



Diabetes Management Guidelines and Policy 2017-2019

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**Diabetes Management Guidelines and Policy
Version Control Sheet**

Version	Section / Para / Appendix	Version / Description of Amendments	Date	Author / Amended by
1		New Policy	November 2017	
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Diabetes Management Guidelines and Policy

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Diabetes Management Guidelines and Policy

Procedural Document Statement

Statement:

Lincolnshire Community Health Service will develop policies to fulfil all statutory and organisational requirements. These will be comprehensive, formally approved and ratified, disseminated through approved channels and implemented.

Background

The purpose of this guidance is to implement a co-ordinated and uniform approach to the clinical management of Diabetes

Statement

Lincolnshire Community Health Service will develop policies to fulfil all statutory and organisational requirements. These will be comprehensive, formally approved and ratified, disseminated through approved channels and implemented.

Responsibilities

Compliance with the policy will be the responsibility of all Lincolnshire Community Health Service staff involved in delivering direct patient care or responsible for supporting those to deliver patient care.

Training

Directors/Heads of Service are responsible for making policy authors aware of the development and management process of all policy documents to be adopted by Lincolnshire Community Health Service

Dissemination

Website
Training Email Intranet
Team Brief / Newsletter

Resource implication

The policy has been developed in line with the NHS Litigation Authority guidelines to provide a framework for staff within NHS Organisations to ensure the appropriate production, management and review of organisation wide policies.

Section One - Diabetes Management Guidelines

What is Diabetes?

Diabetes is a chronic, metabolic disease characterized by elevated levels of blood glucose (or blood sugar), which leads over time to serious damage to the heart, blood vessels, eyes, kidneys, and nerves. The most common is type 2 diabetes, usually in adults, which occurs when the body becomes resistant to insulin or doesn't make enough insulin. In the past three decades the prevalence of type 2 diabetes has risen dramatically in countries of all income levels. Type 1 diabetes, once known as juvenile diabetes or insulin-dependent diabetes, is a chronic condition in which the pancreas produces little or no insulin by itself. For people living with diabetes, access to affordable treatment, including insulin, is critical to their survival. There is a globally agreed target to halt the rise in diabetes and obesity by 2025. WHO 2016

Types of Diabetes

Type 1 Diabetes

Type 1 diabetes develops when the insulin-producing cells in the body have been destroyed and the body is unable to produce any insulin. Insulin, a hormone (chemical messenger) helps the body to use glucose to produce energy and when it is absent; the body has to break down fat and protein instead, which can cause weight loss. This also causes glucose to build up in the blood which is passed out in the urine.

We do not understand why this happens but the most likely cause is the body having an abnormal reaction to its own cells (autoimmune reaction) which may have been triggered by a virus or infection.

Type 1 Diabetes is managed using daily insulin either delivered by injection or by a pump. People with Type 1 account for about 10% of all adults who have diabetes and it typically appear before the age of 40 and usually it is found in childhood. It is predominantly managed in Primary Care with support from a Consultant Endocrinologist and Diabetes Specialist Nurses (usually in secondary care).

Type 2 Diabetes

Type 2 diabetes is usually found in people over the age of 40 and is more common in people of South Asian origin who may present at a younger age. It is becoming more common in children and young people generally.

In Type 2 diabetes there is not enough insulin (or the insulin isn't working properly), so the cells are only partially unlocked and glucose builds up in the blood.

Type 2 diabetes accounts for between 85 and 95 per cent of all people with diabetes and is treated with a healthy diet and increased physical activity. In addition to this, medication and/or insulin are often required.

(Diabetes UK)

Gestational Diabetes

Pregnancy hormones can sometimes cause women, usually in second or third trimester to get diabetes. This is usually short term and resolves after giving birth. It will be managed in partnership with midwifery team.

Other Types of Diabetes (not included in this guideline)

There are also some rarer forms of diabetes the diagnosis and management is not included in this guideline.

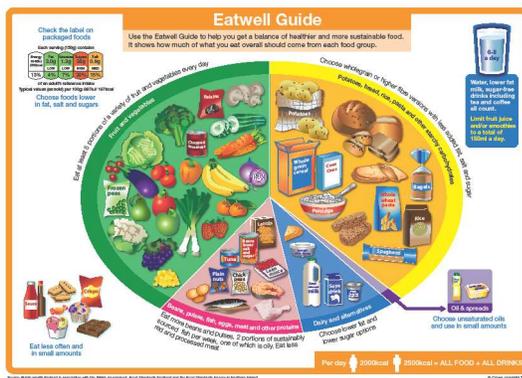
- Maturity onset diabetes of the young (MODY)
- Neonatal diabetes
- Wolfram Syndrome
- Alström Syndrome

Preventing Type 2 and Reducing Risk of Complications of Diabetes

In the majority of cases of type 2 diabetes, it is brought on by lifestyle factors which can be modified to help prevent diabetes.

These are the same lifestyle choices that can be managed by people with Type 2 Diabetes to help prevent complications of having diabetes like cardiovascular disease, kidney disease and eyesight problems.

We recommend eating a healthy portion-controlled diet, being active and avoiding tobacco use.



Information about assessing the risk of getting Type 2 Diabetes and making healthy lifestyle choices can be found at:

<http://www.nhs.uk/Livewell/Pages/Livewellhub.aspx>

<https://www.diabetes.org.uk/Global/guide-to-diabetes/prevention/KYR%20lock%20up%20Blue%20text-300x272%20updated%20logo.png>

<http://www.diabetes.co.uk/diabetes-prevention/>

NB. There is currently a diabetes prevention programme available in Lincolnshire which can be accessed via GP Practice.

Recognising Diabetes

It is important to diagnose diabetes as early as possible. 50% of people have at least one complication at diagnosis (UKPDS, 1990).

The following people are at higher risk of developing diabetes:

- White European people aged over 40
- People from Black, Asian and minority ethnic groups aged over 25 with first degree relative with diabetes
- BMI >30 *or* BMI 25-30 who have a sedentary lifestyle *or* South Asian people with BMI >23
- Women with Polycystic Ovary Syndrome (PCOS)
- Cerebrovascular disease, peripheral vascular disease or hypertension/hyperlipidaemia.
- Patients on prolonged steroid therapy
- Patients on anti-psychotic drugs
- Cardiovascular Disease

Signs and Symptoms of Diabetes:

- Excess thirst
- Polyuria (especially if nocturia)
- Weight loss
- Urinary incontinence
- Tiredness
- Pruritus vulvae / recurrent candidiasis
- Recurrent infections / abscesses
- Balanitis
- Blurred vision / changes in visual acuity
- Erectile dysfunction (ED)
- Pain / numbness / foot ulcers
- Non-specific or unexplained symptoms

How to Diagnose Diabetes

	Diabetes	High Risk of Diabetes	Normal	Second Test to confirm
HbA1C	<p>≥48mmol/mol</p> <p>6.5%</p>	<p>42- 47 mmol/mol</p> <p>6-6.4%</p>	<p><42mmol/mol</p> <p><6%</p>	<p>Asymptomatic patients should be re-tested within 2 weeks with clear labelling on specimen request that this is to repeat for diagnosis of diabetes.</p> <p>BOTH test results must be ≥48mmol/mol to confirm diagnosis of diabetes. If second test is lower then it is used.</p>
Fasting glucose	≥7mmol/l	6.1-6.9mmol/l	≤6mmol/l (WHO)	Yes – unless classic diabetes symptoms
2 hr glucose on Oral Glucose Tolerance Test	≥11.1mmol/l	7.8-11mmol/l	≤7.7mmol/l	Rarely Used
Random glucose	≥11.1mmol/l	-	-	-

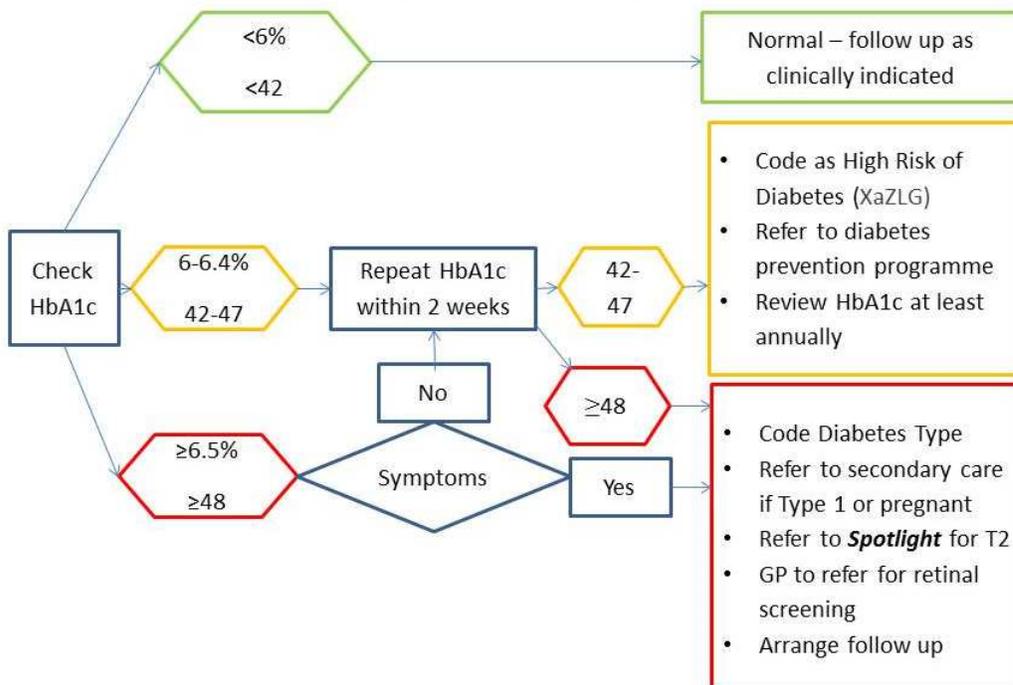
Which Test is Best?

