London Conference | PCDO Society

Session 3 : Newly Diagnosed with Type 2 Diabetes

Jane Diggle & Waqas Tahir | 2 July 2025

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Disclaimer/disclosure

Jane Diggle
Specialist Diabetes Nurse Practitioner
College Lane Surgery, Ackworth, West Yorkshire

Current Committee Member and Former Co-Vice Chair of Primary Care Diabetes & Obesity Society
Editor-in-Chief of *Diabetes and Primary Care Journal*
Member of the iDEAL *(Insights for Diabetes Excellence, Access and Learning)* Advisory Group.
Tutor for iHEED Post-graduate Diploma in Diabetes (University of Warwick)

Received funding from the following companies for providing educational sessions and documents, and for attending advisory boards:
Abbott, Bayer, AstraZeneca, Boehringer Ingelheim Eli Lilly, Menarini, Novo Nordisk, Roche, Sanofi , Sciarc GmbH, Sherborne Gibbs Limited and Tetris.

Disclaimer/disclosure

Dr. Waqas Tahir
West Yorkshire

Current Committee Member of Primary Care Diabetes & Obesity Society

The Westcliffe Partnership has received funding from: Abbott, AstraZeneca, Bayer, Boehringer-Ingelheim, Bristol Myers Squibb, Dawn, INRStar, Medtronic, Oberoi Consulting, Pfizer, Roche, Sanofi-Aventis, Servier
I have received funding from the following companies for providing educational sessions, speaker fees, advisory and consultancy roles and travel grants to attend conferences:
Abbott, AstraZeneca, Amarin Pharmaceuticals Ltd, Bayer, Boehringer-Ingelheim, Dexcom, Eli Lilly ,European Medtec, Menarini, Merck and MSD, Novo Nordisk, NAPP Pharmaceuticals Ltd, Roche and Sanofi
I have also worked in a non-promotional capacity to support GP / PN education : MIMS, medical updates, DPC, DUK, Primary care health, PCDS and PCDE. Clinical Advisor to Gendius – AI remote management

Meet Graham (Dad)

Age	58 years
History	Recently diagnosed with T2D
PMH	Hypertension since 2021
Blood pressure	138/82 mmHg
Cholesterol	TC = 4.2 mmol/L HDL-C = 1.3mmol/L Non-HDL = 2.9 mmol/l TG 2.1mmol/L (declined offering of statin in past)
HbA1c	64mmol/mol and 66mmol/mol
BMI & Weight & Height	28 kg/m^2 88 kgs 177cm
eGFR & ACR	68 mL/min/1.73m^2 (G2) 3.2 mg/mmol persisting for > 3months (A2)
Current Medication	Ramipril 10mg OD Amlodipine 10mg od
Occupation	Retired Police Officer – Speed Awareness Instructor
Lifestyle	Non-smoker. Married. Enjoys a couple of glasses of wine most evenings

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- Struggles with formal exercise but manages to walk the dog most days.
- Reports good sleep pattern.
- Eats reasonably healthy diet – he thinks!
- Aware he is drinking more than he should
- *"Would like to lose a bit of weight – especially round the belly"*.
- Father had MI at 58 yrs, developed T2D & went onto insulin – had an amputation by the age 70.
- Worried about this recent diagnosis of T2D – doesn't want to *"end up like his Dad"*.

A lot to cover in the initial consultation

1. Explore what he knows about Type 2 diabetes and how he feels about the diagnosis and the impact on him
2. Provide support & education & share reputable resources
3. Offer and support to attend diabetes structured education
4. Compete care processes
5. Convey the seriousness of the diagnosis
6. Agree individualised goals (and targets) – involving him in the process
7. Discuss treatment options

What are your main concerns for Graham?

- **50%** of people with diabetes **die from cardiovascular disease**[2]
- About **40%** of people with T2DM have some form of **chronic**

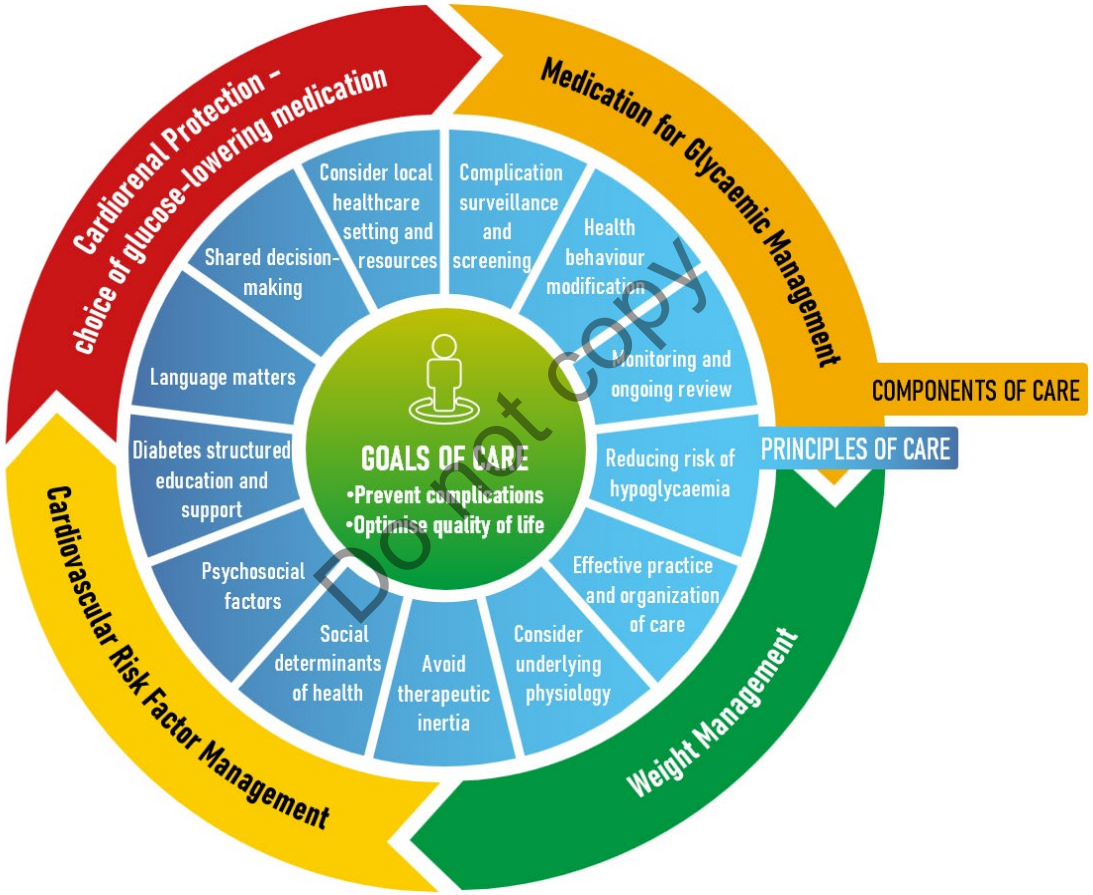
But diabetes management is not just about glucose levels

with

- **16%** of people aged >65 years with diabetes **die of stroke**[6]
- **28%** of people with T2DM have diabetic **retinopathy**[7]
- **CVD** can occur **10-15 years earlier** in those with diabetes[8]

1. International Diabetes Federation. IDF Diabetes Atlas. 9th ed. 2019. [Accessed September 2020]. www.idf.org/diabetesatlas. 2. World Health Organization. Diabetes: Data and statistics. [Accessed September 2020]. www.euro.who.int/en/health-topics/noncommunicable-diseases/diabetes/data-and-statistics. 3. Wu B, et al. BMJ Open Diabetes Res Care 2016;4(1):e000154. 4. Centers for Disease Control and Prevention. National diabetes statistics report 2020. [Accessed September 2020]. www.cdc.gov/diabetes/pdfs/data/statistics/national-diabetes-statistics-report.pdf. 5. Diabetes UK. 26,378 diabetes-related lower limb amputations in the last three years. December 2018 [Accessed September 2020]. www.diabetes.org.uk/about_us/news/lower-limb-amputations. 6. American Heart Association. Statistical Fact Sheet, 2014. [Accessed September 2020]. 7. Mathur R, et al. BMJ Open 2017;7:e014444. 8. Booth et al Lancet 2006;368:29-36

Multifactorial behaviour and pharmacological treatment to prevent or delay complications and maintain quality of life



Management of Hyperglycaemia in Type 2 Diabetes: Consensus Report
by the American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD)

Davies MJ, et al. Diabetes Care. 2022;45(11): 2753–2786

Assessing Risk

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Is Graham at high CV risk?

