

MEDICATION CHOICES IN COMPLEX PATIENTS

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WELCOME
TO OUR
CMDT



AIMS

MANAGEMENT ADVICE

ACCESS TO EXPERTISE AND RESOURCES

WEEKLY SET TIME

EMAIL CASE TO CO-ORDINATOR

QUICK RESPONSE – ADMIN SUPPORT

SAVES A FORMAL REFERRAL

ENABLED

MRS F 73 YEAR OLD

ISSUE- HBA1C NOT AT TARGET

- BMI 29
- Hba1c 90
- Diet 'dreadful'
- Glic 160 + 160
- Empa 10 mg
- Alogliptin 25 mg
- MTF stopped by gastro – GI upset
- WHAT NEXT?

WHAT ARE THE OPTIONS?

- DO WE HAVE ANY OTHER INFO- CBG?
- STOP ANY OF THE CURRENT MEDS?
- ADD SOMETHING ELSE?
- IF SO WHAT?
- PIO / GLP-I / INSULIN

OUTCOME

- STOP DPP4
- ADD PIO IF NO CI
- IDEALLY GLP-I
- WHAT ABOUT INSULIN?

PIOGLITAZONE

- PROS
 - FATTY LIVER DISEASE
 - IMPAIRED RENAL FUNCTION
 - MAY HELP DYSLIPIDAEMIA
 - IF HYPOGLYCAEMIA IS A CONCERN
- CONS
 - OEDEMA / HEART FAILURE
 - LOW BONE DENSITY (POST MENOPAUSAL WOMEN)
 - HX BLADDER CANCER
 - WEIGHT GAIN (DOSE)
 - PRECONCEPTION

MRS A 37 YEAR OLD ISSUE – ACCEPTABLE THERAPY

- BMI 33.6
- HbA1c 52
- Other indices satisfactory
- No meds
- MTF- GI upset
- SGLT2- thrush
- Aloglip – CBG no better
- SU- noted weight gain in past

WHAT ARE THE OPTIONS?

- LIFESTYLE ADVICE AND WEIGHT LOSS
- HAS PREVIOUSLY ATTENDED WW
- WANTS GLP-I
- PIO

OUTCOME

- GLP-I YES ONCE AVILABLE
- PIO - CONCERN OVER WEIGHT GAIN LIKE SU
- A I C - ACCEPTABLE

MRS A 32 YEAR OLD ISSUE HBA1C NOT AT TARGET

- DIAGNOSED MAY 22
- HBA1C 50
- NO MEDS
- HBA1C NOW 111
- 8 KG WEIGHT LOSS
- BMI 35
- WHAT NEXT?

OUTCOME

- WORSENING CONTROL DUE TO GLUCOTOXICITY
- CHECK ANTIBODIES
- START MTF
- START SU
- MAY REQUIRE INSULIN
- CDSN TO FOLLOW UP CBG

MR S 60 YEAR OLD. LD AND LIVES ALONE ISSUE- HBAIC NOT AT TARGET

- HBAIC 90
- EGFR 32
- BMI 31
- MTF AND EMPA STOPPED
- GLP-I STOPPED AS IP
- HUMULIN M3 TRICKY – AFTERNOON VISIT

WHAT ARE THE OPTIONS?

- ACCEPT THE STATUS QUO
- ADD PIO?
- SOMETHING ELSE?
- WHAT ABOUT THE MTF AND SGLT2i?
- WHAT ABOUT THE INSULIN?
- MONITORING

OUTCOME

- CONSIDER LOW DOSE MTF
- SWAP TO BASAL INSULIN
- CONSIDER GLP-I ONCE AVAILABLE

MRS S 61 YEAR OLD ISSUE – DERANGED LFTS / MEDS ADVICE

- LFT'S DERANGED
- AST 415 ALT 442 BIL 21 (NEW)
- MTF STOPPED
- ON ALOGLIP AND EMPA
- HBAIC 67
- BMI 24.5

OUTCOME

- ACCEPT CURRENT HBA I C
- PIO
- SU. (BMI)
- REVISIT THE MTF

MR D 75 YEAR OLD ISSUE- HBAIC NOT AT TARGET

- NOV 22 HBAIC 75
- MTF 2G
- ALOGLIP 25MG
- GLIC 80+40 MG
- DAPA STARTED AND GLIC REDUCED TO 40+40MG
- BMI 26
- eGFR > 60
- HBAIC NOW 63

QUESTION ASKED SHOULD THE GLICLAZIDE DOSE INCREASE?

- THOUGHTS
- AGREED NO

MRS D 67 YEAR OLD ISSUE – HBAIC ‘BELOW’ TARGET

- APRIL 22 HBAIC 110
- COMMENCED ON MTF 2G AND SU
- GLIC DOSE 160+ 160 MG
- NOV 22 HBAIC 63
- SGLT2 ADDED
- AUG 23 HBAIC 43
- BMI 29
- eGFR > 60
- ACR –
- BP 114/72

QUESTION ASKED SHOULD MEDICATIONS BE REDUCED / STOPPED?

- THOUGHTS
- WHICH ONES?
- DEPRESCRIBING GUIDANCE

Health status	HbA _{1c} treatment target and fasting blood glucose targets	HbA _{1c} deprescribing threshold
Healthy, younger individuals with low hypoglycaemia risk	<53 mmol/mol 4–7 mmol/L	<42 mmol/mol
Healthy, older adult (>65 years)/pre-frail/mild frailty and functionally independent	<58 mmol/mol 5–7 mmol/L	<53 mmol/mol
Moderate to severe frailty, >2 comorbidities, reduced life expectancy or mild cognitive function	≤64 mmol/mol 6–8 mmol/L	<58 mmol/mol
Very severe frailty, significant comorbidity, limited life expectancy, moderate-to-severe cognitive impairment	≤70 mmol/mol 7–10 mmol/L	<64 mmol/mol
End of life/palliative care	Manage symptomatic hyperglycaemia	n/a

Principles of reducing non-insulin glucose-lowering drug doses and monitoring requirements.

Drug or drug class	Hypo risk	Dose reduction	When and how often to monitor	Examples of situations where deprescribing is necessary
Metformin	Low	500–1000 mg every 3 months, if eGFR and/or HbA _{1c} allow	Monitor signs of hyperglycaemia. Check HbA _{1c} in 3 months	Adverse effects/tolerability; adherence; below-target HbA _{1c} due to lifestyle changes or effectiveness of treatment regimen; to reduce tablet burden; end of life; new onset of clinical conditions that lead to contraindications (e.g. acute unstable chronic heart failure or renal impairment)
Sulfonylurea (e.g. gliclazide)	High	40–80 mg reduction at a time, guided by patient's blood glucose profile	Monitor fasting and pre-evening-meal blood glucose levels, and detitrate accordingly. Check HbA _{1c} in 3 months	Hypoglycaemia or risk of hypoglycaemia due to lifestyle changes or effectiveness of treatment regimen; no longer needed for rescue therapy or steroid-induced hyperglycaemia; to reduce tablet burden; treatment failure; frailty; end of life; low cognitive function; adherence; new onset of clinical conditions that lead to contraindications (e.g. severe renal or hepatic impairment)
Pioglitazone	Low	If at 45 mg, can reduce to 30 mg, then 15 mg, then stop; or stop immediately, especially if comorbidity arises and causes contraindication	Monitor signs of hyperglycaemia. Check HbA _{1c} in 3 months	Treatment failure; adverse effects; below-target HbA _{1c} due to lifestyle changes or effectiveness of treatment regimen; end of life; new onset of clinical conditions that lead to contraindications (e.g. uninvestigated macroscopic haematuria)
SGLT2 inhibitor	Low	Stop	Monitor signs of hyperglycaemia. Check HbA _{1c} in 3 months	Adverse effects/tolerability; adherence; new onset of clinical conditions that lead to contraindications (e.g. DKA); frailty; end of life
DPP-4 inhibitor	Low	Stop	Monitor signs of hyperglycaemia. Check HbA _{1c} in 3 months	Treatment failure; adverse effects; below-target HbA _{1c} due to lifestyle changes or effectiveness of treatment regimen; new onset of clinical conditions that lead to contraindications (e.g. pancreatitis); end of life
GLP-1 receptor agonist	Low	If on high dose, reduce to maintenance dose. Can stop completely but advise patient of potential risk of weight gain	Monitor signs of hyperglycaemia. Check HbA _{1c} in 3 months	Adverse effects/tolerability; adherence; below-target HbA _{1c} due to lifestyle changes or effectiveness of treatment regimen; treatment failure; frailty; end of life; new onset of clinical conditions that lead to contraindications (e.g. pancreatitis)

MR S 58 YEAR OLD ISSUE HIGH HBAIC

- SEPT 22 HBAIC 68
- SEPT 23 HBAIC 115
- EMPA 10 MG
- GLIC 160 + 160 MG
- DULAG 1.5 MG
- DID NOT TOLERATE MTF
- EGFR > 60
- BMI 27
- HIV +
- ON ANTIVIRALS

QUESTION ASKED

HOW SHOULD WE ESCALATE THERAPY?