In Lincolnshire we recommend HbA1c – except in those groups where HbA1c results may be unreliable and blood glucose should be used in the following:

- Children
- Pregnancy
- Acutely ill
- Abnormal haemoglobins, anaemia or altered red blood cell lifespan

Capillary finger prick tests or glycosuria may indicate the presence of diabetes but are not used to diagnose diabetes.

Algorithm for Diagnosis of Type 2 Diabetes Using HbA1C Testing



Supporting People Diagnosed with Type 2 Diabetes

- Offer structured education programme within one year of diagnosis
- In Lincolnshire LCHS currently provides this education – it is referred to as SPOTLIGHT.
- Spotlight fulfils the nationally recommended criteria by inviting adults with type 2 Diabetes and their family member or carer to attend two evidence-based educational sessions that support people to manage diabetes.
- The supporting booklets are attached below in pdf format:



NHS Spotlight on
Diabetes Session 1 A



NHS Spotlight on
Diabetes Session 2 A

Good Practice Advice

- Work with patient and family/ carer to set individual treatment plan and targets
- If fasting plasma blood glucose >15mmol consider oral hypoglycaemic agent early
- Educate on monitoring blood glucose and ensure plan includes advice on what to do if results are not within range agreed
- Plan monitoring and titration with HbA1c review every 3-6 months
- Best Practice Target for newly diagnosed Type 2 Diabetes is 6.5% (48mmol/mol)

Review medication and strategy if HbA1c is significantly above target (>58mmol/mol) and consider early initiation of insulin if indicated – see attached advice from Leicester to support decision-making.

All patients should have a care plan based on the discussion and agreements made with health and social care teams. The Care Plan will contain the following:

- Who is responsible for the actions identified
- Self-management strategies
- Agreed parameters for blood glucose monitoring results and frequency of testing
- An escalation plan that contains details of who to contact if results are outside expected range or health state or carer support changes



Decision Tree for Early Insulin Initiation

Management of Diabetes with Oral Therapies is managed by Primary Care Services via GP or Practice Nurse.

For information on choice of drug therapy refer to local primary care guidelines and prescribing advice as below:

<http://www.lincolnshirejointformulary.nhs.uk/>
<https://www.nice.org.uk/guidance/ng28/resources/algorithm-for-blood-glucose-lowering-therapy-in-adults-with-type-2-diabetes-2185604173>

Criteria for Referral to Community Diabetes Specialist Nurses

- Insulin initiation / GLP 1
- Recurrent Hypoglycaemia on insulin
- Poor glycaemic control on insulin
- High steroid with hyperglycaemia
- Terminal illness and unstable blood glucose levels
- Complex diabetes care requiring DSN support

Criteria for Referral to Secondary Care

- Antenatal
- Adolescent and Young Diabetics
- Insulin Pump / Complex Diabetes
- Renal Clinic (CKD 4 on Gliclazide or insulin)
- MDT Footcare
- Inpatients
- Select Education programme for newly diagnosed Type 1 diabetes

RECOMMENDATIONS FOR BLOOD GLUCOSE MONITORING & FREQUENCY

For policy and procedures relating to capillary blood testing refer to pages 24-32.

Nursing techniques are to be consistent and serve as a 'good practice' model to the patient.

The patient must be prepared for blood glucose monitoring by full explanation and by having all questions answered satisfactorily.

The registered nurse will be responsible for assessing the frequency of blood glucose testing

Where treatment for diabetes has been changed or is being assessed, or a patient has an intercurrent illness, blood glucose should be measured before breakfast, before lunch, before evening meal and before bed, this equals one profile.

If steroids are required to treat illness, the following leaflet is useful to support patients http://trend-uk.org/wp-content/uploads/2017/02/Diabetes_and_steroid_leaflet_02-16.pdf

If diabetes is stable then the frequency of blood glucose monitoring should be agreed between the patient and Diabetes Specialist Nurse/ Practice Nurse/ GP. Some guidance is available in Lincolnshire West CCG GP Guidelines adopted in 2016 and there is also a National Consensus available.

http://trend-uk.org/wp-content/uploads/2017/02/170106-TREND_BG_FINAL.pdf

Patients should be encouraged to undertake their own blood glucose monitoring when possible.

If patients require regular blood glucose monitoring in the community it is recommended the community nursing team use the patient's own meter unless the patient is more unwell than usual. If patient is unwell we recommend using the community team's Freestyle Neo meter with the Freestyle Optium test strips for greater accuracy. can then be requested on prescription.

The frequency of blood glucose monitoring in people with diabetes who are reaching the terminal stages of their disease process must be reviewed on an individual basis. Discussion should take place with the individual and the healthcare professional/ team assisting with their management throughout the terminal stages and advanced care planning should take place. For further advice please consult the Algorithm for End of Life Diabetes Care attached



Algorithm for End of Life Diabetes Care.doc

For further guidance refer to

http://trend-uk.org/wp-content/uploads/2017/02/End_of_Life-Supplement.pdf

http://trend-uk.org/wp-content/uploads/2017/02/End_Of_Life-clinical-recommendations.pdf

http://trend-uk.org/wp-content/uploads/2017/02/End_of_Life-Diabetes-Care-Strategy.pdf

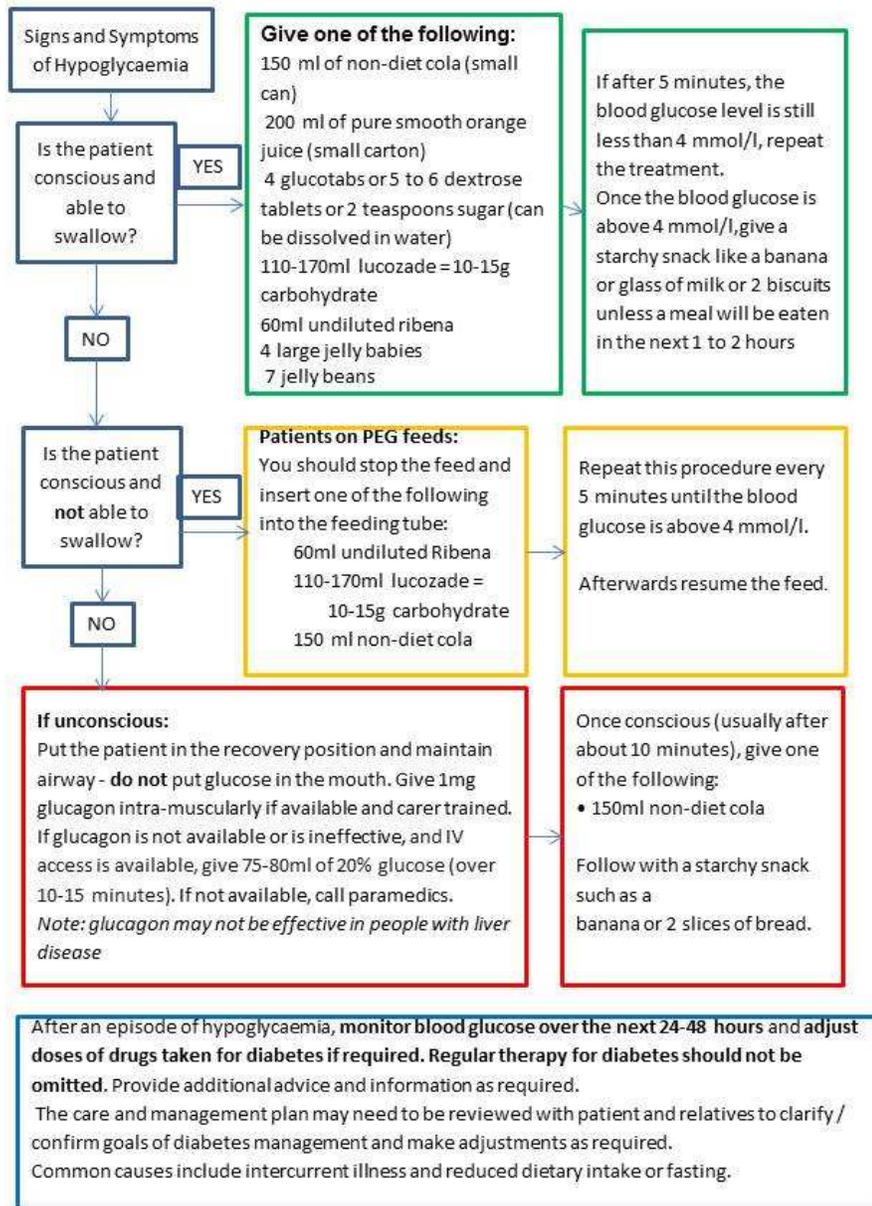
Recognising and Managing Hypoglycaemia

Patients who are injecting insulin or taking some oral hypoglycaemic agents may be at risk of hypoglycaemia (hypos). Hypoglycaemia is the commonest side effect of insulin and sulphonylureas in the treatment of diabetes (Diabetes UK, 2011). Hypoglycaemia should be excluded in any person with diabetes who is unwell, drowsy, unconscious, unable to co-operate, or presenting with aggressive behaviour or seizures.