Welcome to the QRISK®3-2018 risk calculator https://qrisk.org

This calculator is only valid if you do not already have a diagnosis of coronary heart disease (including angina or heart attack) or stroke/transient ischaemic attack, and not on statins.

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About you

Age (25-84): 58
Sex: Male / Female
Ethnicity: White or not stated
UK postcode: leave blank if unknown
Postcode: WF7 7HZ

Clinical information

Smoking status: non-smoker
Diabetes status: type 2
Angina or heart attack in a 1st degree relative < 60? ☑
Chronic kidney disease (stage 3, 4 or 5)? ☐
Atrial fibrillation? ☐
On blood pressure treatment? ☑
Do you have migraines? ☐
Rheumatoid arthritis? ☐
Systemic lupus erythematosus (SLE)? ☐
Severe mental illness? (this includes schizophrenia, bipolar disorder and moderate/severe depression) ☐
On atypical antipsychotic medication? ☐
Are you on regular steroid tablets? ☐
A diagnosis of or treatment for erectile disfunction? ☐

Leave blank if unknown

Cholesterol/HDL ratio: 3.2
Systolic blood pressure (mmHg): 138
Standard deviation of at least two most recent systolic blood pressure readings (mmHg):

Body mass index

Height (cm): 177
Weight (kg): 88

Calculate risk

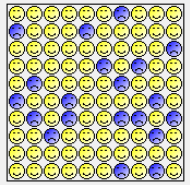
Your results

Your risk of having a heart attack or stroke within the next 10 years is:

20.3%

Note. The score is based on a cohort of patients without pre-existing cardiovascular disease and not on statins at the start. The cohort includes patients who subsequently started statins (or other lifestyle modifications). Consequently the actual risk of a patient may be more than this score implies if they do not take preventative actions. If they do take preventative actions the risk would be reduced.

In other words, in a crowd of 100 people with the same risk factors as you, 20 are likely to have a heart attack or stroke within the next 10 years.



Risk of a heart attack or stroke

Your score has been calculated using estimated data, as some information was left blank.

Your body mass index was calculated as 28.09 kg/m^2.

How does your 10-year score compare?

Your score	
Your 10-year QRISK®3 score	20.3%
The score of a healthy person with the same age, sex, and ethnicity*	7.3%
Relative risk**	2.8
Your QRISK®3 Healthy Heart Age***	74

* This is the score of a healthy person of your age, sex and ethnic group, i.e. with no adverse clinical indicators and a cholesterol ratio of 4.0, a stable systolic blood pressure of 125, and BMI of 25.

** Your relative risk is your risk divided by the healthy person's risk.

*** Your QRISK®3 Healthy Heart Age is the age at which a healthy person of your sex and ethnicity has your 10-year QRISK®3 score.

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Leave blank if unknown

Cholesterol/HDL ratio: 3.2
Systolic blood pressure (mmHg): 138
Standard deviation of at least two most recent systolic blood pressure readings (mmHg):

Body mass index

Height (cm): 177
Weight (kg): 88

Calculate risk

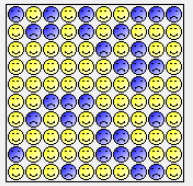
Your results

Your risk of having a heart attack or stroke within the next 10 years is:

32.1%

Note. The score is based on a cohort of patients without pre-existing cardiovascular disease and not on statins at the start. The cohort includes patients who subsequently started statins (or other lifestyle modifications). Consequently the actual risk of a patient may be more than this score implies if they do not take preventative actions. If they do take preventative actions the risk would be reduced.

In other words, in a crowd of 100 people with the same risk factors as you, 32 are likely to have a heart attack or stroke within the next 10 years.



Risk of a heart attack or stroke

Your score has been calculated using estimated data, as some information was left blank.

Your body mass index was calculated as 28.09 kg/m^2.

How does your 10-year score compare?

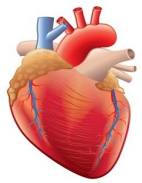
Your score	
Your 10-year QRISK®3 score	32.1%
The score of a healthy person with the same age, sex, and ethnicity*	7.3%
Relative risk**	4.4
Your QRISK®3 Healthy Heart Age***	81

* This is the score of a healthy person of your age, sex and ethnic group, i.e. with no adverse clinical indicators and a cholesterol ratio of 4.0, a stable systolic blood pressure of 125, and BMI of 25.

** Your relative risk is your risk divided by the healthy person's risk.

*** Your QRISK®3 Healthy Heart Age is the age at which a healthy person of your sex and ethnicity has your 10-year QRISK®3 score.

QRISK3 cardiovascular risk calculator: https://qrisk.org/three



Graham 20% chance of MI/Stroke in next 10 years, increasing to 32% if his kidney function declines and eGFR < 60 mL/min/1.73m^2

Does Graham have CKD?

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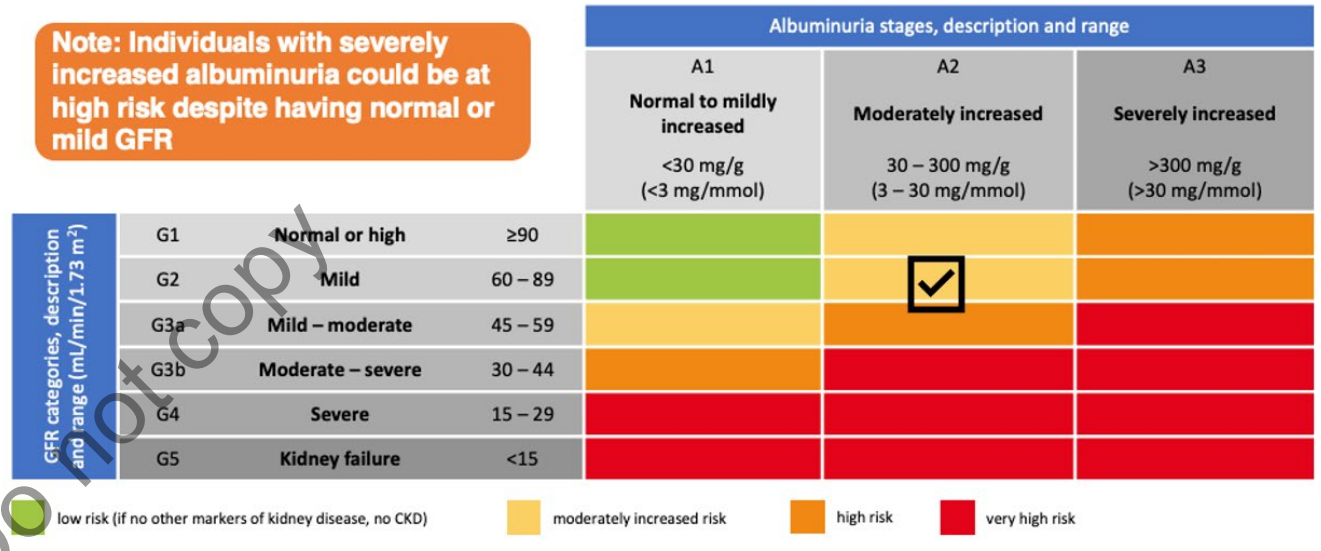

G2 A2

Improvement in renal and CV morbidity and mortality is an integral part of T2DM[1]

Even mild CKD increases the risk of serious health problems[1]

People with T2DM and CKD are at high risk for:[2]

- **Losing kidney function**
- **Major adverse CV events**

Diabetic kidney disease (DKD) is an **independent powerful risk factor** for CVD[3]

Many people with diabetes and renal impairment **die from a CV event** before progressing to end-stage kidney disease (ESKD)[3]

In people with Stage 3 CKD* the risk of death is over **10x higher** than the risk of progression to ESKD[4]

In these patients the main cause of death is likely to be a **CV event**[5]

*Stage 3 CKD defined here as eGFR ≤60 mL/min/1.73 m^2. CKD: chronic kidney disease; CV: cardiovascular; CVD: cardiovascular disease; DKD: diabetic kidney disease.

