Lensfield Medical Practice Diabetes SOP/Management Guidelines for Adults with Type 2 Diabetes

Adaptation from the National Institute for Health and Care Excellence

Diabetes UK
Cambridgeshire & Peterborough Integrated Care System

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1. Diabetes/impaired glucose regulation diagnostic criteria

Who to screen?

Symptomatic: Polydipsia, polyuria, nocturia, urinary incontinence, lethargy, frequent infections, sepsis, blurred vision, unexplained weight loss, recurrent infection, and tiredness. Note that this may be mild or absent. A skin condition causing dark pigmentation of the skin folds, typically the axillae, groin, and neck which suggests insulin resistance. If acutely unwell, check random (capillary) glucose and ketones for suspected type 1 diabetes.

Risk factors: Overweight/obese, large waist, black/south Asian ethnicity, aged over 40, existing vascular condition (or at high risk of CVD) hypertension, family history of diabetes, previous gestational diabetes, steroid use, PCOS.

Diagnosis: Refer to NICE Guidelines (Last reversed January 2023)

https://cks.nice.org.uk/topics/diabetes-type-2/diagnosis/diagnosis-in-adults/

Persistent hyperglycaemia is defined as:

- HbA1c of 48 mmol/mol (6.5%)/more.
- Fasting plasma glucose level of 7.0 mmol/L or more.
- Random plasma glucose of 11.1 mmol/L or more in the presence of symptoms or signs of diabetes.
- If the person is symptomatic, a single abnormal Hba1c or fasting plasma glucose level can be used, although repeat testing is sensible to confirm the diagnosis.
- If the person is asymptomatic, do not diagnose diabetes on the basis of a single abnormal HbA1c or plasma glucose result: ***N.B. The same test must be used for both 1st and 2nd tests, i.e. BOTH diagnosis tests should EITHER be fasting glucose OR HbA1c.***
- If the repeat test result is normal, arrange to monitor the person for the development of diabetes, the frequency depending on clinical judgment**.**

N.B be aware that severe hyperglycaemia in people with acute infection, trauma, circulatory or other stress may be transitory and is not diagnostic of diabetes

Confirming result:

- No additional features of type 1 (such as rapid onset, often in childhood, insulin dependence, or ketoacidosis)
- See NICE CKS for diagnosis of type 1 diabetes https://cks.nice.org.uk/topics/diabetes-type-1/diagnosis/diagnosis-adults/

- No clinical features of other types of diabetes such as monogenic diabetes or diabetes secondary to another condition or disease ***(Refer to other types of diabetes below)*** ***https://cks.nice.org.uk/topics/diabetes-type-2/diagnosis/diagnosis-in-adults/#interpreting-hba1c-results***

1. Pre-diabetes (Non-Diabetic Hyperglycaemia),

- Hba1c 42-47mmol/mol
- 20 minutes appointment with RA/AI
- Offer individual-level interventions to prevent type 2 diabetes
- Offer NHS Diabetes Prevention Programme (NDPP)
- Exercise referral
- Reassess weight & BMI, set recall for Hba1c at least once a year
- Repeat Hba1c annually or sooner if symptomatic

(Refer to guidance below)

https://www.nice.org.uk/guidance/ph38/chapter/glossary#glycated-haemoglobin-hba1c

Difficult to interpret HbA1cresults:

Refer to NICE CKS when to suspect type 2 diabetes in adult, children, hyperglycaemic emergencies DKA (Diabetic Ketoacidosis), HHS (Hyperosmolar hyperglycaemic State) (Reversed 2023)

- Seek advice from the specialist team/clinical biochemistry (CUH)
- Abnormal haemoglobin, such as haemoglobinopathy
- Severe anaemia, B12 and folate deficiency
- Altered red cell lifespan (e.g. post-splenectomy)
- A recent blood transfusion

2. Gestational Diabetes (Refer to NICE.org.uk NG3)

- Diabetes in pregnancy: management from preconception to the postnatal period ***Refer to guidance below*****: https://www.nice.org.uk/guidance/ng3**

3. Management of Type 2 Diabetes with Blood Glucose Lowering Agents

Refer to guidance below:

https://www.nice.org.uk/guidance/ng28/resources/visual-summary-full-version-choosing-medicines-for-firstline-and-further-treatment-pdf-10956472093