<p>Symptoms that may indicate hypoglycaemia</p> <p>NB: Some people do not experience early signs – this is more common in people who have had diabetes for a long time</p>	<p>Early signs:</p> <ul style="list-style-type: none"> Sweating heavily Feeling anxious Trembling and shaking Tingling of the lips Hunger Going pale Palpitations Behaving oddly, unusually aggressive or tearful Having difficulty in concentrating Slurred speech Headache 	<p>Later signs:</p> <ul style="list-style-type: none"> Impaired cognitive function Drowsy If not treated can lead to fits, loss of consciousness and death
<p>Drugs that increase risk of hypo</p>	<ul style="list-style-type: none"> Sulphonylurea (e.g. Gliclazide, Glipizide) Prandial Regulators (e.g. Nataglinide, Repaglinide) Insulin Addition of other non-insulin therapies to Sulphonylurea or Insulin 	
<p>Other factors that increase risk of hypo</p>	<ul style="list-style-type: none"> Inadequate blood glucose monitoring Reduced carbohydrate intake, e.g. coeliac disease, gastroenteritis Weight loss /Poor appetite/erratic eating pattern Renal deterioration or dialysis Inadequate management of hypo / history of severe hypo or nocturnal hypoglycaemia not recognised Tight glycaemic control Impaired hypoglycaemia awareness 	<ul style="list-style-type: none"> Liver impairment Dementia Frailty or Older age Terminal illness Increased exercise Irregular lifestyle Alcohol Early pregnancy Breast feeding Lipohypertrophy of injection sites Ad hoc injection rotation
<p>Common causes of hypo</p>	<ul style="list-style-type: none"> Delayed or missed meals / fasting / Reduced appetite Drinking alcohol without food or too much alcohol Increase or unplanned activity/ exercise Higher than required dose of Blood glucose lowering drug(s). Impaired renal function 	
<p>Hypoglycaemia at end of life</p>	<ul style="list-style-type: none"> Medicines Management Review using START STOP principles Aim for symptomatic relief and work with patient, carers, community, palliative care, diabetes teams and GP to tailor therapy to achieve this. Identify if at risk of hypoglycaemia and take action to address this. Do not assume loss of consciousness is end of life – check for hypo. 	

Treating Hypoglycaemia in the Community

Management of Hypoglycaemia



Useful Supporting Information for Patients and Carers on Hypo Recognition and Management, Diabetes and Steroids, Sick Day Rules, Ramadan and Driving can be found on last page of guidelines.

Hypoglycaemia (Hypos) and Driving Advice (adapted from local, Trend and Leicestershire guidelines)

Sometimes complications can affect ability to drive and has the potential to cause accidents as a result of hypoglycaemia. The following advice aims to reduce the risk of this happening.

- We recommend Blood glucose levels should always be more than 5 mmol/l in line with the DVLA recommendations.
- Always test **before** driving due to risk of hypos whilst driving
- Plan for long journeys and take regular breaks and test 2 hourly
- Always carry glucose in the car that is easily accessible

Advice to be given to patients in case they experience a hypo whilst driving:

1. Stop car as soon as possible
2. Remove keys
3. Move to the passenger seat if safe
4. Treat the hypo
5. Do not to drive for at least 45 minutes following a hypo

'Hypos' and driving

Informing the DVLA

- By Law Group 1 driver (car/motorcycle) who has had two or more episodes of hypoglycaemia requiring assistance from another person at any time (including when sleeping) in a year, must inform the DVLA, and be advised not to drive. In these cases the Licence will be withdrawn for 1 year following the first episode.
- By Law Group 2 driver (bus/lorry) with one or more episode(s) of hypoglycaemia requiring the assistance of another person in the previous 12 months must inform the DVLA and be advised not to drive. They must also tell the DVLA if they or their medical team feels you are at high risk of developing hypoglycaemia. www.dvla.gov.uk/dvla
- If a doctor is aware that a patient is not fit to drive, they should advise the person not to drive and to notify the DVLA. Under General Medical Council guidelines if the patient does not do this the doctor must notify the DVLA (ref: www.gmc-uk.org/news/27477.asp). This will be documented in the patient's notes. The DVLA will make the decision as to whether to revoke/renew a licence
- If the doctor has documented concerns about fitness to drive, the patient's insurance may not be valid and the patient should be made aware of this.

The Safe Driving and the DVLA leaflet can be given to the patient or used for advice – a link is available on last page of guidelines.

Initiation of GLP-1 Injectable therapies

People with type2 diabetes may require treatment with GLP-1 therapies to manage their condition when insulin may not be the most appropriate choice in treatment due to potential further weight gain.

Recently the embargo of prescribing a GLP1 with insulin has been lifted for three of the four GLP1 drugs (Exenatide, Liraglutide, Lixisenatide and Dulaglutide) . Thus enabling patient receiving a basal insulin only to commence this therapy or if already taking a GLP1 can be introduced.

The need to promote patient independence and choice as well as using safe, effective and appropriate use of resources is recognised by LCHS.

There is now an expectation that community nurses with the appropriate diabetes management skills and competencies will be involved in the management of type 2 diabetes using GLP-1 injectable therapies within the community setting.

Whilst the guidelines within this policy will provide the information for safe, sound practice, the nurse must holistically assess the individual patient's needs, based upon their circumstances.

Responsibilities:

It is the responsibility of every diabetes specialist nurses who are employed by LCHS and are required to treat patients with type 2 diabetes to be familiar with this guideline.

Registered nurses in administering any medicines, in assisting with administration or overseeing any self-administration of medicines must exercise professional judgement, apply knowledge and recognise their professional accountability as per NMC Standards for Medicines Management (2008).

Diabetes specialist nurses involved in the initiation of GLP-1 injectable therapies will be responsible for maintaining and updating their knowledge and practice. Registered nurses are responsible for recognising any limitations in their knowledge and competence and declining any duties, they do not feel able to perform in a skilled and safe manner (NMC The Code – Standards of Conduct, Performance and Ethics for Nurses and Midwives 2008).

Assessing Suitability for GLP-1 Therapy

The assessment process should include:

Discussion with the patient regarding their diabetes management and agreement as to whether they wish to make changes to their diabetes management plan. This discussion should include the following :-

- Patients understanding and consent
- Lifestyle including occupation, functional ability and driving requirement
- Medication including the consideration of any drug interactions if using a GLP-1.
- Recent blood results including blood glucose profiles, HbA1C, U&Es & LFTs
- BMI

- Urinalysis
- Documentation of known complications of diabetes
- Past medical history
- Signs of acute illness e.g. chest infection.
- Discussion of potential side effect from mild transient to the more severe serious.
 - Mild: Gastrointestinal related, bloating, nausea, sickness and diarrhoea.
 - Serious: Persistent vomiting, pancreatitis, renal failure and liver function abnormalities.
 - Potential interaction if taken at the same time as other drugs i.e (PPI) Proton Pump Inhibitor
 - Advice to be given if patients require antibiotics, best to take one hour before or three hours after the antibiotics. Patients taking warfarin are advised to have INR checked a week after starting the GLP1 so adjustments can be made if required.

•
 Dates must be set for repeat reviews and discussion of blood test results. Patients should be made aware of the possibility of discontinuation if ineffective due to Beta Cell failure.

The outcome of the assessment must be clearly documented in the System One patient record; ensuring evidence for clinical decision making and development of the diabetes management plan is recorded.

Healthcare professionals involved in the development of the patient diabetes management plan must ensure that any changes to it is documented and communicated effectively to the wider healthcare team.

Indications for use of GLP-1

- Hyperglycaemia, that is, an inadequate blood glucose control with a HbA1C > 59mmol/mol or 7.5%.
- BMI > 35 Kg/m² and weight related psychological or medical problems. BMI <35 Kg/m² and insulin would be unacceptable for occupational reasons or weight loss would benefit other significant obesity related problems (National Institute for Clinical Excellence, 2009).
- BMI >35 Kg/m² already taking a basal insulin and control is suboptimal with risk of further weight gain if insulin therapy is intensified.

Guidance on starting GLP-1 injectable therapy

The most appropriate regimen for the patient and their lifestyle should be chosen in collaboration with the patient. The choice of drug will require careful selection that also takes into account concurrent therapies, renal function, comorbidities, functional ability and care needs.

Consideration will be given to referral to Healers to help support lifestyle changes and improve motivation by group support.

Blood glucose targets should be agreed with the individual.

Diabetes UK (2009) targets used as a guide only :-

- Pre meals 4-7 mmol/l
- Post meals 6-8 mmol/l
- HbA1C 53 mmol/mol or 7%

Education:

The prescriber will ensure that the patient receives a full education package according to the diabetes template on Systm One. Patients should be given the relevant information packs provided by the pharmaceutical company:

Exenatide- Byetta Information Pack

Liraglutide (victoza) Freshstart

Lixisenatide(Lyxumia)

What is Lyxumia & how to use your Lyxumia pen.

Summary of GLP-1 Injectables at the current time as an indication of choice available

NB. Information on cost varies and up to date information on cost comparison can be found through Lincolnshire <http://www.lincolnshirejointformulary.nhs.uk> or www.lincolnshire-pacef.nhs.uk

Drug	Frequency /Timing	License	Cost per month
Exenatide (Byetta)	Twice daily One hour prior to breakfast and evening meal – at least 7 hours apart	With any basal insulin	£68.24
Bydureon	Once weekly (modified release from of Byetta)	Not licensed with any basal insulin as yet	£73.36
Liraglutide (Victoza)	once daily injection, does not have to be given before food	Now licenced to be used with any basal insulin including Tresiba U-200 insulin which is currently only licenced for use in secondary care).	£78.48
Lixsienatide (lyxumia)	Once daily with main meal of the day	Licensed for use with any basal insulin	£54.14
Dulaglutide (Trulicity)	Once weekly	Licensed for use with any insulin	

Caution: If patient are already taking triple therapy i.e Metformin, sulphonylurea and a basal insulin, when a GLP-1 is introduced it is recommended that the sulphonylurea be discontinued due to risk of hypoglycaemia. Quadruple therapy would need to be under the supervision of a GPWSI or Secondary care consultant.

