Clinical Effectiveness South East London

Our Healthier South East London Integrated Care System

NHS South East London Clinical Commissioning Group

Prescribing alert: NICE guidance update (to be ratified by SEL IMOC)

Type 2 diabetes in adults: management (NG28) was updated on 15/2/2022. This includes changes to prescribing guidance. The SEL Integrated Medicines Optimisation Committee (SEL IMOC) will update their T2DM guidance for SEL for the summer of 2022. HbA1c management section of the CESEL T2DM guidance (page 6) will be updated to align with SEL IMOC guidance as soon as it is available.

Type 2 Diabetes Mellitus in Adults

A guide for Greenwich General Practice

Key Messages*

1. Lifestyle: if overweight, agree a weight loss goal of 5–10% of body weight[1]
2. Blood pressure: target BP ≤140/80mmHg (QOF)[2]
3. Cholesterol: statin if QRISK2 or 3 ≥ 10%[3]
4. HbA1c: target ≤ 53mmol/mol (≤7%)[1]

Consider individualising targets and patient goals especially for those with reduced life expectancy, risk of falls and/or significant co-morbidities

***see page 5 for range of targets across NICE , QOF and co-morbidities**

Always work within your knowledge and competency

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Why T2DM in Greenwich?

- Weight management may normalise blood sugar levels without the use of drugs.[4]
- Tight blood pressure control substantially reduces diabetes complications and improves survival.[5]
- Cholesterol lowering drugs reduce the risk of major vascular events.[6]
- Even modest improvements in glucose control reduce incidence of complications including foot ulcers, amputations and neuropathy.[7]
- Supporting patients to stop smoking reduces their risk of premature death, heart disease and other complications.[8]
- Primary care management of, and screening for, diabetes are key areas where improved quality of care could contribute to NHS cost savings.[9]

Risk factors for T2DM[10]

- Age > 40 and Caucasian white/ European
- Age > 25 and African - Caribbean or south Asian
- Family history
- High blood pressure
- BMI> 25 especially apple shape
- History of coronary heart disease or stroke
- Serious mental illness
- Polycystic ovarian syndrome and gestational diabetes
- COVID-19 infection may precipitate a diabetes diagnosis[11]

Calculate T2DM risk using a QDiabetes calculator

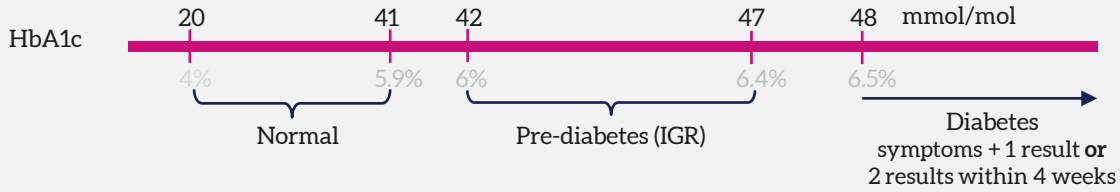
Non-diabetic hyperglycaemia (pre-diabetes)

- Use Ardens Pre-Diabetes template to ensure accurate coding
- Offer referral to NDPP or if this is not accepted, offer referral to Live Well (form available on DXS) for support in making changes to activites and diet that can reduce risks. If LIVE WELL Referral is not accepted offer LIVE WELL number.

Diabetes Prevention Programme
Multiple group sessions and coaching of reducing frequency over 9 months, face to face, on-line and telephone, plus digital only option

Annual review: patient with non-diabetic hyperglycaemia and/or history of gestational diabetes. **Include:** HbA1c, Vital 5: BP, BMI, smoking status, mental health and alcohol intake

Diagnosis using HbA1c[12]



If initial result is within the diagnostic range, follow the above guidance.

