A guide to personalising Glucose management in older type 2 diabetic patients living with frailty

Nottinghamshire Area Prescribing Committee

Frailty categories for this Guidance (formal and pragmatic)

Very Mild/Mild Frailty - Clinical Frailty Score (CFS) 4 or 5: Independent for most activities of daily living ADLs

Moderate Frailty - CFS 6: Needs help with some ADLs/personal care

Severe Frailty/approaching end of life - CFS ≥7: Dependent for ADLs/personal care and/or suspected to be in the last 6 months of life

Suggested HbA1c targets:

- **Very Mild/Mild frailty**
  - **53-58 mmol/mol**
  - Individualise as needed based upon the patient.
  - 48–58mmol/mol may be appropriate for some patients, especially if they experience no medication side effects.
  - 53-58 mmol/mol offers better hypoglycaemia and falls protection.

- **Moderate frailty**
  - **58–64 mmol/mol**
  - If high burden of side effects/polypharmacy 58-75mmol/mol remains acceptable.
  - Above 70mmol/mol runs a higher risk of infection, admission and mortality however, the risks of exceeding this therefore may outweigh the benefits.
  - If medication is well tolerated a lower target may remain appropriate, but Hba1c <53mmol/mol can suggest increased risk of hypoglycaemia and potential over treatment.

- **Severe frailty and/or approaching end of life**
  - **Focus on symptom control**
  - Avoid hypoglycaemia.
  - Consider stopping routine HbA1c.
  - If continuing, aim for 64-75 mmol/mol (ideally 64-70mmol/mol to reduce the risk of infection and admission if no side effects or medication burden).

Special note - Continuous Glucose Monitoring (CGM):

Aim for 0% time in range for <3.9mmol/L

Consider the need for ongoing CGM if hypogylcaemia risk is reducedfollowing medication changes.

An approach to deprescribing glucose lowering medication in adults living with frailty

Medications to STOP or REDUCE first:

Insulin (complex regimens):

- Insulin carries the highest hypoglycaemia risk and administration burden (requires patient competence or carer support)
- Simplify to basal or reduce
- Consider stopping in severe frailty
- Exercise caution/seek specialist advice if previous diabetic ketoacidosis (DKA) or risk factors for DKA however

Sulfonylureas: (gliclazide/glimepiride)

- High hypoglycaemic risk increasing risk of falls, confusion, hospital admission and death
- If needed, replace with DPP-4 inhibitors (Sitagliptin/Linagliptin) due to a lower hypoglycaemia risk, once daily oral dosing and low monitoring burden

Pioglitazone:

- Avoid in frailty if heart failure, oedema or risk of falls (can induce fluid retention and increase fracture risk)

CONTINUE with caution:

Metformin (if eGFR ≥30):

- Rationale for continuing: low hypoglycaemic risk, cardiovascular (CV) and possible longevity benefits
- Revisit/stop if AKI, poor oral intake, GI side effects or at onset of severe frailty as limited benefit

DPP-4 inhibitors (low hypoglycaemia risk-as above)

Consider MDT /Specialist DISCUSSion:

SGLT2: (dapagliflozin/empagliflozin)

- Strong CV/renal positive outcome data but potential volume depletion or infection issues so requires a personalised decision
- Consider stopping if risks may outweigh benefits (Dehydration, AKI, recurrent urinary tract infection/genital infection, falls, unintentional weight loss)

GLP-1RA: (semaglutide/tirzepatide)

- Use with extreme caution if weight loss/poor appetite, nausea, cognitive impairment or high care burden (injectable)
- May be appropriate in less frail individuals with obesity and need for CV benefit, but not routinely recommended in moderate/severe frailty

Suggested triggers for deprescribing:

- Recurrent/severe hypoglycaemia
- Limited life expectancy
- Falls
- Weight loss
- GI side effects (weigh up risk of volume depletion, nutrition, incontinence, electrolyte imbalance and these side effects increasing secondary falls risk against medication benefit)
- Acute kidney injury (AKI)
- Cognitive decline
- High treatment burden
- Carer strain which may cause to medication delivery inconsistencies/errors
- Medication linked infections.

Key actions when making medication changes:

- Document frailty with appropriate readcode/CFS score
- Set individual HbA1c target
- Ensure shared decision-making- involve patient, carer and GP/MDT/community HCOP/secondary care as needed
- Safety-net: reinforce sick-day rules, hold metformin/SGLT2 in AKI/acute illness, ensure carers can recognise hypoglycaemia,
- symptomatic hyperglycaemia or DKA (if needed and provide written personalised medication plan)
- Arrange 1–4 week follow-up after all major changes
- Check capillary BG and renal function as indicated
- Check changes haven't induced new symptoms.

Additional reading:

https://diabetesonthenet.com/diabetes-primary-care/factsheet-deprescribing/
Useful support document for deprescribing including practical advice to reduce non-insulin glucose lowering medications with dosing guidance.

https://diabetesonthenet.com/diabetes-primary-care/diabetes-distilled-primum-non-nocere/ Insight article around deprescribing in type II diabetes.

References:

1. Type-2-diabetes-prescribing-in-frailty-v1.1-September-2024.pdf
2. diabetes-policy-with-nice-approval-wirral-care-homes-70618-locked.pdf
3. https://idf.org/media/uploads/2023/05/attachments-48.pdf
4. Abdelhafiz AH, Sinclair AJ. Management of type 2 diabetes in older people. Diabetes Ther. 2013 Jun;4(1):13-26. doi: 10.1007/s13300-013-0020-4. Epub 2013 Apr 19. PMID: 23605454; PMCID: PMC3687094.
5. https://www.diabetes.org.uk/sites/default/files/2017-09/Care-homes-0110_0.pdf
6. Diagnosing Diabetes Devon and Cornwall ICB
7. Strain WD, Down S, Brown P, Puttanna A, Sinclair A. Diabetes and Frailty: An Expert Consensus Statement on the Management of Older Adults with Type 2 Diabetes. Diabetes Ther. 2021 May;12(5):1227-1247. doi: 10.1007/s13300-021-01035-9. Epub 2021 Apr 8. PMID: 33830409; PMCID: PMC8099963.
8. https://share.google/WCQhg2PJJzXWw5L5s NHS Somerset ICB
9. Frailty, Learning Disability, and Severe Mental Illness - NHS England Digital
10. Overview | Type 2 diabetes in adults: management | Guidance | NICE
11. https://www.bmj.com/content/bmj/375/bmj-2021-066061.full.pdf
12. Pragmatic prescribing to reduce harm for older people with moderate to severe frailty | British Geriatrics Society

Author Dr Anna Kirby BSc(hons), MBChB(dis), MRCGP (2014), on behalf of Nottingham and Nottinghamshire ICB and in association with Nottinghamshire Area Prescribing Committee.

Version 1. January 2026: Review date January 2029.

Decision Tree to be used alongside: A guide to personalising Glucose management in older type 2 diabetic patients living with frailty'.