For GLP-1 Treatment Pathway – see page 33

Managing Administration of Insulin in the Health and Social Care Environment

A number of new initiatives are required to support the administration of insulin in Lincolnshire due to the rising number of people requiring this therapy.

The first principle is to support people to manage their diabetes themselves and will require support and education to enable them to achieve this.

Where self-care is not possible a review will be undertaken with the patient and carers to seek the best strategy to support as much independence as possible whilst ensuring robust support where this is not.

Clinical teams will undertake caseload reviews regularly to ensure the best care is being provided by a team which collaborates to achieve excellent patient outcomes.

The Diabetes UK "How to Guide#3" will be used to ensure the best advice on how to achieve this is embedded into local caseload review processes.

The administration of insulin will be expanded to include unregistered care staff and guidance on training and competences is included. This is anticipated to significantly improve the quality of care for residents of Lincolnshire as it will provide increased flexibility to provide timely therapy.

Administration of Insulin Injections

People with Type 1 Diabetes require insulin therapy within 24 hours of diagnosis of diabetes which will continue for life

People with Type 2 Diabetes may be considered for insulin therapy for the following reasons:

- Failure to reach glycaemic targets using diet and non-Insulin therapies (NICE NG28)
- Symptomatic e.g. rapid weight loss, polyuria, nocturia
- Gestational diabetes in some circumstances (managed in specialist care)
- Steroid induced diabetes (see "Insulin and steroid " advice leaflet page7)
- Post myocardial infarction in specific circumstances
- Intolerant to non- insulin therapies
- Acute neuropathies such as femoral amyotrophy

Registered and Non-Registered Care Professionals may be required to administer insulin or GLP-1 injections or teach patients / carers how to administer these drugs using pen devices or U100 insulin syringes and vials.

In order to ensure this is achieved safely and effectively, all staff undertaking this role must have accessed appropriate training and achieved competency as defined in section 2.

Training will include the following:

- Diabetes Awareness
- Blood Glucose Monitoring
- Administration of Insulin
- The safe use of insulin (e-learning available on national patient safety suite online)

Training will be delivered by Diabetes Specialist Nurses / Diabetes Link Champions
Assessment of Competence carried out by appropriately trained Registered Nurses / Diabetes Link Champions.

Annual update and review of Competence is mandatory for those undertaking this role.

Types of Insulin

- Fast acting Insulin (clear) – e.g. Novorapid/ Apidra / Humalog given immediately before, during or immediately after food
- Short acting Insulin (clear) – e.g. Actrapid / Humulin S 20 to 30 minutes before food
- Intermediate / medium acting Insulin (cloudy) – e.g. Insulatard / Humulin 1 30 minutes before food
- Mixture of short and medium acting Insulin (cloudy) – e.g. Insuman combi 25/ Humulin M3 given 20 to 30 minutes before food
- Mixture of fast and medium acting Insulin (cloudy) – e.g. Novomix 30 / Humalog Mix25 given immediately before, during or immediately after food
- Long acting Insulin (clear) – e.g. Detemir / Glargine given at the same time each day (within an hour)
- Degludec (Tresiba)- only available in pen device- contact your local Diabetes Specialist Nurse for advice
- NB: Some insulins come in a range of super strengths, examples are as follows:
 - Insulin degludec – u100 and u200
 - Insulin glargine u100 and u300
 - Insulin lispro (Humalog) u100 and u200)

**NB: INSULIN COMES IN SEVERAL STRENGTHS – IT IS VITAL TO CHECK DOSE AND STRENGTH TO AVOID UNDER OR OVERDOSAGE
NEVER DRAW INSULIN FROM A PEN OR CARTRIDGE**

Methods of Injecting Insulin

- With a syringe and needle using Insulin from a vial
- With a cartridge pen device and needle – not recommended
- With a pre-filled pen device and autocover safety needle
- Continuous Insulin pump (secondary care only)

For Injection Technique Guide – Please see Appendix 5 - Procedure for Administration of Insulin.

For further information we recommend accessing:

www.leicesterdiabetes.org.uk

www.fit4diabetes.com

www.diabetes.co.uk

www.diabetes.org.uk

Important Advice on How To Reduce The Risk of Errors When Administering Insulin

- NEVER DRAW UP INSULIN FROM A PEN DEVICE OR CARTRIDGE
- All prescribed insulin must be recorded as units; no abbreviations to be used in any documentation
- Nursing notes must always be checked before administering insulin to ensure the correct dose and type of Insulin are given. Insulin doses may have been changed since the nurse last saw the patient, **recheck insulin prescription dose against the drawn up insulin prior to administration.**
- Nursing notes must also be checked to see if any other nurse has been and administered the Insulin already. The patient should be told what you are giving and the amount of units
- Due to the high risk of needle stick injuries Pen devices should only be used with a standard insulin pen needle if a patient is able to remove the needle from the device. In this instance a needs risk assessment must be completed by the case manager and advice sought from the Community Diabetes Specialist Nurse as necessary.
- It is safe to use a pen device if an Autoschild duo needle (BD product) is used and is available on prescription. This device covers the needle both before and after use. Ensure you have had adequate training – contact your diabetes specialist nurse.
- If a Pen device is no longer used by the patient and care staff are administering the injection all Pens are to be removed and put in sharps container or returned to the pharmacy. Note please, some insulins only available in pens therefore would need to ensure autocover needle available if being administered by care staff.
- Insulin that is in use to be kept out of the fridge in a small container with 1 of each Insulin being used, no extra Insulin in this container
- Insulin once started will keep for 1 month out of the fridge the expiry date to be put on the vial when first used
- All other Insulin to be kept in the fridge clearly marked
- When Insulin is available in vials and cartridges only vials to be used
- When preparing the Insulin each vial must be checked against the prescription to ensure the right Insulin and dose is being prepared
- If the insulin is being drawn up from a vial then U100 Insulin syringes only to be used: the nurse to ensure adequate supply is available in the patients home, residential home or community hospital.
- Document site given and ensure adequate site rotation to avoid injection site problems (lipohypertrophy, lipoatrophy)

Blood glucose monitoring

The frequency of blood glucose profiles should be discussed and agreed with the Community diabetes specialist nurse/ practice nurse/ GP who is managing the patient's diabetes. Please see guidance on blood glucose monitoring on page 7.

Hypoglycaemia

If the patient is unwell when visiting to administer insulin, check blood glucose level and if below 4 mmol/l treat the hypoglycaemic episode as per Hypoglycaemia Recognition and Treatment Guidelines on Page 16.

Recheck blood glucose level administer prescribed dose of insulin

If the patient is having recurrent hypoglycaemic episodes contact the GP/ Practice nurse/ Community diabetes specialist nurse to review treatment plan.

Blood Glucose Monitoring by Health Professionals and Care Workers Guideline and procedure document to be followed by all staff supporting the monitoring and management of diabetes.

SECTION 2 – Policy and Procedural Guidance

Blood Glucose Testing Training Responsibilities and Plan

The Diabetes Specialist Nurse Team will advise on training required and identify appropriate training programmes or design bespoke training programmes to include clearly defined outcomes to support competent practice. Annual updates are required and it is expected that Clinical Team Leaders and Managers will release staff to enable maintenance of competency appropriate to role.

To facilitate ongoing training and update, a link nurse system will ensure that at least two nurses in each team will have an interest in diabetes and be able to cascade information and training as required in locality. **Annual updates and competency re-assessment will fall under the remit of the link nurse.**

Link Nurses will be required to attend additional training and regular updates as set by DSN team. Further Information about Diabetes Link Nurses can be found at <J:\2016-2017\LCHS\Diabetes Guidelines 2016\Role of Diabetes Link Nurse.docx>

In the last decade there has been a rapid increase in the scope and frequency of "Point of Care" or extra-laboratory pathological testing. There have also been an increasing number of reports of unreliable results causing a risk to patients. These unreliable results have involved use of faulty and ill-maintained equipment, unsatisfactory analytical technique and inappropriate testing due to lack of understanding of the technology and pathology involved. The Department of Health has issued at least two Hazard Notices concerning the potential risk to patients and the various professional bodies involved have all recognised the need for guidance and control in this area. **{HC (Hazard) (89) 31 and HC (Hazard) (87) 13}**

To practice competently, you must possess the knowledge, skills and abilities required for lawful, safe, and effective practice without direct supervision. You must acknowledge the limits of your professional competence and only undertake practice and accept responsibilities for those activities in which you are competent. **Nursing and Midwifery Council (2002)**

LCHS is committed to providing education and training to ensure that users of medical devices have the necessary clinical and technical knowledge, skill and competencies to safely and effectively fulfil their duties. Members of staff have a personal responsibility not to use medical devices if they are not competent to do so, unless adequately supervised.

The Medical Devices Policy is available at:

<https://staff.lincolnshirecommunityhealthservices.nhs.uk/patient-safety/medical-devices>

NB: Blood glucose strip analysis may only be used as a monitoring and screening tool. Diagnosis and treatment decisions can be made only after laboratory confirmation of screening results.

