PRIMARY CARE
ISSUES & ANSWERS

CHECKLIST

The checklist below may be used as a prompt when reviewing medical records and/or during the initial consultation with the patient.

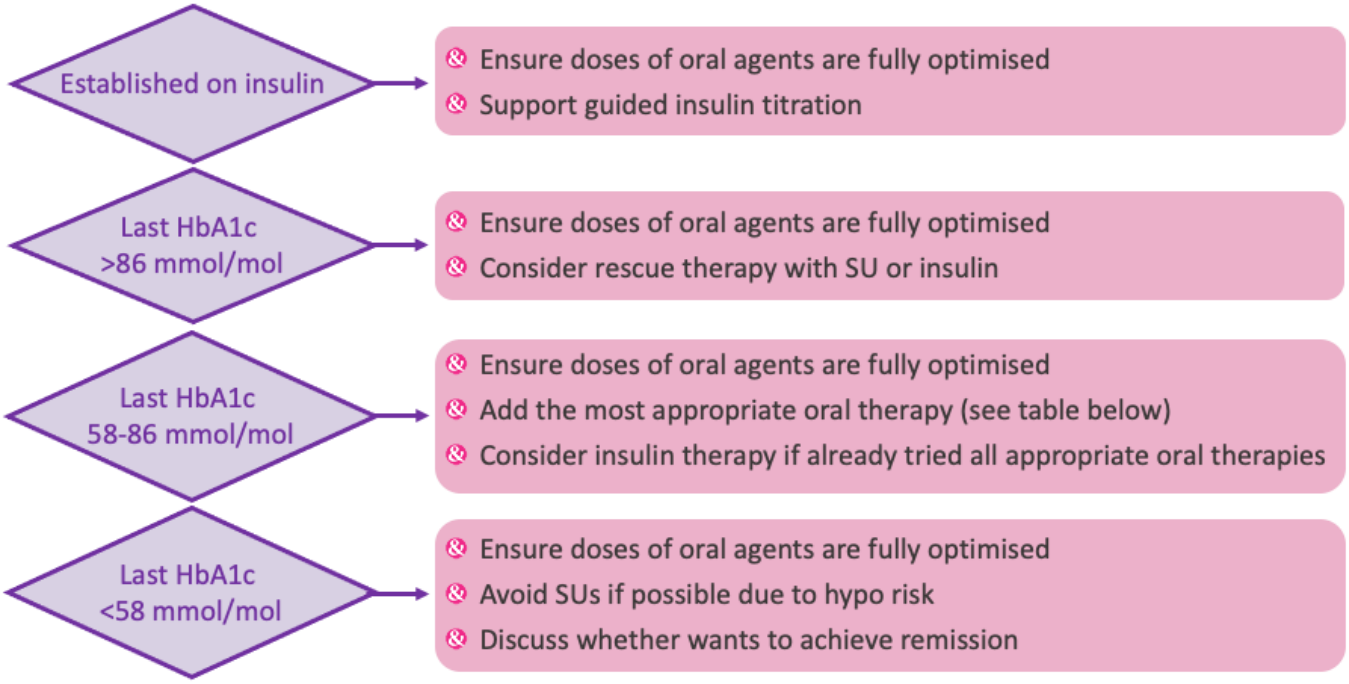
- [ ] Check date of T2D diagnosis and duration.
- [ ] Check last HbA1c - if over 6 months ago repeat (also note latest eGFR/ACR, BMI, CV risk status). If recent escalation of treatment, consider repeating if over 3 months ago.
- [ ] Decide on an appropriate HbA1c target for individual (taking account of the person's preferences and needs, duration of diabetes, co-morbidities, frailty status, life expectancy).
- [ ] Are there any signs of worsening glycaemic control (eg. increasing thirst, passing urine more frequently, tiredness) which would suggest need for immediate review/rescue therapy?
- [ ] Does individual perform self-monitoring of glucose? If so, assess results.
- [ ] Which GLP-1 RA is currently being prescribed – record start date, HbA1c reductions and weight loss over time (if an appropriate clinical response, consider adding individual to a register for re-starting GLP-1 RA therapy in the future when supply issues are resolved).
- [ ] What is person's lived experience on all current therapy? (Are they satisfied with measured outcomes: HbA1c reduction, weight loss? Have they experienced any tolerability problems?)
- [ ] Is there scope to reinforce advice about diet and lifestyle (consider local services and referral pathways to support this)?
- [ ] Review current medications – check adherence and consider if there is scope to titrate doses of existing glucose-lowering agents.
- [ ] List all previously prescribed diabetes medications - record start date and response in terms of HbA1c reduction. Determine why agents were stopped (note any adverse effects, tolerability issues, poor efficacy). Have circumstances altered? Can re-prescribing be considered?
- [ ] Consider individual clinical circumstances eg., co-morbidities, cautions/contraindications, weight and risks from polypharmacy and identify any classes of glucose-lowering medication that would be contraindicated and those that should be used with caution.
- [ ] Identify classes of glucose-lowering medication most suited to the individual taking account of the following:
  - Glucose-lowering potency required (high-moderate-low)
  - CV risk status
  - Existing heart failure
  - CKD stage/eGFR
  - BMI/weight
  - Risks associated with hypoglycaemia (eg. occupation, driving)

See "*Oral glucose-lowering therapies by class*"

The focus here is mainly on glycaemic management but this is a good opportunity to perform a holistic review of all care processes.

USEFUL INFORMATION

Reiterate lifestyle guidance and check medication adherence for all



Key features of glucose lowering medication

Type 2 diabetes remission	& **Remission less likely with Type 2 diabetes >6 years and in individuals managed with insulin therapy** & **Requires motivation (and knowledge of local service provision and referral pathways)**
Metformin	**RECOMMENDED FIRST-LINE OPTION** & **Moderate glycaemic efficacy** & **Weight loss +** & **Low risk of hypoglycaemia** & **ASCVD benefit** & **GI side effects common** ➢ Where there have been tolerability problems previously - was modified release version tried, if not worth trying this or using a lower dose. ➢ Caution in hepatic failure & alcoholism. ➢ Advise patient to temporarily stop during any acute dehydrating illness (give robust sick day guidance). ➢ Reduce dose to 500 mg bd if eGFR 30-45 and avoid if eGFR <30.

USEFUL INFORMATION

Key features of glucose lowering medication

SGLT2i

RECOMMENDED AS FIRST-LINE OPTION (WITH OR WITHOUT METFORMIN) IN THOSE WITH ESTABLISHED CVD, HEART FAILURE AND/OR CKD

- **Moderate glycaemic efficacy (but minimal where eGFR<45)**
- **Weight loss ++**
- **Low risk of hypoglycaemia**
- **ASCVD, HF and CKD benefit**
- **Mycotic genital infections and UTIs may occur**

- MHRA (2019a) warns of rare reports of Fournier's gangrene; reinforce good personal hygiene and adequate hydration. MHRA (2017) warns of possible class effect of lower limb amputation (predominantly toe); avoid all SGLT2 inhibitors in those with active/past diabetic foot disease or symptomatic peripheral vascular disease. MHRA (2016) warns of euglycaemic DKA; if suspected, check ketones even if BG.
- Advise patient to temporarily stop during any acute dehydrating illness sick day guidance).
- Avoid ketogenic or starvation diet.
- Use with caution in very high HbA1c (>86 mmol/mol) and if insulin treated within 1 year of diagnosis.

DPP4i

- **Low/moderate glycaemic efficacy**
- **Weight neutral**
- **Low risk of hypoglycaemia**
- **Well-tolerated**

- Possible increase in pancreatitis (NOTE: Same with GLP1 RA).

Pioglitazone

- **Moderate glycaemic efficacy**
- **Weight gain ++**
- **Low risk of hypoglycaemia**
- **Possible CV benefit**
- **Beneficial effect in fatty liver**
- **Can cause fluid retention**

- Contraindicated in heart failure, caution in macular oedema.
- Avoid in severe hepatic impairment
- Increases fracture risk – caution/avoid in post-menopausal women
- Possible link with bladder cancer and contraindicated in uninvestigated haematuria and bladder cancer (dipstick urine before starting).

USEFUL INFORMATION

Key features of glucose lowering medication

Sulfonylurea

RAPID EFFECT TO LOWER BLOOD GLUCOSE LEVELS - USEFUL AS RESCUE THERAPY WHERE GLUCOSE HIGH AND SYMPTOMATIC

- **High glycaemic efficacy**
- **Weight gain +**
- **High risk of hypoglycaemia**
- **No CV benefit**
- **Useful as rescue therapy for symptomatic hyperglycaemia**

- Efficacy dependant on sufficient residual β-cells function
- Self-blood glucose monitoring required for all to assist dose titration and identify hypoglycaemia. Avoid in frailty. Give driving and hypoglycaemia advice.

Insulin

USEFUL AS RESCUE THERAPY WHERE GLUCOSE HIGH AND SYMPTOMATIC (and inadequate response to SU or where SU not appropriate)

- **High glycaemic efficacy**
- **Weight gain +**
- **High risk of hypoglycaemia**
- **No CV benefit**

- Where insulin therapy is clinically indicated, initiate in line with NICE NG28 principles: https://www.nice.org.uk/guidance/ng28/chapter/recommendations - insulin-based-treatments.
- Specific insulin brands recommended within NICE NG28 may not have capacity for large uplift in prescribing, so base decisions on choice on ongoing insulin availability within the SPS supply tool: https://www.sps.nhs.uk/articles/prescribing-available-insulins/

Insulin therapy should only be initiated and managed by healthcare professionals with the relevant expertise and training

Adapted from: What next after metformin? A GPnotebook Shortcut. Diabetes & Primary Care 22: 33–4 available at: dotn767835b99d7d90d9aae5068e8362eaee.pdf (diabetesonthenet.com)

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