

**Prescribing alert: NICE guidance update**

Type 2 diabetes in adults: management (NG28) was updated on 15/2/22. 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 Southwark General Practice

### Key Messages\*

1. Lifestyle: if overweight, agree a weight loss goal of 5–10% of body weight<sup>1</sup>
2. Blood pressure: target BP  $\leq 140/80$ mmHg (QOF)<sup>2</sup>
3. Cholesterol: statin if QRISK2 or 3  $\geq 10\%$ <sup>3</sup>
4. HbA1c: target  $\leq 53$ mmol/mol ( $\leq 7\%$ )<sup>1</sup>

#### Individualise targets and patient goals

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

Always work within your knowledge and competency

## CONTENTS

Diagnosis and risks	3
Care processes	4
Weight management and BP	5
Cholesterol and HbA1c management	6
Diabetes review	7,8
Sick day rules	8
Preferred medication	9,10
Resources	11
References and abbreviations	12

## Why T2DM in Southwark?

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

### Risk factors for T2DM<sup>10</sup>

- Age > 40 and Caucasian white
- 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<sup>11</sup>

Calculate T2DM risk using a [QDiabetes calculator](#)

### Non-diabetic hyperglycaemia (pre-diabetes)



- Use CES Pre-Diabetes template to ensure accurate coding
- Offer structured education: covering nutritional and physical activity support, with strategies and tools to help make change.

#### Walking away from diabetes

2 sessions over 1 month  
On-line and telephone

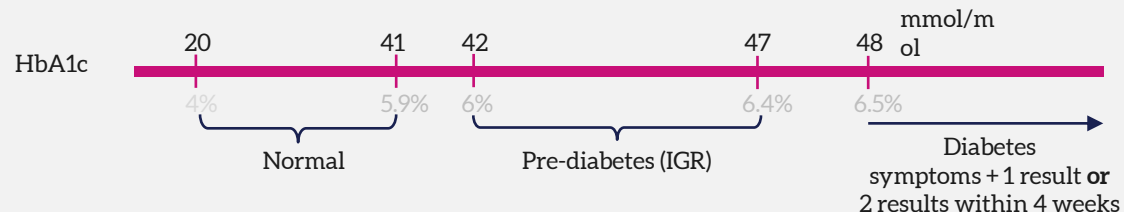
#### Diabetes Prevention Programme

13 sessions over 12+ months  
On-line and telephone

Federation monthly search – will send offer to patients who have not previously attended or use referral form on DXS.

**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<sup>12</sup>



If initial result is within the diagnostic range, repeat as soon as possible. HbA1c should be used with caution with abnormal red blood cell turnover/abnormal haemoglobin type (including haemoglobinopathy, severe anaemia, altered red cell life-span e.g. post-splenectomy, recent blood transfusion). HbA1c should not be used to diagnose Type 1 diabetes, T2DM in <30 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.<sup>12</sup>

### 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 Ardens or CES diabetes clinical template to ensure accurate coding
- 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
- Use [Diabetes UK Information Prescriptions to support personal care](#) (can be downloaded into EMIS)
- Agree a clear review date

### Considering pregnancy

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

### RED FLAGS

**New T2DM, >60 years, weight loss** - 2WW referral for suspected cancer of pancreas<sup>13</sup>  
**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<sup>2</sup>** Page 5

Overweight  
 BMI ≥ 25 Caucasian white groups, BMI ≥ 23 Black African, African Caribbean and Asian groups  
 Agree an initial weight loss target of 5–10% of body weight
- 2** **Blood Pressure** Page 5

**QOF<sup>2,15</sup>** ≤140/80mmHg excludes those with moderate or severe frailty  
**NICE<sup>16</sup>** ≤140/90mmHg ≥ 80 years ≤ 150/90mmHg  
 CKD If ACR ≥ 70 mg/mmol, target BP ≤130/80 mmHg
- 3** **Cholesterol** Page 6

Primary prevention<sup>3</sup>:  
 Offer statin if QRISK2 or 3 ≥ 10% after trial of lifestyle modification  
 QOF target excludes those with moderate or severe frailty
- 4** **HbA1c<sup>1,17</sup>** Page 6

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** **Renal function and albumin creatinine ratio (ACR)** <sup>18</sup>

ACR ≥ 3mg/mmol is clinically significant

Ideally early morning urine, if random sample then confirm any raised ACR with early morning sample

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<sup>19</sup>
- 7** **+**
- 8** **Foot Check<sup>22</sup>**

**Medium risk** – neuropathy or absent pulse ➤ Refer to Podiatry Community Clinic

**High risk** – neuropathy or absent pulse + plus deformity or skin changes in previous ulcer ➤ Urgently Refer to Podiatry Community Clinic

**Active ulcer/infection/ischaemia** ➤ Urgent KCH diabetic foot clinic, GSTT foot health or A&E out of hours

Referral details on Diabetic Foot Pathway for Southwark and Lambeth<sup>23</sup> (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<sup>1</sup>  
 Patients are called automatically once coded for T2DM, check this is happening at annual review.
  - **Vital 5:** includes mental health and alcohol intake
  - Flu annually and pneumococcal immunisation once<sup>10</sup>

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<sup>1,14,24</sup>**

**ACTIVITY**

<b>For all</b>	Increased physical activity, even in absence of weight loss, brings health benefits
<b>To prevent obesity</b>	45-60 minutes moderate intensity exercise a day
<b>With a history of obesity</b>	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. Consider referral at lower BMI for patients from BAME backgrounds.

**BMI ≥ 30kg/m<sup>2</sup>**

Offer referral: **Tier 2:** Southwark Healthy Weight Programme DXS 'Southwark Tier 2 referral form'

**BMI ≥ 35kg/m<sup>2</sup>**

Offer referral: **Tier 3:** SEL healthy weight programme eRS Dietetics, Weight management, SEL Tier 3 Healthy Weight Include BP, BMI, HbA1c, lipid profile and creatinine

**Would consider surgery + BMI ≥35kg/m<sup>2</sup>**

Offer referral: **Tier 4:** Bariatric Service Kings and GSTT ERS - GI and Liver.

Must include details of completed Tier 3 programme for eligibility.

Newly diagnosed: discuss referral to bariatric surgery team patients with BMI 30-34.9kg/m<sup>2</sup>

See Page 11: local weight management resources

**Blood pressure<sup>1,2,16</sup>**

**Diagnosis**

See [CES hypertension guide](#)

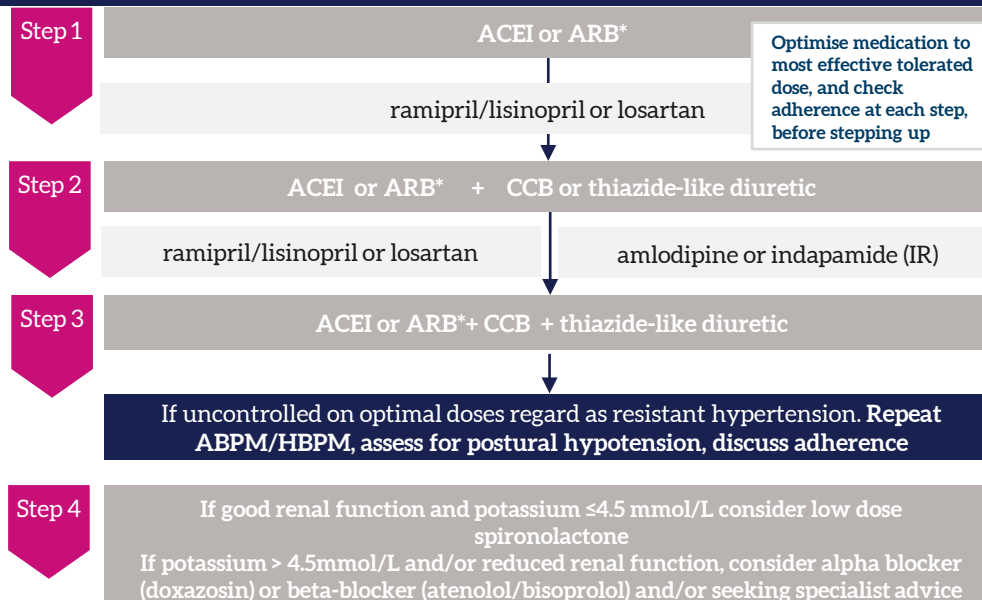
**Target**

**QOF<sup>15</sup>:** ≤140/80mmHg  
(excludes those with moderate or severe frailty)

**NICE<sup>16</sup>** ≤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
  - 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

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



\*For people of Black African or African-Caribbean family 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](#)

**Prescribing alert: NICE guidance update**

**Type 2 diabetes in adults: management (NG28)** was updated on 15/2/22. 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. This section of the CESEL T2DM guidance will be updated to align with SEL IMOC guidance as soon as it is available.

**Cholesterol Management** <sup>2,3</sup>

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 ezetimibe) 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**

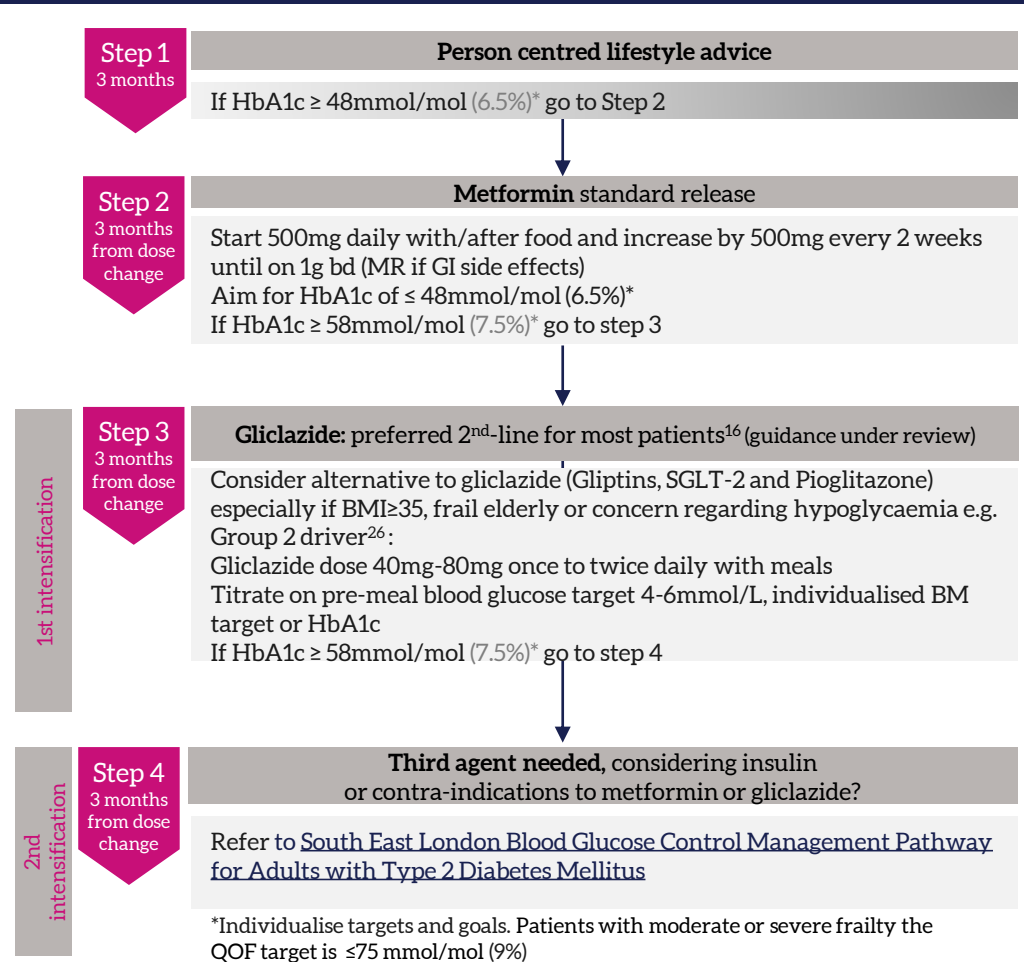
For patients with history of CVD, including MI, angina, stroke/TIA, peripheral vascular disease, abdominal aortic aneurysm:  
Ensure patient offered daily, high dose, high intensity statin:  
**Atorvastatin 40-80mg** (or maximum tolerated dose) [alternative is rosuvastatin 20mg]  
If after 3 months not 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)

**Need Help?**

Community Hypertension and Lipid Clinic: DXS referral or email for advice [gst.tr.KHPCCommunityCVD@nhs.net](mailto:gst.tr.KHPCCommunityCVD@nhs.net) see [SEL Lipid Management 2021](#) for criteria

**HbA1c management** <sup>1,2,17</sup>

Guidance aligns with [SEL IMOC Blood Glucose Control Management Pathway for Adults with Type 2 Diabetes](#)

Community Diabetes Clinic Single Point Referral or Advice and Guidance (ERS) or arrange a Diabetes Virtual Clinic via your Federation (QHS or IHL)

## T2DM REVIEW (at least once a year)

Principles of remote monitoring: See [CES LTC during COVID-19 guide](#)

Tasks/Activity	Who?	Where?	Tools/Support
<b>Review planning</b> Call/recall planning: Use CES searches to help decide who to prioritise for review	Admin colleague with clinician support: GP/nurse/pharmacist		CES, Ardens and <a href="#">UCLP searches</a> available on your EMIS system, ask Federation or CE leads for advice
<b>Pre-patient review</b> <b>Contact patient for:</b> 1. <b>Bloods:</b> renal function, FBC, lipids, HbA1c & urine ACR 2. <b>BP measurement:</b> in practice or home monitoring 3. <b>Weight and height:</b> 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.
<b>Patient review</b> <ul style="list-style-type: none"> <li>Ask the patient their concerns, expectations, and questions</li> <li>Review trend for BMI and BP</li> <li>Review investigations: urine ACR, renal function, HbA1c, cholesterol</li> <li>Re-calculate QRISK2 or 3 for primary prevention</li> <li>Discuss risk-reduction + life-style: in context of QRISK2 or 3, <a href="#">Vital5</a> and COVID risk</li> <li>Medication review: any concerns with a focus on side-effects and adherence. Signpost to community pharmacy for <a href="#">New Medicines Service</a>. Ensure renal function, HbA1c, cholesterol and BP satisfactory and adjust medications if needed.</li> <li>Foot check examination and advice on foot care - share link via <a href="#">Accurx Diabetes UK advice on Footcare</a></li> <li>Eye check: Check patient is receiving annual eye check ups</li> <li>Driving: Use <a href="#">Driver and Vehicle Licensing Agency (DVLA)'s Assessing fitness to drive: a guide for medical professionals</a> to guide into account self-monitoring of blood glucose levels for adults with type 2 diabetes<sup>25</sup>.</li> </ul>	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 <a href="#">Diabetes Book and Learn</a> for structured education
	<ul style="list-style-type: none"> <li>Goal setting</li> <li>Self management</li> <li>Referral/signposting to community resources (see page 11)</li> </ul>	GP/GP nurse/pharmacist or social prescribing link worker & Patient	
<ul style="list-style-type: none"> <li>Follow-up plans: agreed with patient e.g. review BP monthly until it is at target, HbA1c every 3 months until at target</li> </ul>	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 on lipid modification treatment.

## 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 <sup>26,27</sup>

- If available increase glucose monitoring to at least 4 times a day when unwell
- 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

<b>S</b>	SGLT2 inhibitors	<b>M</b>	Metformin
<b>A</b>	ACE inhibitors	<b>A</b>	ARBs
<b>D</b>	Diuretics	<b>N</b>	NSAIDs
		<b>S</b>	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)



### Prescribing alert: NICE guidance update

Type 2 diabetes in adults: management (NG28) was updated on 15/2/22. 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. This section of the CESEL T2DM guidance will be updated to align with SEL IMOC guidance as soon as it is available.

## T2DM: Preferred Medication<sup>1,3,16,28</sup>

	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	<ul style="list-style-type: none"> <li>Ensure corrected eGFR &gt;45ml/min, or review dose. Contraindicated if corrected eGFR &lt;30ml/min. Routine renal function at least annually, 6 monthly for those at risk of renal impairment.</li> <li>Consider slow-release preparation if standard preparation causes gastrointestinal side effects.</li> <li>Take with meals to reduce gastrointestinal side effects</li> <li>Remember sick day rules ⇨ p.8</li> <li>Manufacturer advises patients and carers should be informed to seek urgent medical advice if symptoms of lactic acidosis e.g. dyspnoea, cramps, abdominal pain</li> </ul>
	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			
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.	<ul style="list-style-type: none"> <li>Inform patients of risk of adverse events/hypoglycaemia, particularly if renal impairment</li> <li>Advise patients on how to manage hypoglycaemia</li> <li>Use with care in those with mild to moderate renal impairment (eGFR 30-60ml/min), only prescribe under specialist advice in severe impairment (eGFR &lt;30ml/min)</li> <li>Self monitor according to DVLA guidance and consider alternative if Group 2 driver (large lorries and buses)</li> <li>Consider alternative if BMI &gt;35</li> <li>Care with frail elderly, housebound and certain occupations e.g., working heavy machinery</li> </ul>
ACEI	1st line Ramipril	2.5mg OD (1.25mg OD in frail/elderly patients)	2.5mg-10mg OD	<ul style="list-style-type: none"> <li>For people of Black African or African-Caribbean family origin, use ARB instead of ACEI (as increased risk of angioedema with ACEI)</li> <li>Check base line U&amp;Es and renal profile (Na/K/Cr/eGFR). Hyperkalaemia may occur, therefore close monitoring of serum potassium is required</li> </ul>
	2nd line Lisinopril	10mg OD	10-80mg OD (maintenance dose 20mg for hypertension)	<ul style="list-style-type: none"> <li>Re-check renal profile within 2 weeks of initiation or dose increase and then at least annually.</li> <li><b>Titrate ACEI/ARB up at 2-4 weekly intervals to achieve optimal BP control</b></li> <li>Initiation/dose titration: if Cr increases by &gt;20% (or eGFR falls by &gt;15%) stop ACEI and seek specialist advice. ACEI dose should only be increased if serum creatinine increases by &lt;20% (or eGFR falls by &lt;15%) after each dose titration and potassium &lt;5.5mmol</li> </ul>
ARBs	Losartan	50mg OD (25mg OD if >75yrs old)	50-100mg OD	<ul style="list-style-type: none"> <li><b>ACEI/ARB dose should be optimised before the addition of a second agent</b></li> </ul>
	Candesartan	8mg OD	8mg-32mg OD	<ul style="list-style-type: none"> <li>Side effects: symptomatic hypotension can occur on first dosing - suggest take at night. Dry cough with ACEI, consider switch to ARB</li> <li><b>Caution:</b> Do not combine ACEI and ARB to treat hypertension</li> <li>For diabetic nephropathy ARB of choice: losartan and irbesartan</li> </ul>

**Prescribing alert: NICE guidance update**

Type 2 diabetes in adults: management (NG28) was updated on 15/2/22. 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. This section of the CESEL T2DM guidance will be updated to align with SEL IMOC guidance as soon as it is available.

**T2DM: Preferred Medication<sup>1,3,16,28</sup>**

	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	<ul style="list-style-type: none"> <li>Increase after 2-4 weeks to maximum dose of 10mg OD.</li> <li>Caution: Interacts with simvastatin – consider switching to atorvastatin.</li> <li>If amlodipine causes ankle oedema consider using a thiazide-like diuretic instead</li> <li>CI: unstable angina, aortic stenosis, severe hypotension</li> <li>Side effects include flushing and headaches at initiation; swollen ankles especially at higher doses</li> </ul>
Thiazide-like diuretics	Indapamide (IR)	2.5mg OD	2.5mg OD	<ul style="list-style-type: none"> <li>Check baseline renal profile, then after 2 weeks, then at least annually. If K &lt; 3.5mmol/L or eGFR &lt;25ml/min, stop indapamide and seek specialist advice.</li> </ul>
Aldosterone receptor antagonist (K <sup>+</sup> sparing diuretic)	Spironolactone	25mg OD	25mg OD	<ul style="list-style-type: none"> <li>Step 4: Spironolactone is the preferred diuretic at step 4 (NICE), but is an unlicensed indication in resistant hypertension (BNF)</li> <li>Consider only if potassium ≤4.5mmol/L (caution in reduced eGFR &lt;30ml/min, as increased risk of hyperkalaemia). Monitor Na/K/renal function within 1 month and repeat 6 monthly thereafter</li> <li>If K&gt;4.5mmol/L should be stopped.</li> </ul>
α-B	Doxazosin (IR)	1mg OD	2-16mg OD (or BD dosing when >8mg/day)	<ul style="list-style-type: none"> <li>Consider at Step 4 if potassium ≥ 4.5mmol/L. Initial dose of 1mg usually increased after 1-2 weeks to 2mg OD</li> <li>At doses above 8mg/day, consider split dosing from OD to BD to reduce BP variation</li> <li><b>Caution:</b> Initial dose as may cause postural hypotension, avoid in elderly as orthostatic hypotension risk</li> </ul>
β-B	Atenolol	25mg OD	25-50mg OD	<ul style="list-style-type: none"> <li>Consider at Step 4 if potassium ≥ 4.5mmol/L.</li> <li><b>Particular caution in T2DM – symptoms of hypoglycaemia may be masked.</b></li> <li>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.</li> <li>CI: asthma, 2nd/3rd degree AV block, severe PAD</li> <li><b>Caution:</b> beta blockers can cause bradycardia if combined with certain CCBs e.g. Verapamil/Diltiazem</li> </ul>
	Bisoprolol	5-10mg OD	5-20mg OD	
Statin (See page 6)	Atorvastatin (alternative is rosuvastatin)	20mg OD	20-80mg OD	<ul style="list-style-type: none"> <li>Seek specialist advice if eGFR &lt;30ml/min, liver disease, untreated hypothyroidism, heavy drinker</li> <li>CI in pregnancy, breast feeding, avoid or address contraceptive needs women of childbearing age. Advise to stop 3 months before conception.</li> <li>Multiple drug interactions, check BNF for advice, avoid grapefruit juice</li> <li>Advise patient to visit GP if they experience unexplained muscle pains</li> <li>Refer to <a href="#">SEL IMOC Guidelines on Lipid Management</a></li> </ul>

## Educational Resources

**Cambridge Diabetes Education Programme**, comprehensive, competence based learning.

Free for all Southwark clinicians [www.cdep.org.uk](http://www.cdep.org.uk)

REGISTRATION KEY CODE: SOUCCGCDEP

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

**RCGP Diabetes Hub**

**Personalised Care Institute**

**Primary Care Diabetes Society**

**Southwark Healthy Weight training for professionals**

## Patient Resources

**Healthy weight advice and support in Southwark**

**Southwark Sport and Leisure**

**Southwark Wellbeing Hub** Directory for community resources

**Health Lifestyle Hub** – access via NHS Health Checks

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

**The Diabetes UK Lambeth and Southwark Group** support and information for everyone with diabetes and their carers.

**Diabetes UK website**

**Health and Care patient information videos on range of diabetes topics**

## Southwark clinical support

**Community diabetes clinic**- Referral criteria on form (see DXS). Can also provide T2DM drug related advice via email: [gst-TR.southwark-diabetes@nhs.net](mailto:gst-TR.southwark-diabetes@nhs.net)

Phone: 02030498863

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

Non-urgent 'Advice & Guidance'- via 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

**The Quality Improvement Toolkit for Diabetes Care**

### Acknowledgements

CESEL guides are developed by SEL primary care clinicians and are localised to include borough specific pathways and resources. The guides go through a formal approval process including SEL Integrated Medicines Optimisation Committee (IMOC) for medicines content, CESEL Steering Group with representation from SELCCG and PCNs, and borough based Medicines Management Teams (MMT).

CESEL would like to thank all our colleagues who participated and fed-back during the consultation process including colleagues from the Community Diabetes Clinic, IHL, QHS, Southwark Medicines Optimisation Team and Public Health, IMOC and colleagues from King's Health Partners.

## References

1. Type 2 Diabetes in adults: Management. NICE Guideline (NG28) Dec 2015, updated Dec 2020
2. Quality and Outcomes Framework guidance for 2021/22 BMA and NHS
3. SELICS Lipid Management: Medicines Optimisation Pathways September 2021
4. Primary care-led weight management for remission of type 2 diabetes (DiRECT): an open-label, cluster-randomised trial. Lean et al., Lancet 2017.
5. Cost effectiveness analysis of improved blood pressure control in hypertensive patients with type 2 diabetes: UKPDS 40 BMJ 1998
6. Efficacy of cholesterol-lowering therapy in 18,686 people with diabetes in 14 randomised trials of statins: a meta-analysis. Cholesterol Treatment Trials Collaborators, The Lancet 2008.
7. Estimating the impact of better management of glycaemic control in adults with Type 1 and Type 2 diabetes on the number of clinical complications and the associated financial benefit. Baxter et al, Diabetic Medicine 2016.
8. Action on smoking and health (ASH), Fact sheet number 20.
9. The Cost of Diabetes Report. Diabetes UK 2014
10. Diabetes UK website
11. The Global Registry of New-Onset, COVID-19-Related Diabetes e-dendrite.com
12. Consensus Approach to the Diagnosis of Type 2 Diabetes. London Diabetes Clinical Network September 2018
13. Suspected cancer: recognition and referral NICE (NG12) June 2015
14. Obesity: identification, assessment and management. NICE guideline (CG189) Nov 2014
15. Quality and outcomes framework guidance fir 2021/22
16. Hypertension in adults: diagnosis and management. NICE guideline (CG136) Aug 2019
17. South East London Blood Glucose Control Management Pathway for Adults with Type 2 Diabetes Mellitus October 2019
18. Chronic kidney disease in adults: assessment and management. NICE guideline (NG203) August 2021
19. OneLondon Diabetic Kidney Disease Risk Stratification Pathway Winter 2020/21
20. National Diabetes Audit – Care Processes and Treatment Targets
21. Chronic Kidney Disease in adults: assessment and management, NICE Clinical Guideline (CG182) July 2014, updated Jan 2015.
22. Diabetic foot problems: prevention and management NICE guideline (NG19) August 2015, updated January 2016
23. Diabetic patient foot pathway for Southwark and Lambeth August 2016
24. Healthy weight programme, Guy's and St Thomas' NHS Foundation Trust
25. DVLA Assessing fitness to drive: a guide for medical professionals.
26. Trend. Type 2 Diabetes: What to do when you are ill October 2018
27. 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 Updated April 2020
28. British National Formulary, last updated Feb 2021

## Abbreviations

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

**Making the right thing to do  
the easy thing to do.**