In order to improve the quality of blood glucose testing within LCHS materials are standardised across sites, training is provided and quality assurance/control procedures are in place.

Quality Control for Blood Glucose Meters

Type of QC	Frequency and Recording of Results	Supplier of Solution	Troubleshooting / Issues
Internal	<p>Daily – when in use Weekly – in low use areas If the meter is not used frequently then it should be QC.d prior to use.</p> <p>*Check test strips expiry date QC solutions should be checked for expiry date and changed every 3 months</p> <p>All tests to be recorded in QC Log Book</p> <p>QC Log books must be kept locally for 7 years and should not be archived</p> <p>Follow manufacturers guidance when using patient's own meters and QC solutions</p>	<p>Abbot Diabetes Care</p> <p>Contact Details to be kept in meter workstation box</p> <p>Local supplies of IQC solution may be held locally in community hospitals</p>	<p>If a problem is identified, the meter must not be used for patient testing until the issue has been identified and resolved.</p> <p>Problems may relate to either test strips or meter.</p> <p>CONTACT ABBOTT DIABETES CARE FOR ADVICE</p>
External	<p>4 Weekly</p> <p>Horse blood sample sent to each meter holder (with written instructions on how to use and how to log results onto the Path Links website</p> <p>SAME DAY TESTING IS HIGHLY RECOMMENDED TO AVOID NEED FOR REFRIGERATION</p> <p>If this cannot be avoided then the sample <u>must be stored in a specimen fridge</u> and used within 5 days</p>	<p>Path Links Scunthorpe Hospital</p> <p>Contacts: Nlg-tr.PointofCare@nhs.net 01724 282282 ext. 2513. Goole Path Lab 01405 720720 ext. 4024.</p>	<p>Poor performance: If two returns fall outside the analytical limits, meter user will be contacted to discuss this. If, on the next return, there is no improvement the meter should be replaced.</p> <p>Failure to return EQA: If there is failure to return EQA on two occasions the meter user will be contacted to discuss and the meter may be removed until further training has been given.</p>
EQA Instructions	<p>EQA provides confidence in the accuracy of the test results and their application to patient management via monthly analysis of samples circulated by Path Links at Scunthorpe Hospital.</p> <p>These samples contain a known glucose concentration which is varied from month-to-month. Each meter user returns results to the laboratory by submitting data to http://nww.nlg.nhs.uk. Once logged onto homepage, select the point of care icon in quick links on the right side of the screen. Select the link to the glucose meter EQA scheme from the Point of Care tool bar (top screen) and enter your meter ID number in the field provided. The page displayed now is for your specific meter and location. Check the details are correct before filling in the blank fields. All entry fields must be completed before you submit the result. Upon submission the page will display a successfully submitted graphic. A performance report is produced for each meter.</p>		

Blood Glucose and Ketone Testing Equipment

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Chief Executive: Andrew Morgan

Equipment / Product Required	LCHS Approved Product	Where to obtain supply
Blood Glucose and Ketone Test Meters for Professional Use	<p>Freestyle Optium H Meter (due to be discontinued 2017)</p> <p>Freestyle Optium Neo H Meter</p>	<p>Stocks may be obtained locally at some sites i.e. Louth Hospital site urgent care centre</p> <p>Further supplies can be obtained from the Abbott Diabetes Care Representative.</p> <p>All meters must be placed on the medical device Register and registered at Goole Pathlinks for the external quality assurance samples</p>
Blood Glucose Test Strips for Professional Use	<p>Freestyle Optium H (for use with the freestyle Optium H meter only)</p> <p>Freestyle Optium Neo H (for use with the freestyle optium Neo H only)</p> <p><u>NB Blue Foil Packaging</u></p>	<p>Abbott Diabetes Care RDC</p> <p>Diabetes Specialist Nurse Team</p> <p>Pharmacy in Community Hospitals</p>
<p>N. B It is essential that blood ketone strips are not mistaken for blood glucose strips. Serious errors in treatment decisions could occur.</p>		
Ketone Testing Strips	<p>Freestyle Optium Beta ketone</p> <p>(compatible with either freestyle optium H or freestyle optium Neo H)</p> <p><u>NB. Purple Foil packaging</u></p> <p>In Hospital areas these must be kept in a clearly labelled workstation that is separate to that of the blood glucose testing equipment.</p>	<p>In hospital - supplies via pharmacy.</p> <p>Community Patients e.g. unstable Type 1 diabetes, obtain on prescription.</p>
Batteries		RDC
Lancet Device	Single Use Lancet e.g Unistik 3	RDC

Quality Control Solution Internal	Supplied by Abbot Diabetes Care	Abbott Diabetes Care representative Abbott diabetes care website Some supplies kept locally eg Louth Hospital Urgent Care
Quality Control Solution External	Circulated monthly by PathLinks at Scunthorpe	PathLinks Scunthorpe
Blood Glucose Meter Patient Use – Refer to local formulary	Freestyle Neo – LCHS recommended GP Practice preferred meter	Community Diabetes Team Abbott diabetes care website Abbott diabetes care representative GP Practice
Blood Glucose Test Strips Patient Use	Freestyle Optium GP Preferred meter strips	On prescription
<p>NB: Be aware of contra-indications with some strips and meters if not using LCHS recommended meter and strips. Some systems are not suitable in renal failure, obesity etc. –refer to manual.</p>		

Cleaning Instructions for Blood Glucose Meter and Workstation

Tuffi 5 Wipes should be used for cleaning
Workstation outside – clean after every use
Workstation inside- clean weekly
If blood is spilt in the inside of the station or it is contaminated in any way clean immediately
Blood glucose meter – clean each time used

As the weekly cleaning programme is completed the details must be documented in the meter's log book to demonstrate an audit trail

Audit

Diabetes Resource files to be maintained by Link nurse to include records of training and QC exercises and weekly cleaning.
Annual audits will be undertaken by the Community Diabetes Teams to monitor meter usage and QC records.

FURTHER INFORMATION AVAILABLE FROM THE MANUFACTURER'S OPERATORS GUIDE,
AVAILABLE IN EACH WARD / DEPT / COMMUNITY TEAM.

Blood Glucose and Ketone Testing Training Requirements

The initial training programme was co-ordinated by the Community Diabetes Service and Abbott

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Diabetes Care throughout the county and is now delivered by Community Diabetes Service and Diabetes Link Nurses who have received additional training.

Only healthcare professionals / care workers who have undertaken LCHS recognised training programme and achieved criteria of competence may undertake blood glucose monitoring and blood ketone testing, and demonstration of competence should be updated annually.

Role	Education	Competency Assessment	Update
Registered Nurse	Basic Diabetes Awareness* Blood Glucose Testing and Monitoring Blood Ketone Testing, Interpretation of Results and Mangement Options in relevant areas of practice	Appendix 2 J:\2017-2018\LCHS\2017 Diabetes Guideline Development\Diabetes Guidelines for 2017\Appendix 2 - Summative Assessment for Blood Glucose Monitoring.docx	Annual
Care Workers if appropriate to area of practice	Basic Diabetes Awareness* Blood Glucose Testing and Monitoring	As above with minimum of 5 observed blood glucose tests	Annual
Student Nurses	Basic Diabetes Awareness* Blood Glucose Testing and Monitoring	As above but all episodes of blood glucose monitoring must be supervised by competent Registered Nurse	
Patient / Relative	Individualised education and observation of competency		
*LCHS Staff will access this via ESR			

The update programme will either be delivered by the Community Diabetes Team or delegated to the Diabetes Link Nurse for that work area/ team. Lincolnshire Community Health Services will nominate a Link Nurse for each team, who will have protected time in which to attend Diabetes Update sessions and to update training for their own Community Teams.

To ensure compliance with medical device policy, records of the following information must be maintained:

- names of staff who have attended the training (Electronic Staff Record)
- Serial Numbers of meters issued; so that evidence can be provided regarding the management of medical devices (LCHS Asset Register and Scunthorpe Pathlinks).

NB. TRAINING FOR BLOOD KETONE TESTING (Registered Nurses Only) Initial training provided via DSN Team and Abbot Diabetes Care. Although not carrying out ketone testing, unregistered staff need be able to distinguish between glucose and ketone strips.

PROCEDURE FOR BLOOD GLUCOSE AND KETONE TESTING

All users of extra-laboratory blood glucose meters must be aware of:-

- Manufacturer's instruction manuals are provided with each meter. All nurses / care workers undertaking blood glucose monitoring must familiarise themselves with its contents and follow the instructions for use and testing at all times.
- Quality Control, Cleaning and Audit Procedures must be adhered to, including when using patient's own meter.
Patients and carers should be encouraged to carry this testing out themselves if possible.
- Cautions and Contra-indications must be considered and documented.

