p>11. If patient is unresponsive or unable to take anything orally dial 999 for assistance</p>
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	Name	Designation	Signature
Care Plan discussed and agreed by patient			

Appendix 9

INSULIN INJECTION GIVEN VIA PEN ADMINISTERED BY ASSISTANT PRACTITIONERS/HEALTH CARE ASSISTANTS (Who have completed training & maintained annual competencies) COMMUNITY NURSING SERVICES CARE PLAN

NHS Number		CHI Number			
Forenames		Surname		Address	
DOB		GP		Post Code	

DATE & TIME	PROBLEM	AIM	ACTION TO BE TAKEN
	Patient requires Insulin Therapy due to Diabetes Mellitus Type:	<p>Patient will receive medication as prescribed</p> <p>Blood glucose Levels will vary from day to day, due to exercise, stress, illness, carbohydrate intake. Good glycaemic control is achieved with Blood glucose levels between _____mmol/L before meals, and _____mmol/L after meals.</p> <p>Hypoglycaemia occurs when blood glucose levels are below 4mmol/L. Hyperglycaemia which may require treatment occurs when blood glucose rises above 15mmol/L.</p> <p>Family/carer will be aware of the symptoms of hypoglycaemia/hyperglycaemia and the appropriate treatment if the patient is in the home setting.</p>	<p>Patient has been assessed by registered nurse as able to have their insulin administered by an Assistant Practitioner/ Health Care Assistant</p> <p>Insulin doses should not be omitted.</p> <p>If blood glucose levels are less than 4mmol/L, treatment for hypoglycaemia should be given. This should be 15-20g fast acting carbohydrate, such as 5-6 dextrose tablets, 150mls non-diet fizzy drink, 200ml fruit juice, 4 large jelly babies, 100ml Lucozade or 2 tubes of glucogel.</p> <p>Blood glucose levels should be re-checked in 10 minutes and further carbohydrates given as before if BG remains below 4 mmols. Repeat in 10 minutes cycles, maximum x3 cycles if BG remains below 4 mmol.</p> <p>Once the blood glucose level is above 4mmol/L, a carbohydrate containing snack (such as a sandwich or a banana) should be eaten, if a meal is not due. If a meal is due, insulin should be taken/given as prescribed and the meal eaten as normal</p> <p>If the patient does not recover after x3 cycle of rapid glucose treatment an emergency ambulance should be called for urgent treatment. Record in the patient's notes and report to the nurse in charge</p> <p>The Health Assistant Practitioner / Care Assistant will:</p> <ol style="list-style-type: none"> 1. Gain consent and provide privacy and maintain dignity. If deemed to lack capacity to consent, care plan to be delivered in best interest as per the Mental Capacity Act

			<ol style="list-style-type: none"> 1. Blood glucose Levels should be checked before insulin administration. If the level is below 4mmol/L, hypoglycaemia should be treated. 2. If blood glucose level is below 4mmol/L or above 13mmol/L seek advice from registered Nurse prior to administering insulin for further instruction and to see if ketone testing (blood or urine) is required. 3. Follow Trust policy for Assistant Practitioner / Care Assistant for administering insulin injections via a pen 4. Adhere to CPFT Guidelines for infection control 5. Administer Insulin injections Sub-cutaneously as prescribed, following Royal Marsden Guidelines for Sub-Cutaneous injections (Procedure 12.18) 6. Rotate site as guided in insulin prescription chart 7. Record on CPFT Documentation 8. Ensure that Patient has access to food within an appropriate time frame- please refer to insulin information on prescription chart (page 2) 9. Monitor patients' general health and report changes to the appropriate clinician. 10. If patient is unresponsive or unable to take anything orally dial 999 for assistance
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	Name	Designation	Signature
Care Plan discussed and agreed by patient			

12 RELATED TRUST POLICY/PROCEDURES

Record Keeping Policy NCUH code 2015

Medicines Policy

Health Care Assistant Administration of Insulin, via Pen device – Procedure and training.

Infection prevention CO/POL/002008

Health Records Management Policy

ACKNOWLEDGEMENTS

University Hospitals of Leicester NHS Trust