HbA1c should be used with caution with abnormal red blood cell turnover/abnormal haemoglobin type (e.g. haemoglobinopathy, severe anaemia, altered red cell life-span e.g. post-splenectomy, recent blood transfusion). For these cases consider a fructosamine assay

HbA1c should not be used to diagnose Type 1 diabetes, T2DM in <18 years, symptoms <2 months, pregnancy, up to 2 months post-partum, end-stage renal disease, acute pancreatic damage, HIV infection or if taking medication linked with hyperglycaemia, e.g. long-term corticosteroids.[12]

New Diagnosis of T2DM

- Support patients to reach an understanding of the diagnosis and implications and what they can do to care for themselves
- Use EMIS or Ardens CE Greenwich diabetes clinical template to ensure accurate coding and include 8CP plus retinal screening
- Emphasise to patients and carers that structured education is integral to their care and refer or encourage self referral to Structured Education Programme – Diabetes Book and Learn, or advise patients to self refer
- Offer family planning and initial pregnancy advice to women of child-bearing age, as part of essential diabetes care
- Use Diabetes UK Information Prescriptions to support personal care (can be downloaded into EMIS)
- Agree a clear review date to include NICE 8CP

Considering pregnancy

Refer to Community Diabetes Single Point Referral, Diabetes Pre-conception clinic KCH or GSTT (ERS)

If pregnant

Refer pregnant women with diabetes to QEH: lg.ge-anreferrals@nhs.net

RED FLAGS

New T2DM, >60 years, weight loss - 2WW referral for suspected cancer of pancreas[13]
HbA1c >85mmol/mol +/- weight loss at diagnosis: consider Type 1, ketosis prone, latent autoimmune diabetes in adults (LADA). Seek specialist advice.

T2DM Eight Care Processes (8CP)

Individualise all targets, review dates and monitoring

Ensure all care processes undertaken at least annually

1 Body Mass Index kg/m^2 [2, 14]

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Overweight

BMI ≥ 25 Caucasian white/European groups; BMI ≥ 23 African-Caribbean and Asian groups

Agree an initial weight loss target of 5–10% of body weight

2 Blood Pressure

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QOF[2,15] ≤140/80mmHg excludes those with moderate or severe frailty

NICE[16] ≤140/90mmHg ≥ 80 years ≤ 150/90mmHg

CKD If ACR ≥ 70 mg/mmol, target BP ≤130/80 mmHg

3 Cholesterol

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Primary prevention[3]:

Offer statin if QRISK2 or 3 ≥ 10% after trial of lifestyle modification

QOF target excludes those with moderate or severe frailty

4 HbA1c[1,17]

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It takes 3 months from medication dose change to see HbA1c change.

Check 3 monthly until stable, then 6 monthly. Target:

≤48mmol/mol (6.5%) unless taking a drug that could cause adverse low sugars/hypos e.g. gliclazide, insulin

≤53mmol/mol (7%) if on a drug that **could** cause low sugars/hypos

Patients with moderate/severe frailty: QOF target ≤75 mmol/mol (9%)

Individualise target especially for those with reduced life expectancy, risk of falls and/or significant co-morbidities.

5 Smoking

Ensure you are trained to deliver Very Brief Advice (VBA)

ASK ADVISE ACT Very Brief Advice Training Module

If ready to quit refer to appropriate local service.

6 + 7 Renal function and albumin creatinine ratio (ACR) [18]

ACR ≥ 3mg/mmol is clinically significant

Ideally early morning urine, **then confirm any ACR between 3mg/mmol and 70mg/mmol with a repeat early morning sample. Repeat not needed if initial ACR is 70 or more" (as per NICE CKD guidelines.)**

Nephropathy – start an ACEI/ARB even if normotensive

Consider CKD if low eGFR and raised ACR and use the OneLondon Diabetic Kidney Disease Risk Stratification to identify those at high risk of diabetic kidney disease progression for patients with eGFR<45ml/min[19] (ethnic correction

8 Foot Check[22]

Medium risk – neuropathy or absent pulse ➢Refer to Podiatry Community Clinic (DXS)

High risk – neuropathy or absent pulse + plus deformity or skin changes in previous ulcer ➢ Urgently Refer to Podiatry Community Clinic (DXS)

Active ulcer/infection/ischaemia ➢ Acute QEH diabetic foot clinic (g.qeh-acutefootservice@nhs.net or lg.qediabetes@nhs.net) or A&E out of hours

Referral details on Diabetic Foot Pathway for Greenwich[23] (DXS)

Resources:

For clinicians: Annual foot review pathway, Diabetes UK

Diabetic foot infection: antimicrobial prescribing, NICE

- Retinopathy screening within 3 months of diagnosis and at least annually[1] Patients are called automatically once coded for T2DM, check this is happening at annual review (contact number 0207 188 7188)
- Vital 5: includes mental health and alcohol intake
- Flu annually and pneumococcal immunisation once[10]