LABORATORY ANALYSIS OF VENOUS BLOOD SAMPLE SHOULD BE CARRIED OUT IN THE FOLLOWING CIRCUMSTANCES OR IF THERE IS ANY SUSPICION OF CONTRA-INDICATION:

- Extremes of Haematocrit including COPD, Anaemias, Leukaemias, Polycythaemia, Severe Gastro-Intestinal or post-operative bleeds
 - High Bilirubin Values
 - Peripheral Circulatory Failure
 - Severe Dehydration
 - Diabetic Ketoacidosis
 - Hyperglycaemic hyperosmolar non-ketotic state.
 - Sustained uncontrolled diabetes
 - Hypotension
 - Shock
- 

Consideration as to whether to use capillary or venous blood testing is advised in the following circumstances:

- Diarrhoea and vomiting
 - Inability to respond to or lacking thirst sensations
 - Peripheral vascular disease
 - On prescribed treatment such as diuretics
 - Severe persistent Vasospasm of the fingers (Raynaud's phenomenon) - In these cases, capillary blood glucose can be obtained from alternate sites, such as earlobes (refer to Freestyle Optium Neo H meter manual).
- 

Equipment must be maintained in good condition and kept in workstations containing:

- Strip insert and calibration bar
- Internal QC Solutions
- Internal QC Record Book
- Blood Testing Lancets
- Cotton wool
- Non-sterile gloves
- Sharps disposal container
- Urinalysis strips (Community Teams should carry out urinalysis ketone testing)

The objective is to perform the minimum of tests to obtain the maximum information by careful timing with respect to the patient's care. (See recommendations for 'blood glucose monitoring and frequency' section).

Single use lancet device e.g. Unistik 3 lancet device should be used for obtaining blood sample.

The site of puncture should be cleaned with warm soapy water rinsing well and dried well. The site chosen should cause minimum discomfort and skin damage.

Alcohol gel, hand rubs and hand wipes/baby wipes should not be used by patients or staff undertaking blood/ ketone testing.

SAFETY

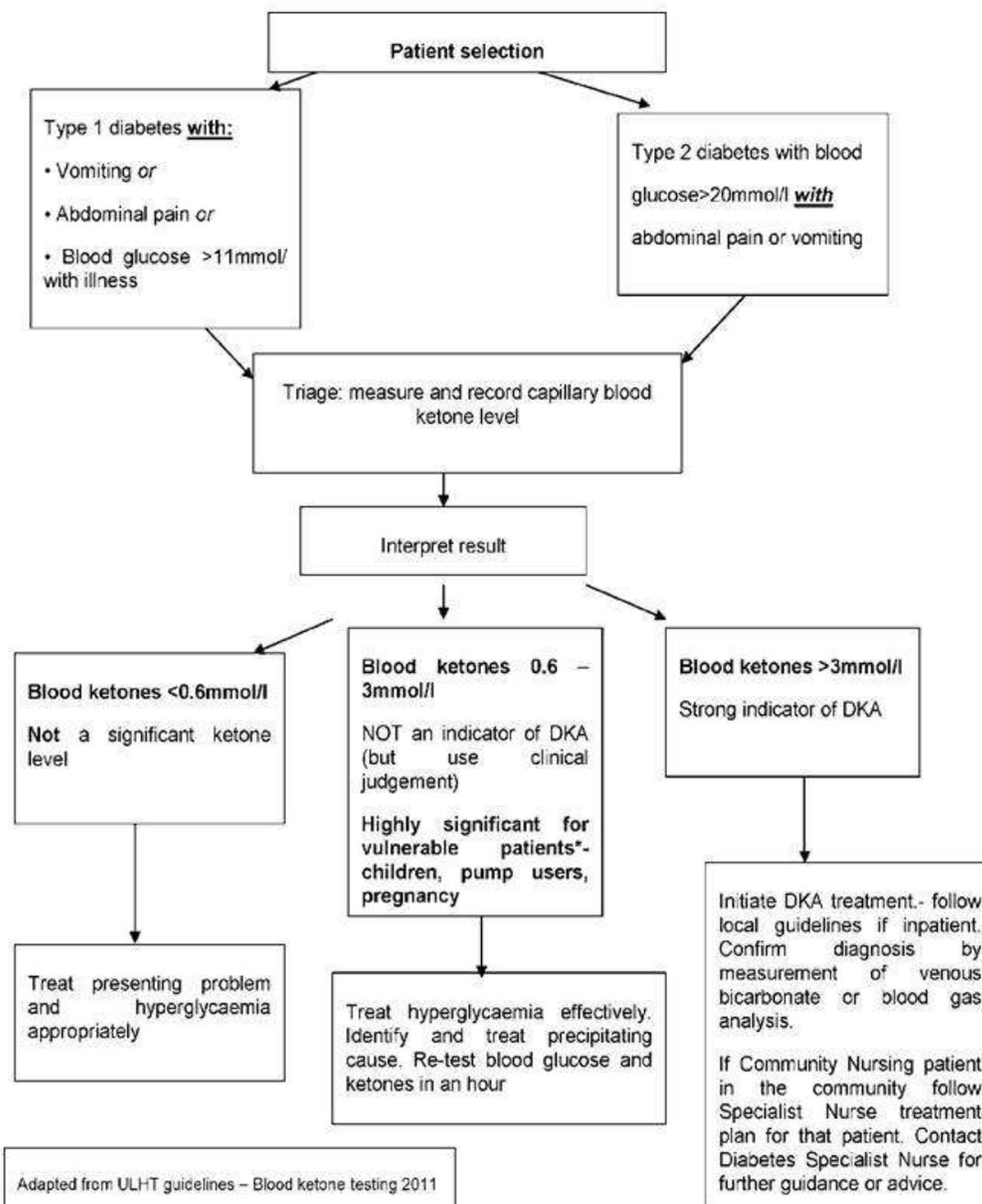
- Test strips, meters and QC materials do not present a significant risk to operator or patient, provided they are used in accordance with manufacturer's quality assurance guidelines and Trust policy.
- LCHS policy on safe handling and disposal of sharps and management of sharp injuries and exposure to body fluids must be followed at all times.
- Patients who bring their own meters into community hospitals should be advised to use Unistik 3 lancet device to obtain blood samples. It is also recommended that the meter is quality controlled by a competent Registered Nurse before meter can be used. For further guidance please refer to Lincolnshire Community Health Services Infection Prevention and Control Guidelines and Policies at: <http://www.lincolnshirecommunityhealthservices.nhs.uk/Policies-and-Guidelines>

Patients who may require blood ketone testing:

- Known to have diabetes and identified as at clinical risk of ketoacidosis - These will primarily be patients who are unwell and have attended the Urgent Care Centre, Out of Hours service or have been admitted to the community hospitals.
- There may be some patients under the care of community nursing teams who may need to have provision for blood ketone testing as advised by the Clinical Nurse Specialists Diabetes e.g. unstable Type 1 Diabetes. An individual management plan will be provided by the CNS Diabetes for those patients. Ketone test strips should be obtained on prescription for these patients.
- Ketone test strips are comparatively expensive so staff should follow individual management plans on when ketone testing is appropriate for those patients.
- Ketone testing will help rapidly and accurately identify patients with diabetes who require immediate assessment and treatment for suspected Diabetic Ketoacidosis.

See below for algorithm re patient selection for ketone testing /interpretation of results.

ALGORITHM FOR BLOOD KETONE TESTING



GLP-1 Treatment Pathway

Independent Nurse Prescriber

- Following assessment Diabetes Specialist Nurse to write prescription and inform GP of changes to therapy made.
- Check that U+E's, LFT's and HbA1C have been taken within the last 3 months and recorded
- Record baseline observations of weight, height, BMI and blood pressure
- Make an appointment for the patient to start treatment if required (NB. some patients may be able to undertake this independently).
- Advise the patient of any medication changes prior to commencement of treatment e.g. reducing sulphonylureas

First Appointment

- Educate the patient regarding his treatment as per systm1 template
- Supervise the administration of the first injection
- Make an appointment for review as clinically indicated depending on drug choice,
- Ensure patient is aware to telephone for advice if necessary and give contact numbers

Review Appointment – 1 month (could be telephone review if clinically appropriate)

- Assessment of weight, BMI and blood pressure
- Assessment of any problems with injections, sites or side effects
- Make an appointment to review as clinically indicated – this may be a telephone review.
- Consider repeat U/E's if clinically appropriate (ie. low eGFR at starting) then 3-6monthly if effective

Review Appointments 3-6 months

- Assessment of weight, BMI and blood pressure
- Assessment of blood glucose levels
- Review repeat U+E's, LFT's and HbA1C taken before the appointment
- Assessment of any other problems such as side effects, injections and sites
- If no improvement in control review treatment plan with the patient. Consider discontinuation if no overall improvement with control and weight loss at 6 months.
- Arrange a review appointment as clinically indicated
- Discharge back to the care of GP if targets have been met, 3% weight reduction and 11mmols/mol drop in HbA1C

References specific to GLP-1 therapy initiation

LCHS Policy for safe and secure handling of medicines
NICE(2008) Clinical Guideline 87. Type 2 Diabetes – The Management of type 2 diabetes. NICE London
NMC(2008) Standards for medicines management. NMC London
NMC(2008) The Code – Standards of conduct, performance and ethics for nurses and midwives. NMC London
NMC(2009) Standards of Record Keeping Guidance for Nurses and Midwives
BNF 66 (September 2013-2014) The British National Formulary

Procedures for the Safe Administration of Insulin by Registered and Non-Registered Practitioners

Training and Competency Assessment

All Practitioners undertaking insulin administration must have attended the Diabetes Training as defined by LCHS. Training will include the following:

- Diabetes Awareness
- Blood Glucose Monitoring
- Administration of Insulin

Annual update and review of Competence is mandatory for all practitioners undertaking this role

Training will be delivered by Diabetes Specialist Nurses / Diabetes Link Champions
Assessment of Competence carried out by appropriately trained Registered Nurses / Diabetes Link Champions/ Diabetes Mentor (Appendix 1-4)

Outside of the annual update training for blood glucose monitoring can be accessed via Abbot Diabetes Care or Diabetes Link Champions.