1. NHS. Chronic Kidney Disease. [Accessed September 2020]. www.nhs.uk/conditions/kidney-disease 2. The National Kidney Foundation – Kidney Disease Outcomes Quality Initiative (KDOQI) Clinical practice guidelines and clinical practice recommendations for diabetes and chronic kidney disease. 2007. [Accessed September 2020]. http://kidneyfoundation.cachefly.net/professionals/KDOQI/guideline_diabetes/background.htm#fig4 3. Karalliedde J & Viberti GC. Diabetic Nephropathy. In: Wass JAH & Stewart P, editors. Oxford Textbook of Endocrinology and Diabetes 2nd Edition. Oxford: Oxford University Press; 2011. p. 1935-45. 4. Pálsson R & Patel UD. Adv Chronic Kidney Dis. 2014;21:273-80. 5. Keith DS, et al. Arch Intern Med 2004;164:659-63.

What are the priorities for Graham?

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Cardiovascular (CV) Risk Management

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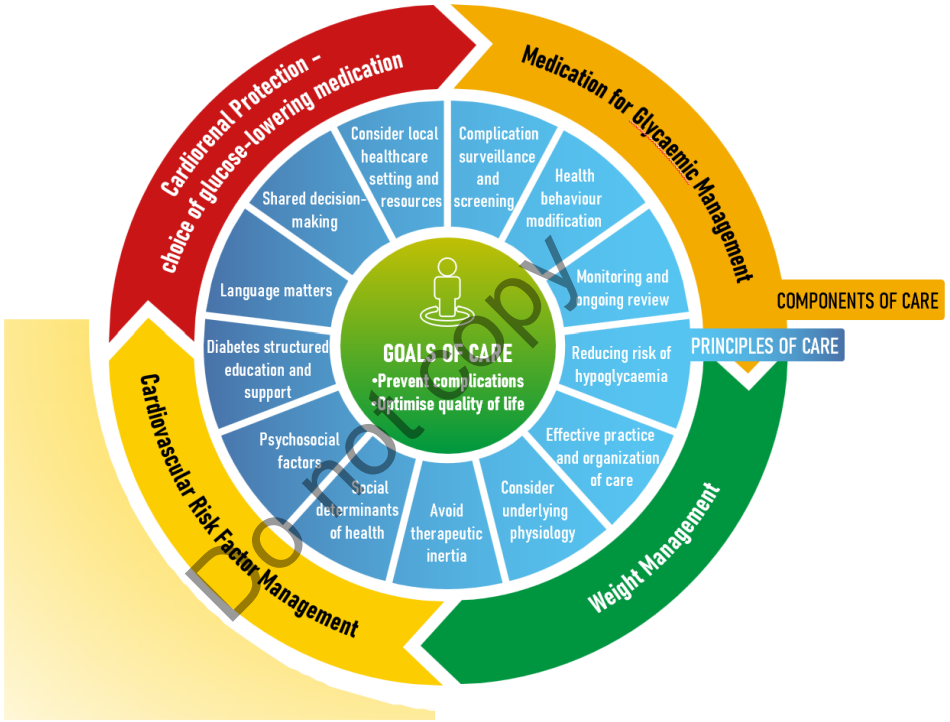

Ensure strategies are in place to detect and optimise management of CV risk factors[3] including:

- CV risk factor screening and surveillance
- BP lowering
- Lipid lowering
- Antithrombotic agents
- Smoking cessation

Adapted from 1. Davies MJ, et al. Diabetes Care. 2022;45(11): 2753–2786

Blood Pressure Lowering

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C	
H	
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NICE NG136[1] and NG203[2] BP targets vary depending on age:

- **Age <80 years <140/90 mmHg**
- **≥80 years <150/90 mmHg**

[Targets are the same for people with and without cardiovascular disease]

There is insufficient evidence to support lower blood pressure targets for people with diabetes, other than in those with coexisting CKD (but only if ACR >70).

BPROAD study [4] demonstrated that reducing systolic blood pressure in people with T2D at CV risk to **<120 mmHg versus <140 mmHg** resulted in a reduction in the composite of first occurrence of a MACE or treatment or hospitalisation for heart failure

T1DM + ACR ≥70 mg/mmol	<130/80 mmHg	<125/75 mmHg
CKD + ACR ≥70 mg/mmol		
Age ≥80 years		
With hypertension (with or without T2DM)	<150/90 mmHg	<145/85 mmHg
CKD + ACR <70 mg/mmol	<140/90 mmHg	<135/85 mmHg
CKD + ACR ≥70 mg/mmol	<130/80 mmHg	<125/75 mmHg

However, KDIGO recommend that adults with high BP and CKD should be treated to a target SBP of <120 mmHg[3]

1.NICE (2023) Hypertension in adults: diagnosis and management NG136]. Available at: www.nice.org.uk /guidance/ng136 2.NICE (2021) Chronic kidney disease: assessment and management [NG203]. Available at: www.nice.org.uk/guidance/ng203 3. KDIGO Blood Pressure Work Group (2021) KDIGO 2021 clinical practice guideline for the management of blood pressure in chronic kidney disease. *Kidney Int **99**(Suppl 3): S1–8 4, Bi Y, Li M, Liu Y et al; BPROAD Research Group (2025) Intensive blood-pressure control in patients with type 2 diabetes. N Engl J Med 392: 1155–67]*

Lipid Lowering

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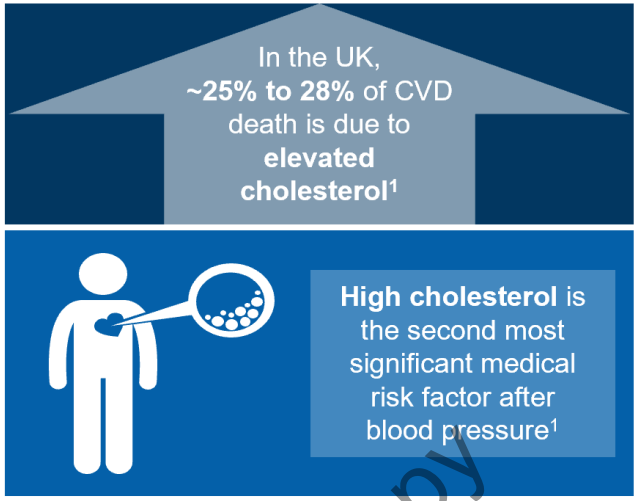

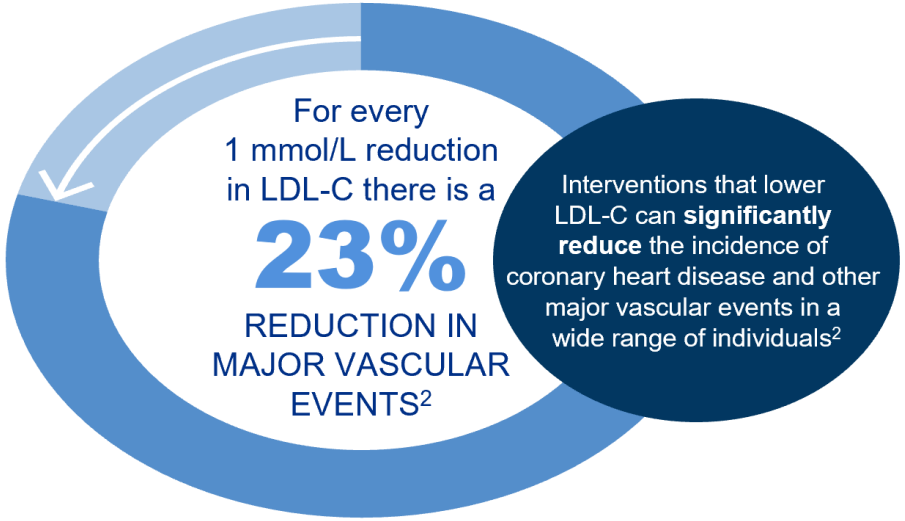

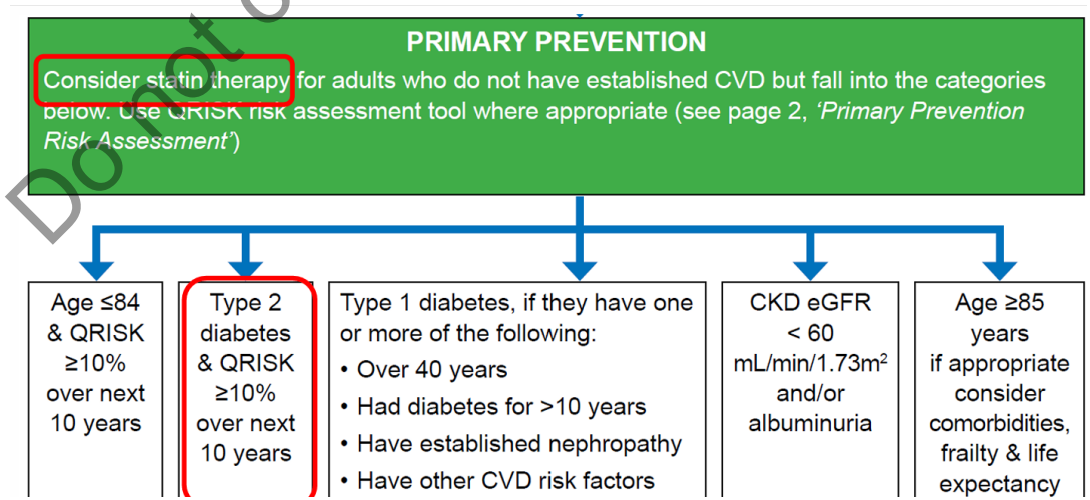

CVD, cardiovascular disease; LDL-C low-density lipoprotein cholesterol.

1. Wilkins E. et al. European Cardiovascular Disease Statistics 2017. European Heart Network, Brussels.
2. Silverman MG et al. JAMA 2016;316(12):1289-97.

NHS (2021) Summary of National Guidance for Lipid Management for Primary and Secondary Prevention of cardiovascular disease. Available at: www.england.nhs.uk/aac/publication/summary-of-national-guidance-for-lipid-management

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PRIMARY PREVENTION

If lifestyle modification is ineffective or inappropriate offer statin treatment.

Atorvastatin 20mg daily

- Measure full lipid profile again after 3 months (non-fasting).
- High intensity statin treatment should achieve reduction of non-HDL-C > 40% from baseline. If not achieved after 3 months;
  - discuss treatment adherence, timing of dose, diet and lifestyle
  - If at higher risk (based on comorbidities, risk score or clinical judgement – see page 2 *'Additional Risk Factors'*) consider increasing the dose every 2-3 months up to a maximum dose of atorvastatin 80mg daily.
  - For how to increase in people with CKD see *'Special Patient Populations'* (page 2).

- If patients on a high-intensity statin have side effects, offer a lower dose or an alternative statin (see page 2 *'Extent of lipid lowering with available therapies'*)
- If maximum tolerated dose of statin does not achieve non-HDL-C reduction > 40% of baseline value after 3 months consider adding Ezetimibe 10mg daily (NICE TA385)
- If statin treatment is contraindicated or not tolerated;
  - See AAC Statin Intolerance Algorithm for advice regarding adverse effects (click here)
  - Ezetimibe 10mg monotherapy may be considered. Assess response after 3 months.
  - Ezetimibe 10mg/bempedoic acid 180 mg combination may be considered when ezetimibe alone does not control non-HDL-C/LDL-C well enough (NICE TA694).

If non-HDL-C reduction remains < 40% of baseline despite maximal tolerated lipid lowering therapy (including people with intolerances and contraindications) consider referral to specialist lipid management clinic according to local arrangements

NHS (2021) Summary of National Guidance for Lipid Management for Primary and Secondary Prevention of cardiovascular disease. Available at: www.england.nhs.uk/aac/publication/summary-of-national-guidance-for-lipid-management

What about other components of care?

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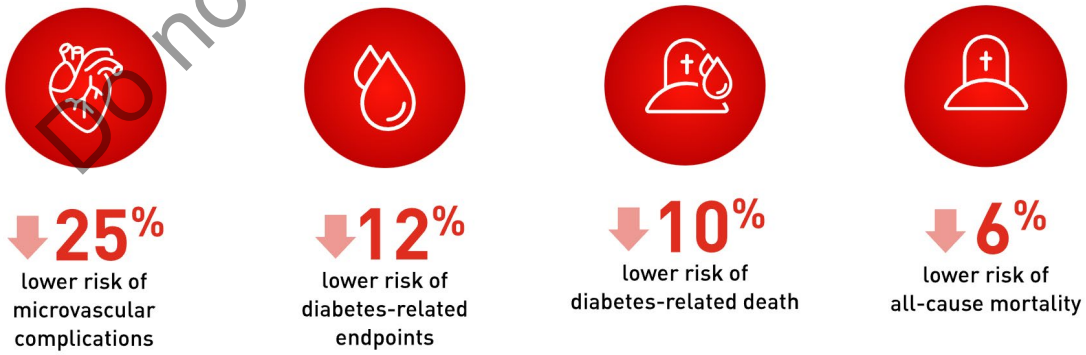
- UKPDS[1,2] – landmark RCT of glycaemic therapies in 5,102 participants with newly diagnosed T2D showed there is a direct relationship between the risk of diabetes complications and glycaemia over time.
- The lower the glycaemia the lower the risk of complications (with greatest effect on microvascular complications).
- Maintaining a lower median HbA1c over 10 years of 7.0% (53mmol/mol) compared with 7.9% (63mmol/mol) led to:



1.UK Prospective Diabetes Study (UKPDS) Group. Intensive blood-glucose control with sulphonylureas or insulin compared with conventional treatment and risk of complications in patients with type 2 diabetes (UKPDS 33). *Lancet.* 1998;352:837-853. doi:10.1016/S0140-6736(98)07019-6.
2.Holman RR, Paul SK, Bethel MA, Matthews DR, Neil HA. 10-year follow-up of intensive glucose control in type 2 diabetes. *N Engl J Med.* 2008;359(15):1577-1589. doi:10.1056/NEJMoa0806470.

What about other components of care?

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History	Recently diagnosed with T2D
PMH	Hypertension since 2021
Blood pressure	138/82 mmHg
Cholesterol	TC = 4.2 mmol/L HDL-C = 1.3mmol/L Non-HDL = 2.9 mmol/l TG 2.1mmol/L (declined offering of statin in past)
HbA1c	64mmol/mol and 66mmol/mol
BMI & Weight & Height	28 kg/m^2 88 kgs 177cm
eGFR & ACR	68 mL/min/1.73m^2 (G2) 3.2 mg/mmol persisting for > 3months (A2)
Current Medication	Ramipril 10mg OD Amlodipine 10mg od
Occupation	Retired Police Officer – Speed Awareness Instructor
Lifestyle	Non-smoker. Married. Enjoys a couple of glasses of wine most evenings

What is an appropriate HbA1c Target for Graham?

Among patients with newly diagnosed diabetes and 10 years of survival, **HbA1c levels ≥48mmol/mol** (≥6.5%) the first year after diagnosis were associated with **worse microvascular and macrovascular outcomes and increased mortality**[1,2]

1. Davies MJ, et al. Diabetes Care. 2022;45(11): 2753–2786. 2. Davies MJ, et al. Diabetologia. 2022;65(12): 1925–1966.

What approaches would you consider?

Age	58 years
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PMH	Hypertension since 2021
Blood pressure	138/82 mmHg
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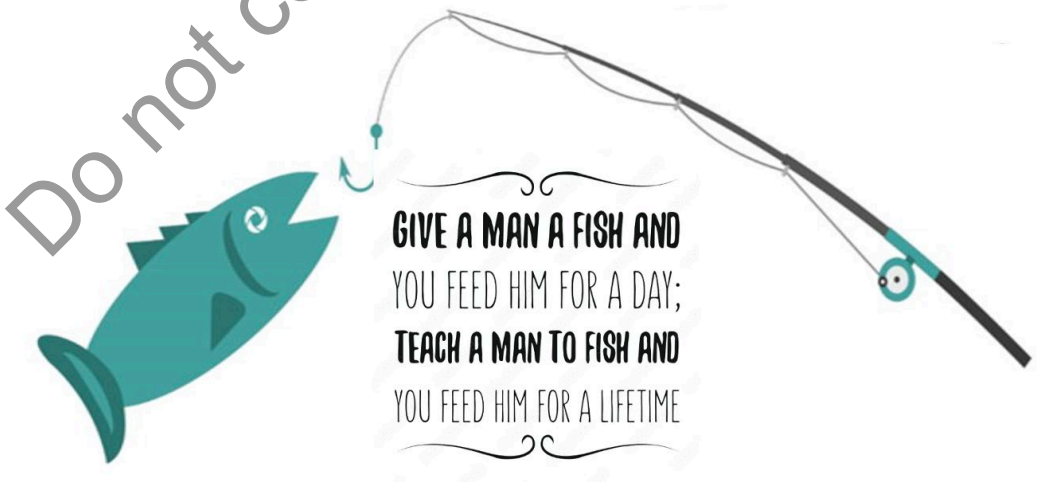
- ❑ Diabetes UK learning Zone (https://learningzone.diabetes.org.uk)
- ❑ Structured Education (online self-management e.g. https://www.healthyliving.nhs.uk) or local courses
- ❑ Health & Wellbeing Coaching
- ❑ Digital Weight Management (*BMI >30)
- ❑ Pathway to Type 2 Diabetes Remission



2 v 8,757

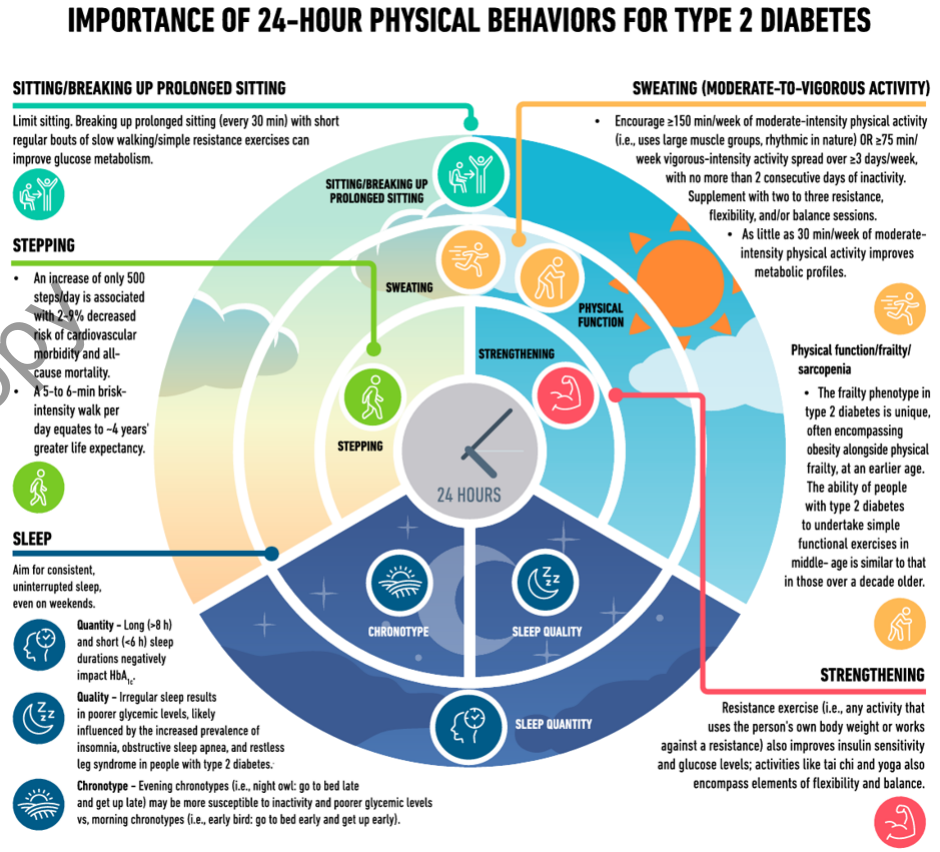
What should we recommend to people with diabetes about lifestyle?

Weight loss of 5–15% as an important goal

- 5–10% provides metabolic improvement
- 10–15% has disease-modifying effect and can lead to T2D remission

In the Look AHEAD study intensive lifestyle intervention improved diabetes control and complications as well as depression, physical function and health-related quality of life.

ADA/EASD Consensus emphasises the importance of the 5 S's: **sleep**, **sweating** (aerobic exercise), **stepping**, **strengthening** (resistance exercise), **sitting**/breaking up prolonged sitting.



Brown P (2022) So what should we recommend to people with diabetes about lifestyle? Updated ADA/EASD advice. Diabetes & Primary Care 24: 157
https://diabetesonthenet.com/tag/lifestyle-factsheets/

1. Wing RR; Look AHEAD research group (2021) Obesity (Silver Spring) 29: 1246–58. 2. Davies MJ, et al. Diabetes Care. 2022;45(11): 2753–2786

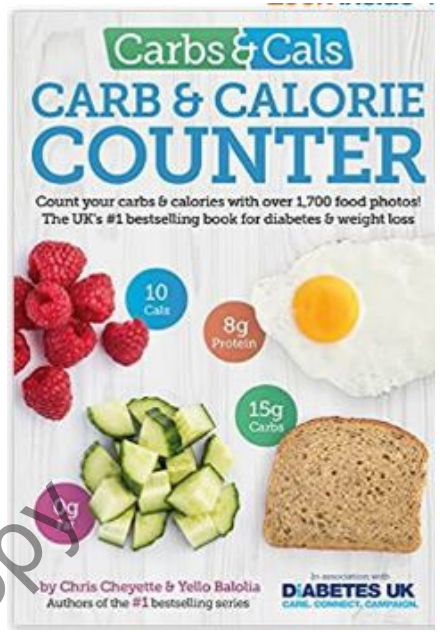
Diet and Nutrition

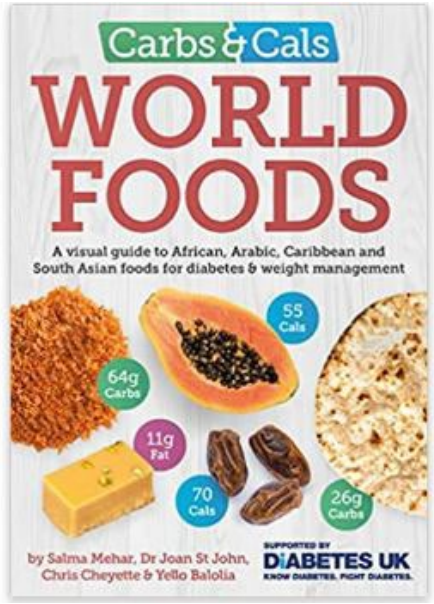
- No single diet or dietary approach is superior to another
- No single ratio of carbohydrates, proteins and fat is optimal for everyone with T2D
- Aim for a net energy deficit that can be sustained for weight loss
- Network meta-analysis comparing nine dietary approaches demonstrated HbA1c reductions of 5.1–9.0 mmol/mol with all approaches compared to control diets[1]

- Greater glycaemic benefits have been shown with Mediterranean and low-carbohydrate diet (<26% energy from carbs), but low-carb benefits only demonstrated up to 6 months[2]
- Systematic review of trials >6 months have shown compared to a low-fat diet, a Mediterranean diet showed greater reductions in weight and HbA1c, delayed requirements for diabetes medication and provided benefits for cardiovascular health. Similar benefits seen with vegan and vegetarian diets[3]
- 12-month study of intermittent fasting (5:2 diet) and continuous energy restriction (1200–1500 kcal diet) demonstrated similar glycaemic effects, and at 24 months both groups achieved 3.9 kg weight loss[4]

1. Schwingshackl L et al (2018) Eur J Epidemiol 33: 157–70 2. Snorgaard O et al (2017) BMJ Open Diabetes Res Care 5: e000354 3. Martínez-González MA et al (2019) Circ Res 124: 779–98 4. Carter S et al (2019) Diabetes Res Clin Pract 151: 11–9

www.carbsandcals.com





It is important to emphasise that while not advocating low-carb diets for people with diabetes over other approaches Diabetes UK do recommend that people with diabetes:

- ✓ **Try to identify and quantify dietary carbohydrate intake, aim for foods with a low glycaemic index (GI) and consider reducing the total amount of carbohydrates.**

Food Item	Glycaemic index	Serve size g	How does each food affect blood glucose compared with one 4g teaspoon of table sugar?
Basmati rice	69	150	10.1
Potato, white, boiled	96	150	9.1
French Fries baked	64	150	7.5
Spaghetti White boiled	39	180	6.6
Sweet corn boiled	60	80	4.0
Frozen peas, boiled	51	80	1.3
Banana	62	120	5.7
Apple	39	120	2.3
Wholemeal Small slice	74	30	3.0
Broccoli	15	80	0.2
Eggs	0	60	0

Other foods in the very low glycaemic range would be chicken, oily fish, almonds, mushrooms, cheese

The full guideline document is available at www.diabetes.org.uk/nutrition-guidelines.

www.phcuk.org

The scale of individual behaviour change required to achieve a significant health benefit can be overwhelming

According to a study using data from the UK Biobank published in BMC Medicine, combining small changes to **Sleep duration, Physical Activity and Nutrition** (SPAN) is associated with reductions in all-cause mortality and is likely to be more achievable and sustainable than larger changes in a single behaviour to achieve the same mortality reduction.

- 5.5 hours of sleep per night
- 7.3 minutes of moderate-to-vigorous physical activity/day
- Diet Quality Score (DQS) of 36.9 out of 100

- **↑ sleep by 15 minutes per day**
- **↑ activity by 1.6 minutes per day**
- **Improve DQS by 5 points (e.g. by eating an additional one-third of a cup of cooked vegetables per day or adding 1.5 pieces of fruit per day)**

Achieved a significant **10% reduction in all-cause mortality**

Optimal SPAN is:

- 7.2 to 8 hours of sleep per night
- 42-103 minutes physical activity
- DQS >50 points

Associated with a 64% reduction in all-cause mortality

Brown P (2025) Diabetes Distilled: SPAN – Small changes to improve lifespan. Diabetes & Primary Care 27: [Early view publication]

DiRECT

Diabetes Remission Clinical Trial

- Structured primary care-led intensive weight management programme
- Total Diet Replacement (825-853 kcal/day for 3-5 months followed by stepped food reintroduction
- Structured support for long-term weight loss maintenance

46% in remission one year later

36% at two years (although of the 24% of participants maintaining at least 10kg weight loss, 64% were still in remission).

95 participants continued to receive low-intensity support in primary care to help maintain weight loss for a further 3 years. Of these, **48 were in remission at the start of the extension study. 11 (23%) were still in remission at 5 years, achieving an average weight loss of 8.9 kg.**

Has potential but maintaining long-term weight loss a challenge

Lean ME, Leslie W, Barnes AC, et al. Durability of a primary care led weight management intervention for remission of type 2 diabetes: 2-year results of the DiRECT open-label, cluster randomised trial. Lancet Diabetes Endocrinol 2019; 7: 344–55.

Even short-term remission confers benefit

Analysis of 60,287 people with T2D from 150 GP practices in Southern England, followed up after 7 years and found that those who achieved remission, even for a short time.

Compared with people who had consistently high glucose levels, those who achieved remission, **even if they later relapsed** were:

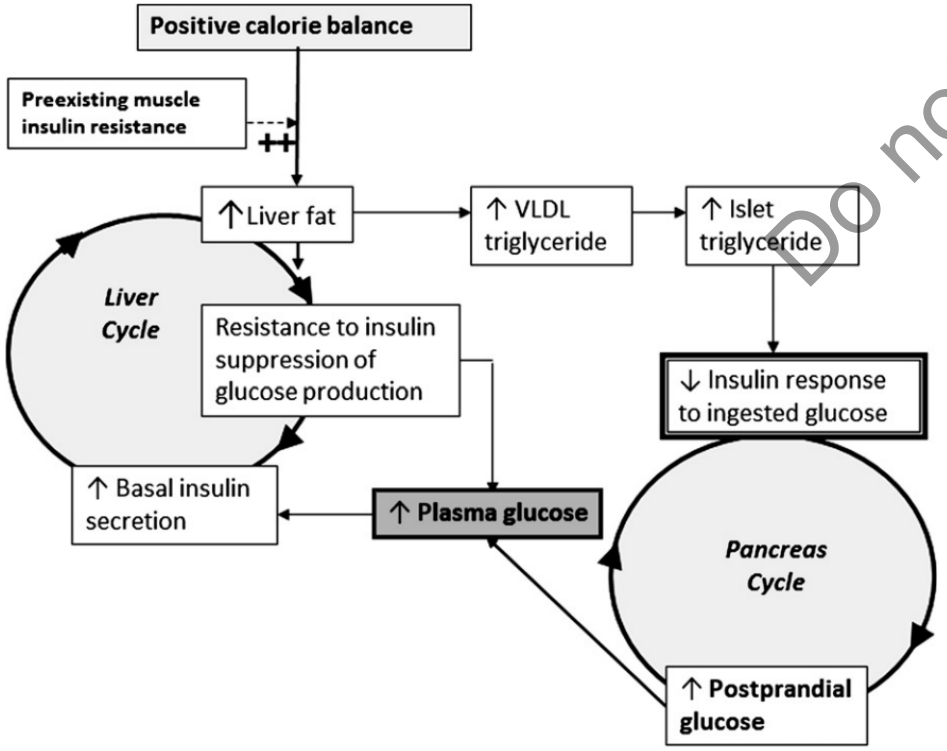
- Less likely to have a CV event (76% less likely without relapse; 71% with relapse)
- Less likely to have large blood vessel complication (85% less likely without relapse; 70% with relapse)
- Less likely to have small blood vessel complication (63% less likely without relapse; 56% with relapse)

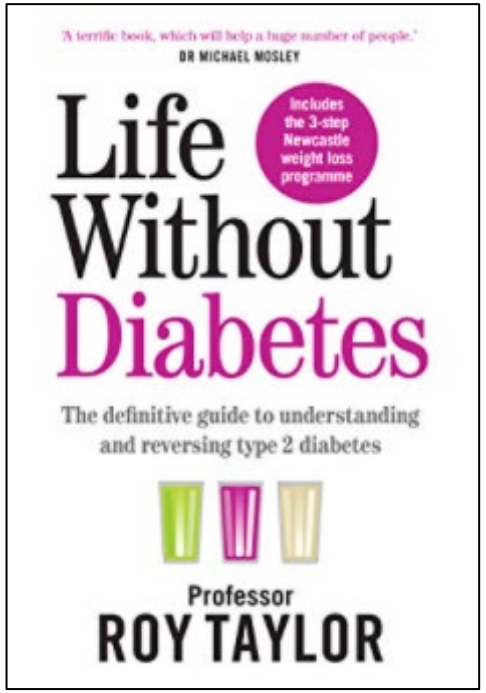
Dambha-Miller H, Hounkpatin HO, Stuart B, Farmer A, Griffin S (2023) Type 2 diabetes remission trajectories and variation in risk of diabetes complications: A population-based cohort study. PLoS ONE 18(8): e0290791. https://doi.org/ 10.1371/journal.pone.0290791

Consider referral to the NHS Type 2 Diabetes Pathway to Remission Programme

Important message to convey: Type 2 diabetes is not caused by 'obesity'

- Everyone has a **Personal Fat Threshold** above which they might develop Type 2 diabetes.
- This is determined initially by their genes - how much fat can be stored safely (under the skin)
- If exceeded **a person may or may not,** then be susceptible to the bad effects of excess fat inside the ß-cells.





Back to Graham.....

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After discussion Graham did not feel able to commit to the Pathway to Remission Programme but decided initially, he wished to tackle his lifestyle.
Follow up to review progress was agreed after 3-months

✓ HbA1c has fallen
✓ Managed to lose a few kgs

What next?

Congratulate him and .....

1) Just carry on with lifestyle changes
2) 1 and add metformin
3) 1 and add metformin + SGLT2i
4) 1 and add metformin + GLP-1/GIP RA
5) Something else

Medication for Glycaemic Management

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Cholester	
HbA1c	
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Glycemic Management: Choose approaches that provide the efficacy to achieve goals:

But diabetes management is not just about glucose levels

Davies MJ, et al. (2022) Management of Hyperglycaemia in Type 2 Diabetes, 2022 A Consensus Report by the American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD)Diabetes Care. 2022;45(11): 2753–2786

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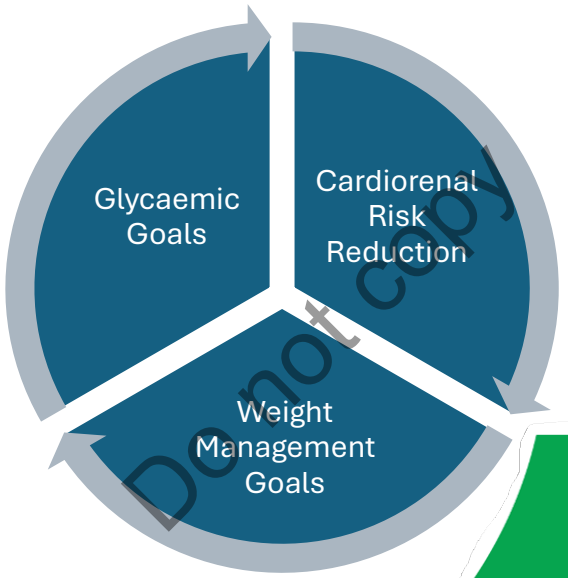

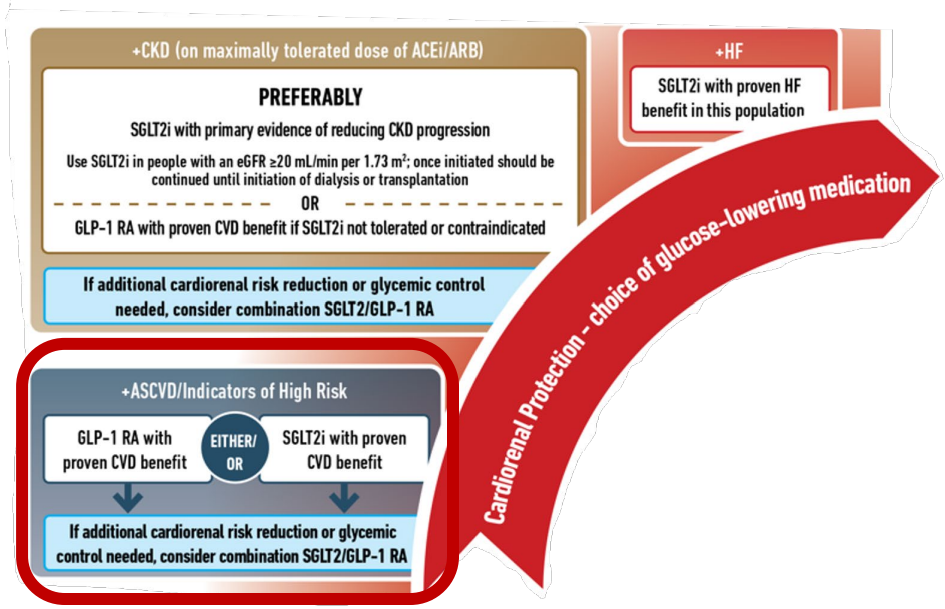

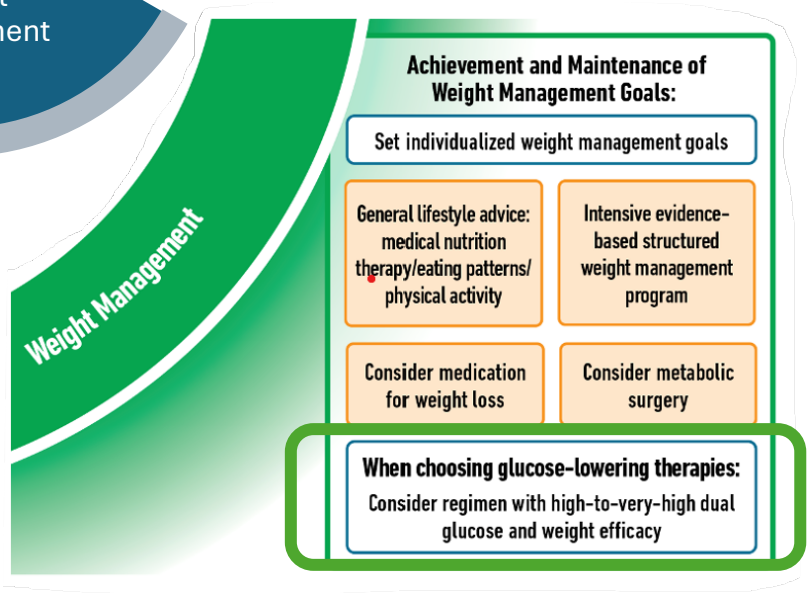

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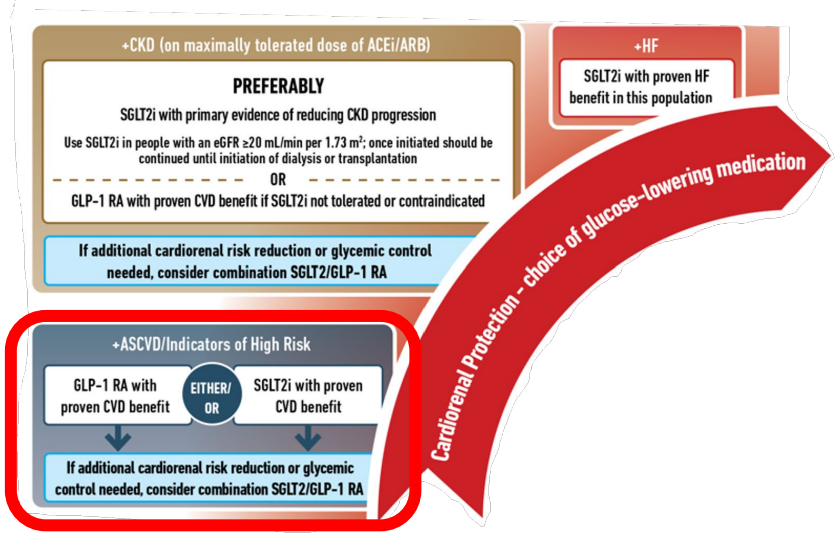
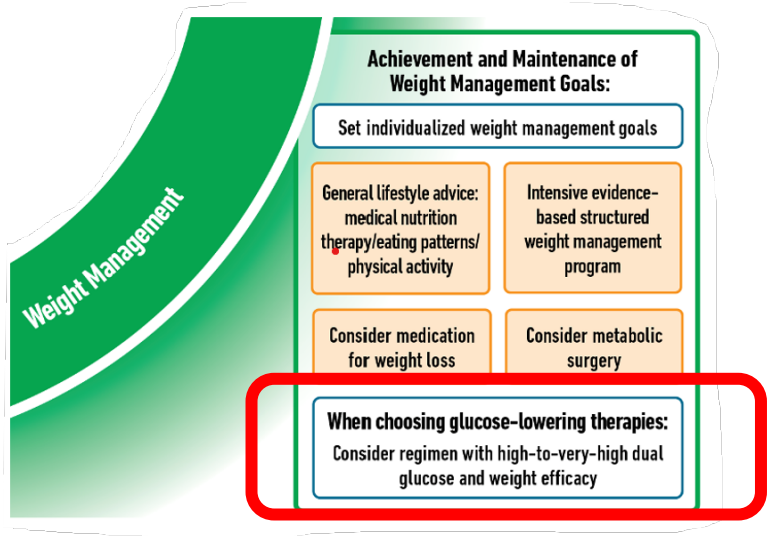
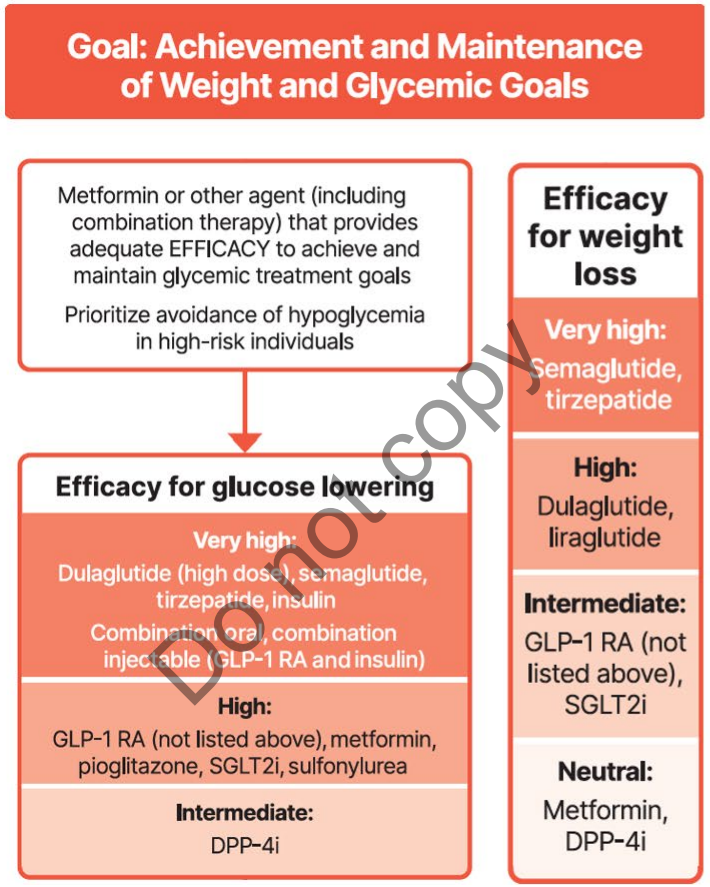
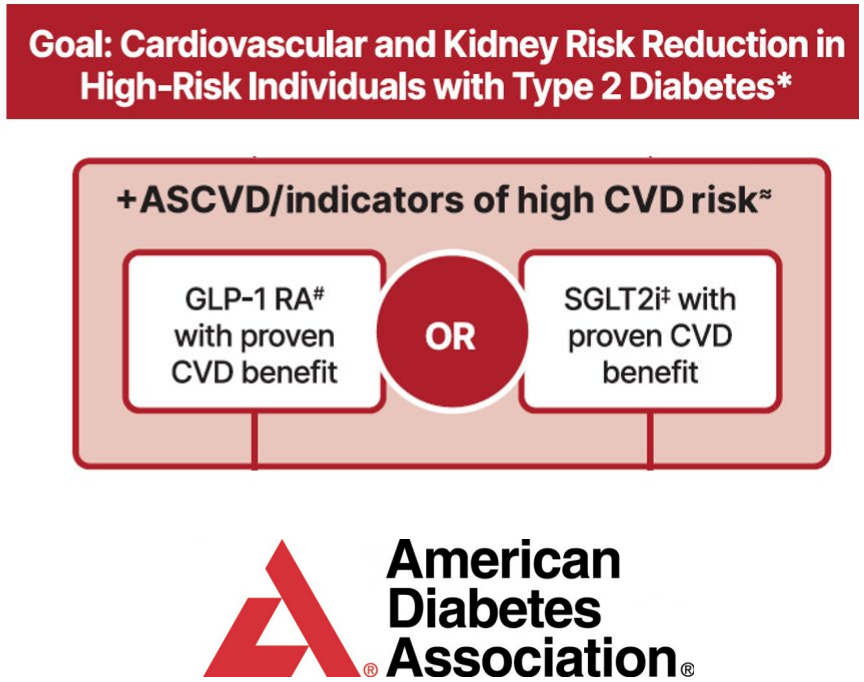
International Guidelines support early use of SGLT2i &/or GLP1/GIP-RA









American Diabetes Association®

Davies MJ, et al. (2022) Management of Hyperglycaemia in Type 2 Diabetes, 2022 A Consensus Report by the American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD)Diabetes Care. 2022;45(11): 2753–2786

https://diabetes.org/newsroom/press-releases/american-diabetes-association-releases-standards-care-diabetes-2025

How to choose medicines for further treatment

NICE National Institute for Health and Care Excellence

Rescue therapy

For symptomatic hyperglycaemia, consider insulin or a sulfonylurea and review when blood glucose control has been achieved.

Treatment options if further interventions are needed

At any point

HBA1c not controlled below individually agreed threshold

Switching or adding treatments

Consider:

DPP-4 inhibitor or Pioglitazone or Sulfonylurea

SGLT2 inhibitors may also be an option in dual therapy:

- TA 315 Canagliflozin
- TA 288 Dapagliflozin
- TA 336 Empagliflozin
- TA 572 Ertugliflozin

Or in triple therapy:

- TA 315 Canagliflozin
- TA 418 Dapagliflozin
- TA 336 Empagliflozin
- TA 583 Ertugliflozin

At any point

Cardiovascular risk or status change

If the person has or develops chronic heart failure or established atherosclerotic CVD

Switching or adding treatments

Offer

An SGLT2 inhibitor (if not already prescribed)

If the person has or develops a high risk of CVD (QRISK2 of 10% or higher, or elevated lifetime risk)

Switching or adding treatments

Consider

An SGLT2 inhibitor (if not already prescribed)

Established atherosclerotic CVD includes coronary heart disease, acute coronary syndrome, previous myocardial infarction, stable angina, prior coronary or other revascularisation, cerebrovascular disease (ischaemic stroke and transient ischaemic attack) and peripheral arterial disease.

At each point follow the prescribing guidance.
Switch or add treatments from different drug classes up to triple therapy (dual therapy if metformin is contraindicated).
In February 2022, using ertugliflozin to reduce cardiovascular risk when blood glucose is well controlled was off label. See NICE's information on prescribing medicines.

Insulin therapy

When dual therapy has not continued to control HbA1c to below the person's individually agreed threshold, also consider insulin-based therapy (with or without other drugs).

- TA 288 Dapagliflozin
- TA 336 Empagliflozin
- TA 315 Canagliflozin

GLP-1 mimetic treatments

If triple therapy with metformin and 2 other oral drugs is not effective, not tolerated or contraindicated, consider triple therapy by switching one drug for a GLP-1 mimetic for adults with type 2 diabetes who:

- have a body mass index (BMI) of 35 kg/m^2 or higher (adjust accordingly for people from Black, Asian and other minority ethnic groups) and specific psychological or other medical problems associated with obesity **or**
- have a BMI lower than 35 kg/m^2 **and**:
  - for whom insulin therapy would have significant occupational implications **or**
  - weight loss would benefit other significant obesity related comorbidities.

Published date: February 2022. Last updated: August 2022. This is a summary of the advice in the NICE guideline on type 2 diabetes in adults: management.

https://www.nice.org.uk/guidance/ng28

NICE NG28

Coming Soon!

A plan is agreed……

Age	58 years
History	Recently diagnosed with T2D
PMH	Hypertension since 2021
Blood pressure	138/82 mmHg
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Current Medication	Ramipril 10mg OD Amlodipine 10mg od
Occupation	Retired Police Officer – Speed Awareness Instructor
Lifestyle	Non-smoker. Married. Enjoys a couple of glasses of wine post evenings

- ✓ Graham will continue to make lifestyle changes
- ✓ Fully counselled to start metformin (initially 500mg once daily titrated up to maximum tolerated dose of 1g BD within 1 month)
- ✓ Addition of SGLT2i as soon as titrated to the maximum tolerated dose of metformin
- ✓ Plan to review after 3 months

PCDO Society

Thank you

pcdosociety.org