National Diabetes Audit: 8CP and the triple target of BP 140/80, HbA1c ≤ 57 mmol/mol (7.5%), cholesterol control Qrisk ≥ 10%[20]

Identify and address all modifiable risk factors → **Individualise targets and goals, especially for those with moderate or severe frailty** → **Check understanding and adherence and set a review date**

Weight Management[1,14,24]

ACTIVITY	
For all	Increased physical activity, even in absence of weight loss, brings health benefits
To prevent obesity	45-60 minutes moderate intensity exercise a day
With a history of obesity	60-90 minutes moderate intensity exercise a day to avoid regaining weight

WHEN TO OFFER REFERRAL FOR WEIGHT MANAGEMENT

General advice on healthy weight and lifestyle to all patients with T2DM. Tailor interventions to patients' circumstances and choices. Signpost to local resources.
BAME: BMI ≥ 27.5, offer referral to Digital Weight Management Programme

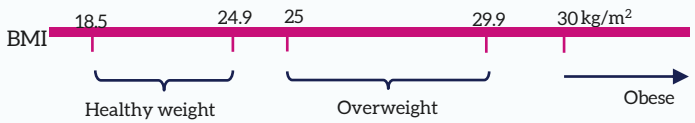
BMI ≥ 30kg/m²

Offer referral: **Tier 2**: Weight Loss with Better (DXS 'Healthwise Tier 2 referral form')
Or
NHS England Digital Weight Management Programme
NHS England » The NHS Digital Weight Management Programme

BMI ≥ 30kg/m² with T2DM or BMI ≥ 35kg/m²

Offer referral: 4 Healthy Weight Greenwich (DXS)
eRS Dietetics, Weight management, SEL Tier 3 Healthy Weight
Include BP, BMI, HbA1c, lipid profile and creatinine

BMI: weight (kg)/height (m²)



Adults from Black, Asian and other minority ethnic groups with a BMI ≥23 are at increased risk and ≥27.5 are at high risk of developing complications.
BMI Limitations: can't differentiate between excess fat, muscle or bone
Waist Circumference: Weight loss is suggested if result >94cm/men and >80cm/women

Blood pressure[1,2,16]

Diagnosis
See Greenwich Hypertension Guide

Target
QOF[15]: ≤140/80mmHg
(excludes those with moderate or severe frailty)
NICE[16] ≤140/90mmHg ≥ 80 years ≤ 150/90mmHg
CKD if ACR ≥ 70 mg/mmol, target BP ≤130/80

- Measure standing and sitting BP in patients with T2DM. If a significant postural drop (≥20mmHg SBP) – review medication and treat to target on the standing BP
- Confirm diagnosis with ABPM or HBPM

Home BP readings

- Corresponding HBPM measures are 5mmHg lower than clinic measures
- Ensure accurate BP machine and advise to record two BP readings every morning and evening for 7 days (see link for list of recommended BHIS machines)[29]
- Disregard the first days readings and take an average of all other readings
- Sign post patients to British Heart Foundation advice; send as an Accurx link
- Flory template to help patients record BP available

Consider hypotension if BP ≤90/60mmHg with symptoms and reduce medication accordingly (may limit up titration of doses).

Step 1: ACEI or ARB* → ramipril/lisinopril or losartan

Optimise medication to most effective tolerated dose, and check adherence at each step, before stepping up

Step 2: ACEI or ARB* + CCB or thiazide-like diuretic
ramipril/lisinopril or losartan | amlodipine or indapamide (IR)

Step 3: ACEI or ARB*+ CCB + thiazide-like diuretic

If uncontrolled on optimal doses regard as resistant hypertension. **Repeat ABPM/HBPM, assess for postural hypotension, discuss adherence**

Step 4: If good renal function and potassium ≤4.5 mmol/L consider low dose spironolactone
If potassium > 4.5mmol/L and/or reduced renal function, consider alpha blocker (doxazosin) or beta-blocker (atenolol/bisoprolol) and/or seeking specialist advice

*For people of Black African or African – Caribbean origin, use ARB instead of ACEI (as increased risk of angioedema with ACEI)

Drugs to avoid at conception/in pregnancy include:

ACEI/ARB/thiazide or thiazide-like diuretic (increased risk of congenital abnormalities). Use Labetalol if no CI, nifedipine or methyldopa. Can also remain on amlodipine – GSTT Obstetric Medicine advice Target BP ≤ 135/85 mmHg

Refer to Hypertension in Pregnancy clinic (GSTT) ASAP

See Page 11: local weight management resources

Identify and address all modifiable risk factors → Individualise targets and goals, especially for those with moderate or severe frailty → Check understanding and adherence and set a review date

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Cholesterol Management [2,3]

Baseline bloods (non-fasting lipid profile, LFTs, HbA1c, thyroid and renal function)
LFTs check within 3 months of starting statin therapy and at 12 months.
Check lipid profile annually
Target reduction of ≥ 40% reduction in non-HDL cholesterol from baseline
Non-HDL cholesterol = Total cholesterol minus HDL cholesterol

Primary Prevention

Offer daily statin if QRISK2 or 3 ≥ 10% after addressing modifiable risk factors (QRISK not applicable to familial hypercholesterolaemia or CKD/albuminuria)
Atorvastatin 20mg – (or maximum tolerated dose) [alternative is rosuvastatin 10mg]
If after 3 months not achieved ≥ 40% reduction in non-HDL cholesterol from baseline, consider up titration of statin **to a maximum dose of Atorvastatin 80mg** [alternative is rosuvastatin 20mg]
If intolerant to higher dose consider adding ezetimibe 10mg daily. If intolerant to statins (start ezetimbe) and refer to lipid clinic.
If still not achieving ≥ 40% reduction in non-HDL cholesterol, refer to lipid clinic
For patients with cardiovascular disease see secondary prevention e.g. stroke, PVD, CHD

Secondary Prevention

For patients with history of CVD, including MI, angina, stroke/TIA, peripheral vascular disease, abdominal aortic aneurysm:

Ensure patient offered daily, high dose, high intensity statin:

Atorvastatin 40-80mg (or maximum tolerated dose) [alternative is rosuvastatin 20mg]
If after 3 months if not achieved ≥ 40% reduction in non-HDL cholesterol from baseline, and on maximum tolerated dose, consider adding ezetimibe 10mg daily

If after 3 months not achieved ≥ 40% reduction in non-HDL cholesterol from baseline- refer lipid clinic

(If no baseline value: consider a target non-HDL cholesterol < 2.5mmol/L or LDL cholesterol <2mmol/L)

see SEL Lipid Management 2021 for more details including: management of intolerance, shared decision making, familial hypercholesterolaemia, management of triglycerides, referral criteria

QOF DM022. The percentage of patients with diabetes aged 40 years and over, with no history of cardiovascular disease and without moderate or severe frailty, who are currently treated with a statin (excluding patients with type 2 diabetes and a CVD risk score of <10% recorded in the preceding 3 years)(maximum achievement 90%)

HbA1c management [1,2,17]

Step 1 (3 months)
Person centred lifestyle advice
If HbA1c ≥ 48mmol/mol (6.5%)* go to Step 2

Step 2 (3 months from dose change)
Metformin standard release
Start 500mg daily with/after food and increase by 500mg every 2 weeks until on 1g bd (MR if GI side effects)
Aim for HbA1c of ≤ 48mmol/mol (6.5%)*
If HbA1c ≥ 58mmol/mol (7.5%)* go to step 3

1st intensification

Step 3 (3 months from dose change)
Gliclazide: preferred 2nd-line for most patients[16] (guidance under review)
Consider alternative to gliclazide (Gliptins, SGLT-2 and Pioglitazone) especially if BMI≥35, frail elderly or concern regarding hypoglycaemia e.g. Group 2 driver[26]:
Gliclazide dose 40mg-80mg once to twice daily with meals
Titrate on pre-meal blood glucose target 4-6mmol/mol, individualised BM target or HbA1c
If HbA1c ≥ 58mmol/mol (7.5%)* go to step 4

2nd intensification

Step 4 (3 months from dose change)
Third agent needed, considering insulin or contra-indications to metformin or gliclazide?
Refer to South East London Blood Glucose Control Management Pathway for Adults with Type 2 Diabetes Mellitus

*Individualise targets and goals. Patients with moderate or severe frailty the QOF target is ≤75 mmol/mol (9%)

Guidance aligns with SEL IMOC Blood Glucose Control Management Pathway for Adults with Type 2 Diabetes

Need Help?

Community Hypertension and Lipid Clinic: DXS referral or email for advice gst-tr.KHPCommunityCVD@nhs.net see SEL Lipid Management 2021 for criteria

Community Diabetes Clinic Single Point Referral or Advice and Guidance (ERS)

T2DM REVIEW (at least once a year)

	Tasks/Activity	Who?	Where?	Tools/Support
Review planning	**Call/recall planning:** Use CE Greenwich searches to help decide who prioritise for review	Admin colleague with clinician support: GP/nurse/pharmacist		Ardens CE Greenwich and UCLP searches available on your EMIS system, ask CE leads for advice
Pre-patient review	**Contact patient for:** 1. **Bloods:** renal function, FBC, lipids, HbA1c & urine ACR 2. **BP measurement:** in practice or home monitoring 3. **Weight and height:** home measurements especially for remote reviews	HCA/GP Nurse/pharmacist	Remote or F2F	Accurx and E-consult have diabetes review for pre-review information gathering text/contact patient to encourage to complete ahead of review.
Patient review	• **Ask the patient their concerns, expectations, and questions** • **Review trend for BMI and BP** • **Review investigations:** urine ACR, renal function, HbA1c, cholesterol • **Re-calculate QRISK2 or 3** for primary prevention • **Discuss risk-reduction + life-style**: in context of QRISK2 or 3, Vital 5 and COVID risk • **Medication review**: any concerns with a focus on side-effects and adherence. Signpost to community pharmacy by adding note to prescription when starting a new medication for support under New Medicines Service. Ensure renal function, HbA1c, cholesterol and BP satisfactory and adjust medications if needed. • **Foot check examination and advice on foot care** - share link via Accurx Diabetes UK advice on Footcare • **Eye check:** Check patient is receiving annual eye check ups • **Driving:** Use Driver and Vehicle Licensing Agency (DVLA)'s Assessing fitness to drive: a guide for medical professionals to guide into account self-monitoring of blood glucose levels for adults with type 2 diabetes[25].	GP/GP Nurse/pharmacist	Remote or F2F	Use clinical templates: CES T2DM template or Ardens Diabetes (ensures correct coding, annual review, medication review & Vital5) Sign post to Diabetes Book and Learn for structured education
	• **Goal setting** • **Self management** • **Referral/signposting to community resources** (see page 11)	GP/GP nurse/pharmacist or social prescribing link worker & Patient		Self-management resources - send links via AccuRx. Diabetes UK Information Prescriptions to support personal care
	• **Follow-up plans:** agreed with patient e.g. review BP monthly until it is at target, HbA1c every 3 months until at target and then 6 monthly	GP/GP Nurse/pharmacist		

QRISK 2 or 3

Currently a QRISK2 'calculator' is integrated into EMIS, however a link to a more inclusive CV risk score QRISK3 can be found here .
For several conditions QRISK2 will underestimate people's risk e.g. severe mental illness and rheumatological conditions. The calculated CV risk is an estimate. Clinical judgement is required to adjust for factors that the risk calculator does not take into account.
QRISK is not applicable in people who are considered at high-risk of CVD (Type 1DM, CKD 3-5) and those with pre-existing CVD/previous Stroke/TIA as they should they already be lipid modification treatment.

Principles of remote monitoring: See CES LTC during COVID-19 guide

DIABETES REVIEW

Dietary advice Diabetes UK

- Eat plenty of vegetables
- Have sufficient fibre in your diet
- Eat fish, especially oily fish (mackerel, salmon, sardines) regularly
- Cut down on:
  - sugary food and drinks
  - energy dense foods such as crisps, cakes, biscuits and pastries
  - alcohol
  - salty, processed foods

Consider doing the CDEP Nutrition learning module to increase your knowledge of diet and T2DM.

Goal setting

Support your patients to make SMART goals e.g.

Specific: 'I want to lose weight'

Measurable: 'I'll aim to lose 2kg'

Achievable: 'I attend a Book and Learn course to help me'

Realistic: 'I'll ask my family to help too'

Timed: 'I will do this over the next 6 months'

Watch this short patient video on achieving goals

Personalised Care

'A one-size-fits-all health and care system simply cannot meet the increasing complexity of people's needs and expectations. Personalised care is based on 'what matters' to people and their individual strengths and needs.' NHS England

Consider learning through the Personalised Care Institute, or encouraging patients to work with a Social Prescribing Link Worker (SPLW) to help take control of their T2DM management.

SICK DAY RULES [26,27]

- As part of the management plan, blood glucose monitoring should be increased when unwell to prevent diabetic ketoacidosis or hypoglycaemia
- Maintain fluid and carbohydrate intake. Sugary fluids if glucose low and sugar-free fluids if glucose high
- NEVER stop insulin: change dose of insulin and gliclazide according to glucose readings

SADMANS rules

Consider stopping these classes of drugs temporarily during dehydrating illness, and restarting once able to eat and drink regularly for 24-48hrs

S	SGLT2 inhibitors	**M**	Metformin
A	ACE inhibitors	**A**	ARBs
D	Diuretics	**N**	NSAIDs
		S	Sulfonylureas

Patients should seek medical advice if they:

- have no access to glucose monitoring and experience symptoms of high glucose – e.g. thirst, polyuria, fatigue
- are unable to maintain hydration or take carbohydrates due to vomiting
- have persistently high or low glucose despite altering medication doses
- other concerns

If changing medication doses remember to change them back when better i.e. eating and drinking normally for 2 days.

Patient Information Leaflet: Type 2 Diabetes: What to do when you are ill (TREND)

London Clinical Network Guidance Sick day rules: how to manage Type 2 diabetes if you become unwell with coronavirus and what to do with your medication

NHS Video library guide to using glucometer

(send links via Accurx)

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T2DM: Preferred Medication[1,3,16,28]

	Drug	Starting dose	Daily Range	**Notes** (these are not extensive, please refer to the latest BNF for further information especially titration increments/cautions/contra-indications)
Biguanide	Metformin	500mg OD	Metformin standard release Start 500mg daily with/after food and increase by 500mg every 2 weeks until on 1g BD or maximum tolerated dose	• Ensure corrected eGFR >45ml/min, or review dose. Contraindicated if corrected eGFR <30ml/min. Routine renal function at least annually, 6 monthly for those at risk of renal impairment. • Consider slow-release preparation if standard preparation causes gastrointestinal side effects. • Take with meals to reduce gastrointestinal side effects • Remember sick day rules ☛ p.8 • Manufacturer advises patients and carers should be informed to seek urgent medical advice if symptoms of lactic acidosis e.g. dyspnoea, cramps, abdominal pain
Sulfonylureas	Gliclazide	40mg – 80mg daily	160mg-320 mg daily, doses over 160mg divided. Titrate every 2 weeks according to pre-meal blood glucose – 4-6mmol/L or individualised target or against 3 monthly HbA1c.	• Inform patients of risk of adverse events/hypoglycaemia, particularly if renal impairment • Advise patients on how to manage hypoglycaemia • Use with care in those with mild to moderate renal impairment (eGFR 30-60ml/min), only prescribe under specialist advice in severe impairment (eGFR <30ml/min) • Self monitor according to DVLA guidance and consider alternative if Group 2 driver (large lorries and buses) • Consider alternative if BMI >35 • Care with frail elderly, housebound and certain occupations e.g., working heavy machinery
ACEI	1st line Ramipril	2.5mg OD (1.25mg OD in frail/elderly patients)	2.5mg-10mg OD	• For people of Black African or African-Caribbean family origin, use ARB instead of ACEI (as increased risk of angioedema with ACEI) • Check base line U&Es and renal profile (Na/K/Cr/eGFR). Hyperkalaemia may occur, therefore close monitoring of serum potassium is required • Re-check renal profile within 2 weeks of initiation or dose increase and then at least annually. • **Titrate ACEI/ARB up at 2-4 weekly intervals to achieve optimal BP control** • Initiation/dose titration: if Cr increases by >20% (or eGFR falls by >15%) stop ACEI and seek specialist advice. ACEI dose should only be increased if serum creatinine increases by <20% (or eGFR falls by <15%) after each dose titration and potassium <5.5mmol • **ACEI/ARB dose should be optimised before the addition of a second agent** • Side effects: symptomatic hypotension can occur on first dosing – suggest take at night. Dry cough with ACEI, consider switch to ARB • **Caution:** Do not combine ACEI and ARB to treat hypertension • For diabetic nephropathy ARB of choice: losartan and irbesartan
	2nd line Lisinopril	10mg OD	10-80mg OD (maintenance dose 20mg for hypertension)	
ARBs	Losartan	50mg OD (25mg OD if >75yrs old)	50-100mg OD	
	Candesartan	8mg OD	8mg-32mg OD	

Latest NICE CKD guidance (August 2021) does **not** recommend adjusting the estimation of glomerular filtration rate (GFR) in people of Black African or African-Caribbean family background

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	Drug	Starting dose	Daily Range	**Notes** (these are not extensive, please refer to the latest BNF for further information especially titration increments/cautions/contra-indications)
CCBs	Amlodipine	5mg OD	5-10mg OD	• Increase after 2-4 weeks to maximum dose of 10mg OD. • Caution: Interacts with simvastatin – consider switching to atorvastatin. • If amlodipine causes ankle oedema consider using a thiazide-like diuretic instead • **CI:** unstable angina, aortic stenosis, severe hypotension • Side effects include flushing and headaches at initiation; swollen ankles especially at higher doses
Thiazide-like diuretics	Indapamide (IR)	2.5mg OD	2.5mg OD	• Check baseline renal profile, then after 2 weeks, then at least annually. If K < 3.5mmol/L or eGFR <25ml/min, stop indapamide and seek specialist advice.
Aldosterone receptor antagonist (K+ sparing diuretic)	Spironolactone	25mg OD	25mg OD	• Step 4: Spironolactone is the preferred diuretic at step 4 (NICE), but is an unlicensed indication in resistant hypertension (BNF) • Consider only if potassium ≤4.5mmol/L (caution in reduced eGFR <30ml/min, as increased risk of hyperkalaemia). Monitor Na/K/renal function within 1 month and repeat 6 monthly thereafter • If K>4.5mmol/L should be stopped.
α-B	Doxazosin (IR)	1mg OD	2-16mg OD (or BD dosing when >8mg/day)	• Consider at Step 4 if potassium ≥ 4.5mmol/L. Initial dose of 1mg usually increased after 1-2 weeks to 2mg OD • At doses above 8mg/day, consider split dosing from OD to BD to reduce BP variation • **Caution:** Initial dose as may cause postural hypotension, avoid in elderly as orthostatic hypotension risk
β-B	Atenolol	25mg OD	25-50mg OD	• Consider at Step 4 if potassium ≥ 4.5mmol/L. • **Particular caution in T2DM – symptoms of hypoglycaemia may be masked.** • Beta blockers may be considered in younger people and in those with an intolerance/CI to ACEI/ARBs, women of childbearing potential, co-existent anxiety/tachycardia/heart failure. • **CI:** asthma, 2nd/3rd degree AV block, severe PAD • **Caution:** beta blockers can cause bradycardia if combined with certain CCBs e.g. Verapamil/Diltiazem
	Bisoprolol	5-10mg OD	5-20mg OD	
Statin (See page 6)	Atorvastatin (alternative is rosuvastatin)	20mg OD	20-80mg OD	• Seek specialist advice if eGFR <30ml/min, liver disease, untreated hypothyroidism, heavy drinker • **CI** in pregnancy, breast feeding, avoid or address contraceptive needs women of childbearing age. Advise to stop 3 months before conception. • Multiple drug interactions, check BNF for advice, avoid grapefruit juice • Advise patient to visit GP if they experience unexplained muscle pains • Refer to SEL IMOC Guidelines on Lipid Management

Educational Resources

https://pitstopdiabetes.co.uk/ comprehensive, competence based learning.

Free for all Greenwich clinicians (email: Kirsty.ayton@nhs.net)

www.cdep.org.uk

Diabetes in Healthcare Diabetes UK free on line learning for health professionals

RCGP Diabetes Hub

Personalised Care Institute

Primary Care Diabetes Society

Patient Resources

Live Well Greenwich – Diabetes Community resources for patient support

Health Lifestyle Hub – access via NHS Health Checks

Diabetes Book and Learn: NHS south London Diabetes Education Booking Service.

Diabetes UK - Local Groups - Greenwich Nepalese local group (diabetesukgroup.org) support and information for Greenwich Nepalese group with diabetes and their carers.

HEAL-D – Healthy Eating & Active Lifestyles for Diabetes in African & Caribbean communities (DXS)

Diabetes UK website

Health and Care patient information videos on range of diabetes topics

Greenwich clinical support

Full range of diabetes services in Greenwich available on DXS

3TT Service: Support in the managing the poorest controlled diabetes in Greenwich, with a HBA1c >75. Email DSN: greenwichhealth.diabetes@nhs.net

Podiatry: Refer via Email: oxl-tr.podiatry@nhs.net. Tel 020 8320 3550

Greenwich Intermediate Diabetes service (via Oxleas)- Support GHL/practices to help patients meet 3TT in those with HbA1C >75. Offer home visits and insulin/GLP 1 initiation. Email: samathacunningham@nhs.net or Siobhan.linane@nhs.net

Urgent telephone advice- Consultant connect: (your practice will have been given its own specific telephone number)

Non-urgent 'Advice & Guidance'- vie ERS

T2DM and COVID-19

See SEL resources including **Managing T2DM during COVID pandemic**

and COVID-19: SEL **Diabetes High Risk Foot Disease Pro-active Management Proforma**

Quality Improvement Resource

RCGP Quality Improvement Toolkit for Diabetes Care

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Abbreviations

2WW – Two week wait referral
α-B – Alpha blocker
A&E – Accident and Emergency
ABPM – Ambulatory blood pressure monitoring
ACEI– Angiotensin converting enzyme inhibitor
ACR – Albumin-creatinine ratio
ALT – Alanine aminotransferase
APL – Active Patient Link tools
ARB – Angiotensin receptor blocker
AST – Aspartate aminotransferase
BAME – Black, Asian and Minority Ethnic
β-B – Beta blocker
BD – Twice daily (dosing)
BM- Blood monitoring
BMI – Body mass index
BNF - British National Formulary
BP – Blood Pressure
CDEP – Cambridge diabetes Education Programme
CES – Clinical Effectiveness Southwark
CCB – Calcium channel blocker
CI – contra-indication
CK – Creatinine Kinase
CKD – Chronic Kidney Disease
Cr – Creatinine
CVD – Cardiovascular disease
DASH – Dietary approaches to stop hypertension
DESMOND – Diabetes Education and Self-Management for Ongoing and Diagnosed
DPP – Diabetes Prevention Programme
DVLA – Driver and Vehicle Licensing Agency
DXS – Point-of-care tool for EMIS Web
ECG – Electrocardiogram
eGFR – Estimated glomerular filtration rate
ERS – Electronic Referral System
F2F – Face to face
FBC – Full blood count
GSTT – Guy's and St. Thomas' Hospital
GI – Gastro-intestinal
IGR – Impaired Glucose Regulation
IR – Immediate release
K – Potassium
KCH – King's College Hospital
HbA1c – Haemoglobin A1c %
HBPM– Home blood pressure monitoring
HDL – High-density lipoprotein
IGR – Impaired glucose regulation
IHD – Ischaemic Heart Disease
LFT – Liver function tests
LADA – Latent autoimmune diabetes in adults
LDL – Low-density lipoprotein
MI – Myocardial infarction
NDA – National Diabetes Audit
NICE – The National Institute for Health and Care Excellence
NSAID – Non steroidal anti-inflammatory
OD – Once daily (dosing)
PAD – Peripheral Arterial Disease
PCOS – Polycystic Ovarian Syndrome
PHM – Population health management (contract)
PLT – Protected Learning Time
PMS – Primary medical services (contract)
QOF – Quality and outcomes framework (contract)
QRISK2 – a prediction algorithm for CVD. EMIS currently using QRISK2 (although QRISK3 released in 2017)
RCGP – Royal College of General Practitioners
Renal profile – this includes serum sodium/potassium/creatinine/eGFR
SELAPC – South East London Area Prescribing Committee
SEL – South East London
SBP – Systolic blood pressure
SPC – Summary of product characteristics
SPLW – Social Prescribing Link Worker
T2DM – Type 2 Diabetes Mellitus
TIA – Transient ischaemic attack
TFT – Thyroid function blood tests

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January 2022 (to be reviewed July 2022), or earlier if required