Registered Nurses acting as diabetes mentors to non-registered staff must ensure that have up to date knowledge and skills relating to blood glucose monitoring and insulin administration (NMC 2008), before carrying out assessment for delegation of insulin to another practitioner, whether registered or unregistered.

Practitioners must be trained to administer insulin following standard procedures (Appendix 5)

All practitioners will receive support and supervision in their work place until both they and the registered nurse are satisfied that they have the necessary training, confidence and skills to undertake the procedure unsupervised (Appendix 2-4).

Policy and Procedure for the Delegation of Administration of Insulin to Non-Registered Practitioner

Non-Registered Practitioners will require additional evidence and consents to be in place before administering subcutaneous insulin delegated by a Registered Practitioner. The process for this is defined below and a quick guide is available in Appendix 6.

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Requirements to be fulfilled by Non-Registered Practitioner

- The non-registered practitioner must meet the initial educational requirements and must be willing to undertake the training and undertake the assessments pertaining to procedure.
- The NRP recognises that the training programme will focus on insulin administration using an insulin pen with EU directive 2010/32 compliant safety insulin pen needles or with U100 insulin syringes and insulin vials
- The NRP recognises that whilst the Registered Nurse remains accountable for the delegation of care (NMC 2010), the NRP is responsible for their own actions.
- The NRP will require the support of a Registered Practitioner, this relationship is formalised using a mentor consent form (Appendix 8).
- The NRP is also required to complete a declaration of consent (adherence to policies including management of sharps) and a registration form (Appendix 10 & 12).
- An Employers Accountability Form is also required (Appendix 11).
- The completed forms will be processed by Integrated Community Team Administrator who will file on j drive and log details of NRP and reassessment dates.
- Once the appropriate risk assessments have been undertaken by the registered practitioner, the responsibility of blood glucose monitoring and insulin administration can then be delegated to the NRP in line with the agreed care plan. The care plan should include specific blood glucose parameters and escalation actions.
- The non-registered practitioner will contact the registered nurse when there are any deviations from the patients individualised care plan or in the event of a drug error.

Responsibility and Process for Delegating Administration of Insulin to a NRP

- The registered nurse is accountable for the delegation of any aspects of the administration of insulin and must ensure the non-registered practitioner is competent to carry out the task using the competency assessments (NMC 2010). This includes an on-going assessment and supervision of practice with annual reassessment.
- The Registered Nurse will review her/his own competence (Appendix 7) before considering delegating administration of insulin to a non-registered practitioner
- The registered nurse will identify non-registered practitioner who have successfully completed and passed the diabetes awareness, blood glucose monitoring and insulin administration training programme and has registered via the ICT Administrator process (Appendix 6,12)
- Alternatively the Registered Nurse may identify a NRP that wishes to undertake training and arrange for training and mentorship to be provided in order to be able to support the identified patient in the longer term (Appendix 1-4, 8, 10,11, 12)
- Subcutaneous insulin administration will be on a named patient basis only.
- The registered nurse must have ensured that all steps have been taken to maximise and support the patient's independence including the involvement of the family or informal carers in the administration of insulin.
- A risk assessment must be undertaken by the registered nurse for each individual patient and for each NRP who will be taking responsibility for the delegation of the task before a decision is made to allow the administration of insulin by a non-registered practitioner (Appendix 9).

- The registered nurse must complete a comprehensive nursing assessment and detailed care plan and the patient's condition is identified as being stable/medically predictable and client consent obtained (Appendix 14).
- The non-registered practitioner will contact the registered nurse when there any deviations from the patients individualised care plan or in the event of a drug error.
- A registered nurse will visit the patient once weekly and review the patients care plan monthly.

Exclusions

- Patient consent declined
- Client assessed as not suitable for capillary blood glucose monitoring by community nurse as per current LCHS capillary blood glucose monitoring guidance and procedures.
- Registered or non-registered practitioner has not completed the designated Training programme that includes diabetes awareness, blood glucose monitoring and insulin administration training programme modules
- If the patient's condition deteriorates the suitability for the delegation of insulin administration must be reassessed by the registered nurse

Consent

- The registered nurse must obtain consent from the patient for the delegation of insulin administration by non-registered practitioners as per Lincolnshire Community Health Services consent policy and in accordance with the mental capacity act (2005) and mental capacity act guidance (2007). This consent must be documented and scanned onto the patient's notes (appendix 14).
- The registered nurse must ask the non-registered practitioner for confirmation that they are willing to perform the task on a NAMED PATIENT ONLY following successful completion of the approved training programme (appendix 1) and receive on-going assessment and supervision in order to complete the competency frameworks supporting this programme (appendices 2-4)
- The duty to obtain on-going consent for insulin administration is the responsibility of the non-registered practitioner every time insulin is to be administered and this should be documented in the patient's records. Failure to do so could amount to assault
<http://www.lincolnshirecommunityhealthservices.nhs.uk/content/pcig05-consent-examination-or-treatment>

Equipment

The registered nurse must ensure that the patient has their own insulin, either insulin pen device and automatic re-sheathable needles OR U100 insulin syringes and the insulin contained in a vial, blood glucose meter and test strips and that arrangements are in place for the resupply of this equipment and medication.

Suitable storage facilities for the insulin must also have been assessed

Documentation

Patients must have an individualised diabetes care plan which states blood glucose parameters and who to contact when levels are outside of these parameters (appendix 13)

The Diabetes care plan must be reviewed monthly by the delegating registered nurse

Blood glucose monitoring and insulin administration records must be completed by the non-registered practitioner and kept in the patient notes as per LCHS Medicines Management Policy

Patient notes should be completed following the LCHS standards for record keeping and the NMC record keeping guidance

<http://www.lincolnshirecommunityhealthservices.nhs.uk/content/pcig20-safe-and-secure-handling-medicines>

http://www.lincolnshirecommunityhealthservices.nhs.uk/sites/default/files/documents/policies_guidance/P_IG_04%20Clinical%20Records%20Management_0.pdf

<https://www.nmc.org.uk/standards/code/record-keeping/>

Monitoring Compliance

Compliance of this Guideline will be carried out by:

- Monitoring of related Datix incident reports carried out by service managers
- Following incident reporting follow up actions will be coordinated by service managers and the Community Trust Safety Manager.
- Mentor Register and non-registered practitioner training records/databases

Appendices: Documents Supporting Guidelines and Policy

[\\Fsnl2\lchs\2017-2018\LCHS\2017 Diabetes Management Guidelines and Policy](#)

Appendix 1 - Learning Outcomes and Competency Assessment for Administration of Insulin by Registered and Non-registered practitioners

Appendix 2 -Competency Assessment for Blood Glucose Monitoring

Appendix 3 -Competency Assessment of Registered Nurses for the administration of Subcutaneous Insulin and GLP-1 Receptor Antagonist Therapy

Appendix 4 –SHCSW Competency Insulin Administration Competency Standards and Assessment

Appendix 5 -Procedure for the Administration of Insulin

Appendix 6 -Non-Registered Practitioners Administration of Insulin Process 2017

Appendix 7 – RN Self-Assessment of Diabetes Competency
Appendix 8 – Insulin Administration Mentor Delegation Form
Appendix 9 - Risk assessment for administration of insulin by a non-registered practitioner
Appendix 10 – Non-Registered Practitioner Declaration of Consent
Appendix 11 – Declaration of Accountability of Employing Manager
Appendix 12- Integrated Clinical Team Registration Form
Appendix 13- Example Care Plan
Appendix 14 – Client Consent
Appendix 15 – Diabetes Pathway Overarching
Appendix 16 – Authority to Administer Insulin 2017
Appendix 17 - Diabetes Specialist Nurse Referral Form

References

- Becton Dickinson & Company (2012) BD Autosheild Safety Pen Needle- Clinicians [Online] Available at <http://www.bd.com/uk/diabetes> (Accessed 12.4.2012)
- Shropshire Community Health NHS Trust (2015) Administration of Insulin by non-registered practitioners policy
- NMC (2015) The Code: Professional Standards of practice and behavior for Nurses & Midwives. NMC: London
- NMC (2010) Standards for Medicines Management NMC: London
- NMC (2009) Record Keeping: Standards for Nurses and Midwives. NMC: London
- NMC Regulation in Practice Topics: Delegation (2012) Available from <http://www.nmc-uk.org/Nurses-and-midwives/Regulation-in-practice/Regulation-in-Practice-Topics/Delegation> (Accessed 25th March 2013)
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RCN (2011) The principles of accountability & delegation for nurses, students, health care assistants and assistant practitioners. RCN: London Available from [http:// http://www.rcn.org.uk](http://http://www.rcn.org.uk) (accessed 25th March 2013)

RCN (2011) Accountability & Delegation Checklist Available from http://www.rcn.org.uk/support/rcn_direct_online_advice/a-z2/health_care_assistants_hcas_and_assistant_practitioners_aps/accountability_and_delegation (accessed 25th March 2013)

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Skills for Health (2012) Diabetes National Workforce Competence Framework Guide [online] Available from [http:// www.skillsfor health.org.uk](http://www.skillsforhealth.org.uk) (accessed 30th July 2013)

Associated Documents

This Policy and Guidelines should be used in conjunction with the following Documents:

<http://www.lincolnshirecommunityhealthservices.nhs.uk/content/pcig20-safe-and-secure-handling-medicines>

<http://www.lincolnshirecommunityhealthservices.nhs.uk/content/pcig15-policy-management-medication-errors>

<http://www.lincolnshirecommunityhealthservices.nhs.uk/content/prm01-incident-reporting>

http://www.lincolnshirecommunityhealthservices.nhs.uk/sites/default/files/documents/policies_guidance/P_IG_04%20Clinical%20Records%20Management_0.pdf