- RECONSIDER MTF
- PIO
- GLP-1 RA DOSE
- INSULIN

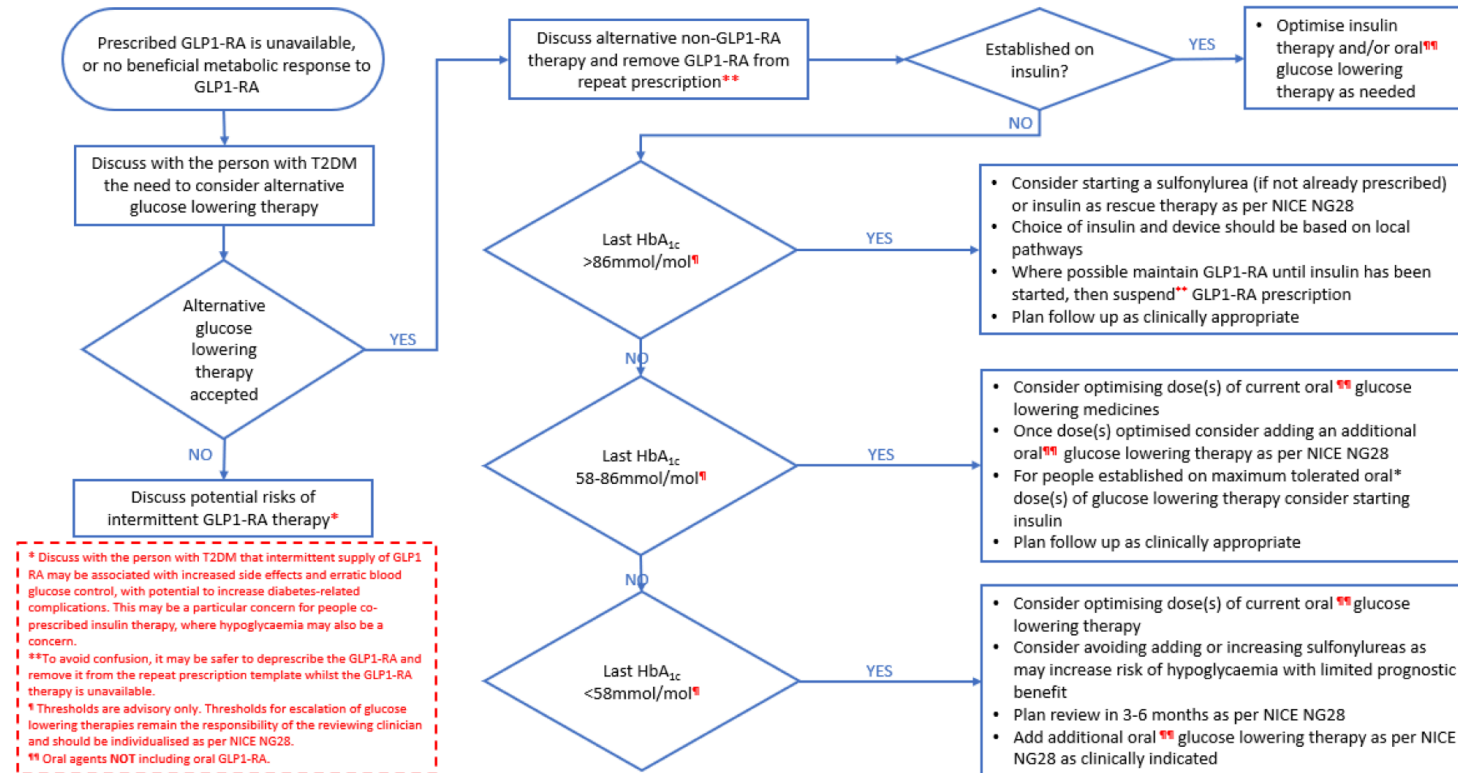
HIV CONSIDERATIONS

- AGE / OBESITY
- HEP C
- STEROID USE / ANTIPSYCHOTICS
- VISCERAL FAT ACCUMULATION/ LIPOHYPERTROPHY
- DYSLIPIDAEMIA
- PROTEASE INHIBITORS GENERATE INSULIN RESISTANT STATE
- MTF AND TZD
- INSULIN- HIGH DOSES
- REMEMBER WEIGHT AND EXERCISE ADVICE

THEMES

- HbA1c NOT AT TARGET
- PERSONALISE
- GLP-I SUPPLY ISSUES
- <https://www.pcdsociety.org/pcds-abcd-guidance-glp1-shortage>
- USE OF PIOGLITAZONE
- CO-MORBIDITIES

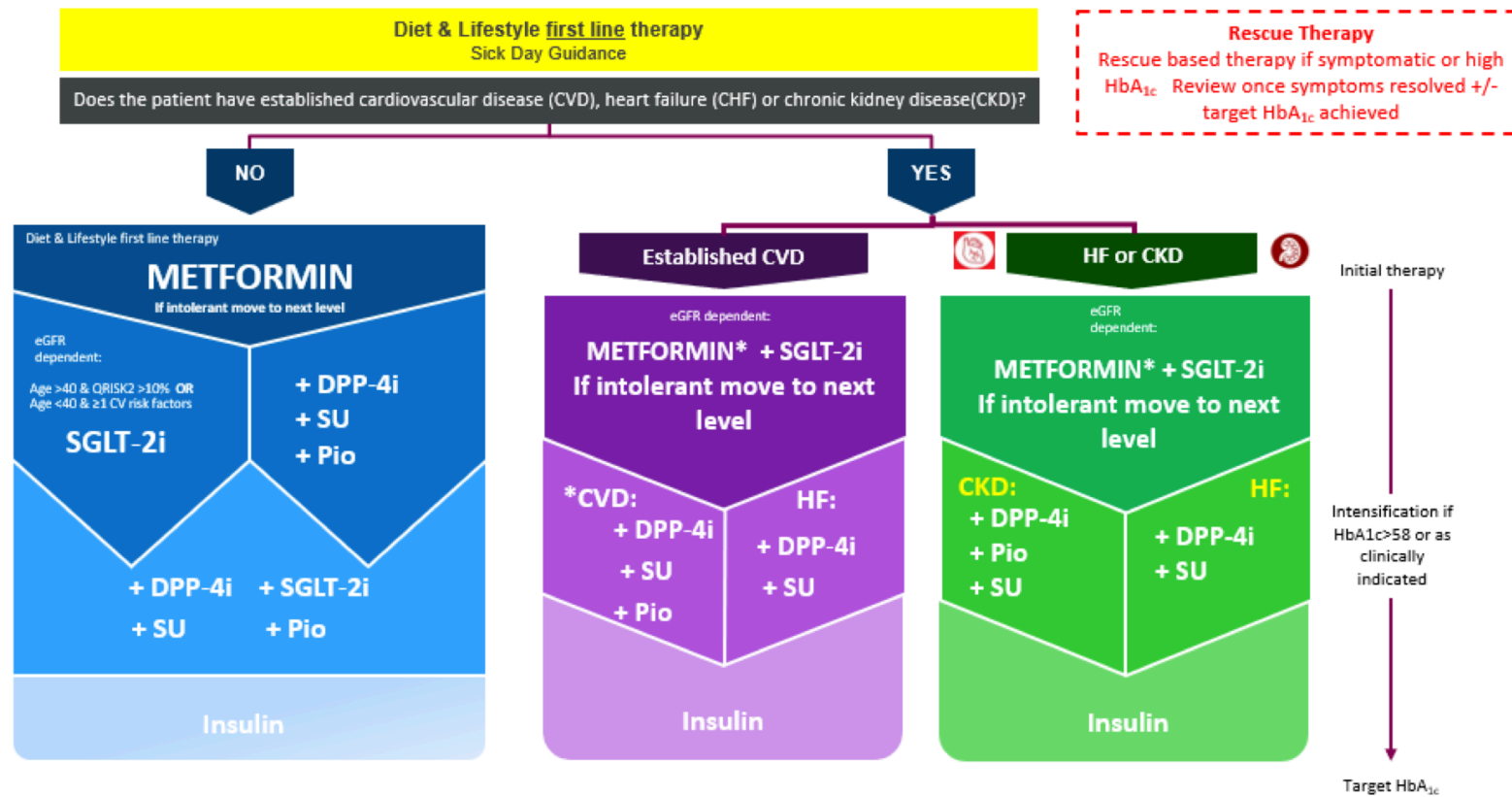
Figure 1. Choosing alternative glucose-lowering therapies in T2DM when GLP-1 RAs are unavailable or there is no beneficial metabolic response.



Note: Symptomatic hyperglycaemia may indicate clinical need for insulin therapy. If in doubt, discuss with specialist. Symptoms of hyperglycaemia include polyuria, polydipsia, weight loss and fatigue. Think 4Ts – Thirst, Toilet, Thinner, Tired.

Figure 2. Quick reference guide for selecting oral glucose-lowering therapy.

Based on NICE NG28, adapted with permission from the North West London Diabetes Glycaemic Management Guideline





ANY QUESTIONS?