Newly Diagnosed Type 2 Diabetes (HbA1c 48mmol/mol/above)

- 20 minutes appointment with RA/AI to provide individualised care that meets the needs of the patient and a recall dependent of the Hba1c. ***For more details refer to:*** https://www.nice.org.uk/guidance/ng28/chapter/Recommendations#individualised-care
- Patient education and lifestyle advice (DESMOND)
- Offer smoking cessation if known smoker
- Ensure Mental Health is stable if not refer to GP/self-referral
- Discuss diabetic retinopathy screening referral: ***for more details refer to section 11***
- Follow NICE Pathway on Hypertension if above 130/80
  N.B Encourage HBPM (this will be included to invite message)
  N.B Measuring BP at the surgery should be not less than 3 times then, choose the lowest reading
  RA/AI: Refer to practice resources guidance for managing hypertension in diabetes protocol or
  https://www.nice.org.uk/guidance/ng28/chapter/recommendations#diagnosing-and-managing-hypertension
- Managing Lipids & Cardiovascular Risk: ***refer to NICE guidelines on CVD: risk assessment and reduction, including lipid modification:*** https://www.nice.org.uk/guidance/cg181/chapter/Recommendations
- If pregnant or planning to become pregnant refer to diabetes in pregnancy guidelines ***Refer to diabetes in pregnancy guidelines*** https://www.nice.org.uk/guidance/ng3
- Agreed target level to aim for Hba1c of 48mmol/mol (6.5%) or for adults on drugs associated with hypoglycaemia support to aim for 53mmol/mol (7.0%)
- 20 minutes telephone/face-to-face follow-up fourth night/dependent on individualised patient's need.

HbA1c Measurements/Follow-up/Annual Reviews

- Offer rescue therapy at any stage of treatment if symptomatically hyperglycaemic, consider insulin or sulfonylurea, and review treatment when blood glucose control has been achieved.
  https://www.nice.org.uk/guidance/ng28/chapter/Recommendations#blood-glucose-management
- Repeat HbA1c in 6-10 weeks if above 75mmol/mol, otherwise 3-6-monthly intervals (tailored to individual needs), until the HbA1c is stable on unchanging therapy
- 6-monthly intervals once the HbA1c level and blood glucose lowering therapy are stable
- Annual reviews invites to patients as required rather than historic birthdate month

- HbA1c measurements/annual reviews should be arranged with AH/TS
- TS/AH to then, arrange a follow-up appointment (telephone/face-to-face dependent on patient's needs) with RA/AI to review blood results.
- AI to review medication change with RA if in any doubts

4. Insulin Initiation/Regimens/Titration

- RA to refer to CPFT DSN team if Dr Griffin is not around

5. Blood Glucose Monitoring Guidelines

Do not routinely offer self-monitoring of blood glucose levels for adults with type 2 diabetes unless:

- The person is on insulin
- There is evidence of hypoglycaemia episodes
- The person is on oral medication that may increase their risk of hypoglycaemia while driving or operating machinery
- In pregnancy or if planning to become pregnant in which case refer to NICE www.nice..org.uk/guidance/ng3
- Suspected hypoglycaemia or starting treatment with oral/intravenous corticosteroids. In which case carry a structured assessment at least annually to ascertain self-monitoring skills
- Refer to formulary recommendation: Cambridgeshire & Peterborough Integrated Care System | CPICS Website for Phase 3 (still to be assessed under specialist):
- Individuals with Type 2 Diabetes: Freestyle Libre 2 and Dexcom One have been reclassified as **GREEN** on the formulary for Type 2 diabetes patients who are on multiple daily insulin injections with any of the following:
- Severe hypoglycaemia or impaired hypoglycaemic awareness (Gold/Clarke score)
- Condition or disability that means they are unable to self-monitor but can act upon glycaemic changes
- Is living with a learning disability
- Renal failure on dialysis
- Cystic fibrosis

  Where they require help from a care worker or health care professional to monitor their blood glucose
- See Driver and Vehicle Licensing Agency (DVLA) at a glance guide to the current medical standards of fitness to drive into account when offering self-monitoring of blood glucose levels for adults with type 2 diabetes

https://www.nice.org.uk/guidance/ng28/chapter/Recommendations#blood-glucose-management

6. Primary Care Neuropathic Pain Guidelines (painful Diabetic Neuropathy)

- For the treatment of all neuropathic pain (except trigeminal neuralgia) offer a choice of amitriptyline, duloxetine as initial treatment
  Refer to guidance: treatment to all types of neuropathic pain except trigeminal neuralgia for more details: (Last updated 2020)
  https://www.nice.org.uk/guidance/cg173/chapter/Recommendations#treatment

7. Diabetes Foot Screening

Diabetes leads to 169 amputations a week. "That's 24 amputations a day and 1 amputation every hour. Going to your foot checks and knowing the signs to look out for could prevent this from happening" ***(Diabetes UK Online)***

- Refer patient to your annual diabetes foot check Diabetes UK website for education: https://www.diabetes.org.uk/guide-to-diabetes/complications/feet/what-can-i-expect-at-my-annual-foot-check ***Refer to NICE guidance on assessing the risk of developing a diabetic foot problems***
- When examining the feet of a person with diabetes, remove their shoes, socks, bandages and dressings, and examine both feet for evidence of the following risk factors:
- Neuropathy (use of 10g monofilament a part of a foot sensory examination
- Limb ischaemia (see the NICE guidelines on peripheral arterial disease
- Ulceration
- Callus
- Infection and/or inflammation
- Deformity
- Gangrene
- Charcot arthropathy
- Further reference to NICE: classification of the risk, and managing the risk of developing diabetic foot problem.
  https://www.nice.org.uk/guidance/ng19/chapter/Recommendations#assessing-the-risk-of-developing-a-diabetic-foot-problem
- Check foot pulses before classifying risk
- AH/TS:
  For low risk: normal sensation + palpable pulses provide foot care education *(signpost to Diabetes UK Online)*
  AH/TS to report to RA/AI:

If increased risk of neuropathy + absent pulses or deformities/ callus/corns refer to *Community Podiatry Service for 1 - 3 monthly review *(suggest Feet Focus)*

RA/AI: **For high risk of neuropathy or absent pulses + previous ulcer/amputation refer to **Diabetes Specialist Podiatrist CUH**

RA/AI:

For ulcer/charcot ***refer to hospital (CUH) immediately and inform multidisciplinary foot care service if there are limb- or life-threatening problems.

- See NICE NG19, see visual summary of the antimicrobial prescribing recommendations, including tables to support prescribing decisions: https://www.nice.org.uk/guidance/ng19/resources/visual-summary-pdf-6954030109

8. Adult with Chronic Kidney disease (CKD)/Type 2 Diabetes

- RA: See NICE NG28 for adult with CKD and type 2 diabetes, offer an Angiotensin Receptor Blocker (ARB) or Angiotensin Converting Enzyme inhibitor (ACEi) (titrate to the highest tolerate dose that the person can tolerate) if Albumin – to - Creatinine Ration(ACR) is 3mg/mmol or more https://www.nice.org.uk/guidance/ng28/chapter/Recommendations#reviewing-drug-treatments
- For guidance on SGLT2 inhibitors for adult with CKD and type 2 diabetes refer to: https://www.nice.org.uk/guidance/ng28/chapter/Recommendations#chronic-kidney-disease
- RA: Liaise with Dr Griffin/usual GP for patients with more complex comorbidities

9. Erectile dysfunction

- TS/AI offer men with the opportunity to discuss erectile dysfunction as part of their annual review.
- TS/AI/RA/AI to report to their usual GP to address other contributory factors such cardiovascular disease as well as possible treatment option should they have problematic erectile dysfunction

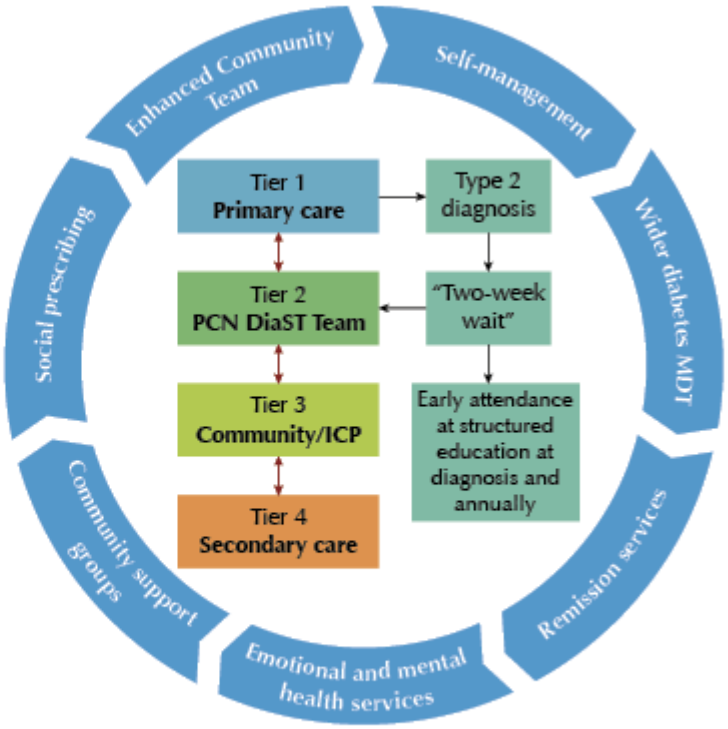
10. Diabetic Retinopathy Screening

- It's the responsibility of the clinician confirming diagnosis to code as type 2 diabetes (type 1 would already have been referred by the hospital)
- AI/TS/RA/AI to encourage adult to attend screening, and explain that it will keep their eyes healthy and help to prevent any problem with their vision

11.Joined-up Care/HbA1c Conversion Chart

Joined-up care

Joined-up working across all wider support services with the person with diabetes at the centre of care, enabling bidirectional flow through the tiers as appropriate during a person's health condition journey.



The healthcare journey for the person with diabetes

Reference: Clinical Guidance, Diabetes & Primary Care, Service Delivery Workforce Issues At a glance guide: Best Practice in the Delivery of Diabetes Care in the Primary Care Network: https://diabetesonthenet.com/wp-content/uploads/pdf/dotn5a8eca746394f4b0ae52ed432ce1e67d.pdf

FOOD FOR THOUGHT!

0.5

PITstop for Diabetes

HbA1c conversion chart

%	Mmol/ mol	%	Mmol/ mol	%	Mmol/ mol	%	Mmol/ mol
5.0	31	7.3	56	9.6	81	11.9	107
5.1	32	7.4	57	9.7	83	12.0	108
5.2	33	7.5	58	9.8	84	12.1	109
5.3	34	7.6	60	9.9	85	12.2	110
5.4	36	7.7	61	10.0	86	12.3	111
5.5	37	7.8	62	10.1	87	12.4	112
5.6	38	7.9	63	10.2	88	12.5	113
5.7	39	8.0	64	10.3	89	12.6	114
5.8	40	8.1	65	10.4	90	12.7	115
5.9	41	8.2	66	10.5	91	12.8	116
6.0	42	8.3	67	10.6	92	12.9	117
6.1	43	8.4	68	10.7	93	13.0	119
6.2	44	8.5	69	10.8	95	13.1	120
6.3	45	8.6	70	10.9	96	13.2	121
6.4	46	8.7	72	11.0	97	13.3	122
6.5	48	8.8	73	11.1	98	13.4	123
6.6	49	8.9	74	11.2	99	13.5	124
6.7	50	9.0	75	11.3	100	13.6	125
6.8	51	9.1	76	11.4	101	13.7	126
6.9	52	9.2	77	11.5	102	13.8	127
7.0	53	9.3	78	11.6	103	13.9	128
7.1	54	9.4	79	11.7	104	14.0	130
7.2	55	9.5	80	11.8	105	14.1	131

- Achieving tight glycaemic control. Rule out hypoglycaemia and discuss reduction of insulin or Sulphonylureas
- Target range to aim for from diagnosis. Good target during pregnancy
- Target to aim for when treated with two diabetes medications or not choosing such a strict target
- Target to aim for when treated with three diabetes medications including injectable therapy or choosing a less strict target
- May be an appropriate target range for people who are frail / elderly (including housebound, or living alone)
- Look at agreeing a new, achievable HbA1c target. Remember the value of reducing an HbA1c by 11mmol/mol (1%)