<http://www.lincolnshirecommunityhealthservices.nhs.uk/content/pcig05-consent-examination-or-treatment>

<http://www.lincolnshirecommunityhealthservices.nhs.uk/content/gipc26-standards-infection-prevention-and-control-precautions>

<http://www.lincolnshirecommunityhealthservices.nhs.uk/content/pipc01-infection-prevention-policy>

<http://www.lincolnshirecommunityhealthservices.nhs.uk/content/pcig17-clinical-audit-policy-and-procedures-2016-2019>

<http://www.lincolnshirejointformulary.nhs.uk/>

BD Autosheild Duo Safety Pen Needle Clinicians Downloads Available online from Becton Dickinson & Company at: <http://www.bd.com/us/diabetes/hcp/main>

<http://www.trend-uk.org/>

www.leicesterdiabetes.org.uk

www.fit4diabetes.com

www.diabetes.co.uk

www.diabetes.org.uk

Useful Leaflets and Websites for Patients



Ramadan info
booklet 082012v3.pdf

<http://trend-uk.org/wp-content/uploads/2017/02/Hypo-leaflet-V4.pdf>

http://trend-uk.org/wp-content/uploads/2017/02/Diabetes_and_steroid_leaflet_02-16.pdf

http://trend-uk.org/wp-content/uploads/2017/03/170214-TREND-Sick-day-rules-leaflet_AZ.pdf

<http://trend-uk.org/wp-content/uploads/2017/02/08.06.16-Driving-leaflet-1.pdf>

<http://www.trend-uk.org/>

www.leicesterdiabetes.org.uk

www.fit4diabetes.com

www.diabetes.co.uk

www.diabetes.org.uk

Monitoring Template

This template should be used to demonstrate compliance with NHSLA requirements for the procedural document where applicable and/or how compliance with the document will be monitored.

Minimum requirement to be monitored	Process for monitoring e.g. audit	Responsible individuals/group /committee	Frequency of monitoring /audit	Responsible individuals / group / committee (multidisciplinary) for review of results	Responsible individuals / group / committee for development of action plan	Responsible individuals / group / committee for monitoring of action plan
Bi-annual Review	Audit	Clinical Audit Group	Bi-annual	EPAG	CAG	EPAG
Incident Investigation	Datix Review	Adult Clinical Governance	Ongoing	Quality and Risk	Adult Clinical Governance	Quality and Risk
Training recorded ESR	ESR Audit	Clinical Audit Group	Annual	EPAG	Clinical Audit Group	EPAG

Equality Analysis

Introduction

The general equality duty that is set out in the Equality Act 2010 requires public authorities, in the exercise of their functions, to have due regard to the need to:

- Eliminate unlawful discrimination, harassment and victimisation and other conduct prohibited by the Act.
- Advance equality of opportunity between people who share a protected characteristic and those who do not.
- Foster good relations between people who share a protected characteristic and those who do not.

The general equality duty does not specify how public authorities should analyse the effect of their existing and new policies and practices on equality, but doing so is an important part of complying with the general equality duty. It is up to each

organisation to choose the most effective approach for them. This standard template is designed to help LCHS staff members to comply with the general duty.

Please complete the template by following the instructions in each box. Should you have any queries or suggestions on this template, please contact Equality and Human Rights Lead.

Name of Policy/Procedure/Function*

Diabetes Management Guidelines, Policy and Procedural Document 2017

Equality Analysis Carried out by: Jane Scrafton

Date: 19/07/2017

Equality & Human rights Lead: Rachel Higgins

Date: 13/102017

Director\General Manager: Lisa Stalley Green

***In this template the term policy\service is used as shorthand for what needs to be analysed. Policy\Service needs to be understood broadly to embrace the full range of policies, practices, activities and decisions: essentially everything we do, whether it is formally written down or whether it is informal custom and practice. This includes existing policies and any new policies under development.**

Section 1 – to be completed for all policies

A.	Briefly give an outline of the key objectives of the policy; what it's intended outcome is and who the intended beneficiaries are expected to be	The purpose of this guidance is to implement a co-ordinated and uniform approach to the clinical management of Diabetes. This provides a clear expectations for staff and aims to ensure patient safety by providing best practice guidance.		
B.	Does the policy have an impact on patients, carers or staff, or the wider community that we have links with? Please give details	Sets standards and provides guidance to support high quality patient / carer interaction, information and care		
C.	Is there is any evidence that the policy\service relates to an area with known inequalities? Please give details	Diabetic population often include vulnerable people with multiple co-morbidities, functional and social difficulties. This policy is inclusive of all groups		
D.	Will/Does the implementation of the policy\service result in different impacts for protected?	This policy aims to ensure that no person receives less favourable treatment on the grounds of gender, sexual orientation, civil partnership/marital status, colour, race, nationality, ethnic or national origins, religion/belief, disability, age or caring responsibility.		
		Yes	No	
	Disability		X	
	Sexual Orientation		X	
	Sex		X	
	Gender Reassignment		X	
	Race		X	
	Marriage/Civil Partnership		X	
	Maternity/Pregnancy		X	
	Age		X	
	Religion or Belief		X	
	Carers		X	
If you have answered 'Yes' to any of the questions then you are required to carry out a full Equality Analysis which should be approved by the Equality and Human Rights Lead – please go to section 2				
The above named policy has been considered and does not require a full equality analysis				
Equality Analysis Carried out by:		Jane Scrafton		
Date:		19/07/2017		

Section 2

Equality analysis

Title:
Relevant line in:

What are the intended outcomes of this work? <i>Include outline of objectives and function aims</i>
Who will be affected? <i>e.g. staff, patients, service users etc</i>

Evidence <i>The Government's commitment to transparency requires public bodies to be open about the information on which they base their decisions and the results. You must understand your responsibilities under the transparency agenda before completing this section of the assessment.</i>
What evidence have you considered? <i>List the main sources of data, research and other sources of evidence (including full references) reviewed to determine impact on each equality group (protected characteristic). This can include national research, surveys, reports, research interviews, focus groups, pilot activity evaluations etc. If there are gaps in evidence, state what you will do to close them in the Action Plan on the last page of this template.</i>
Disability <i>Consider and detail (including the source of any evidence) on attitudinal, physical and social barriers.</i>
Sex <i>Consider and detail (including the source of any evidence) on men and women (potential to link to carers below).</i>
Race <i>Consider and detail (including the source of any evidence) on difference ethnic groups, nationalities, Roma gypsies, Irish travellers, language barriers.</i>
Age <i>Consider and detail (including the source of any evidence) across age ranges on old and younger people. This can include safeguarding, consent and child welfare.</i>
Gender reassignment (including transgender) <i>Consider and detail (including the source of any evidence) on transgender and transsexual people. This can include issues such as privacy of data and harassment.</i>
Sexual orientation <i>Consider and detail (including the source of any evidence) on heterosexual people as well as lesbian, gay and bi-sexual people.</i>
Religion or belief <i>Consider and detail (including the source of any evidence) on people with different religions, beliefs or no belief.</i>

Pregnancy and maternity Consider and detail (including the source of any evidence) on working arrangements, part-time working, infant caring responsibilities.

Carers Consider and detail (including the source of any evidence) on part-time working, shift-patterns, general caring responsibilities.

Other identified groups Consider and detail and include the source of any evidence on different socio-economic groups, area inequality, income, resident status (migrants) and other groups experiencing disadvantage and barriers to access.

• Engagement and involvement

Was this work subject to the requirements of the Equality Act and the NHS Act 2006 (Duty to involve) ? (Y/N)

How have you engaged stakeholders in gathering evidence or testing the evidence available?

How have you engaged stakeholders in testing the policy or programme proposals?

For each engagement activity, please state who was involved, how and when they were engaged, and the key outputs:

Summary of Analysis Considering the evidence and engagement activity you listed above, please summarise the impact of your work. Consider whether the evidence shows potential for differential impact, if so state whether adverse or positive and for which groups. How you will mitigate any negative impacts. How you will include certain protected groups in services or expand their participation in public life.

Now consider and detail below how the proposals impact on elimination of discrimination, harassment and victimisation, advance the equality of opportunity and promote good relations between groups.

Eliminate discrimination, harassment and victimisation Where there is evidence, address each protected characteristic (age, disability, gender, gender reassignment, pregnancy and maternity, race, religion or belief, sexual orientation).

Advance equality of opportunity Where there is evidence, address each protected characteristic (age, disability, gender, gender reassignment, pregnancy and maternity, race, religion or belief, sexual orientation).

Promote good relations between groups Where there is evidence, address each protected characteristic (age, disability, gender, gender reassignment, pregnancy and maternity, race, religion or belief, sexual orientation).

What is the overall impact? Consider whether there are different levels of access experienced, needs or experiences, whether there are barriers to engagement, are there regional variations and what is the combined impact?

Addressing the impact on equalities Please give an outline of what broad action you or any other bodies are taking to address any inequalities identified through the evidence.

Action planning for improvement Please give an outline of the key actions based on any gaps, challenges and opportunities you have identified. Actions to improve the policy/programmes need to be summarised (An action plan template is appended for specific action planning). Include here any general action to address specific equality issues and data gaps that need to be addressed through consultation or further research.

Please give an outline of your next steps based on the challenges and opportunities you have identified. Include here any or all of the following, based on your assessment

● **For the record**

Name of person who carried out this assessment:

Date assessment completed:

Name of responsible Director/ General Manager:

Date assessment was signed: