MEDICATION CHOICES IN COMPLEX PATIENTS

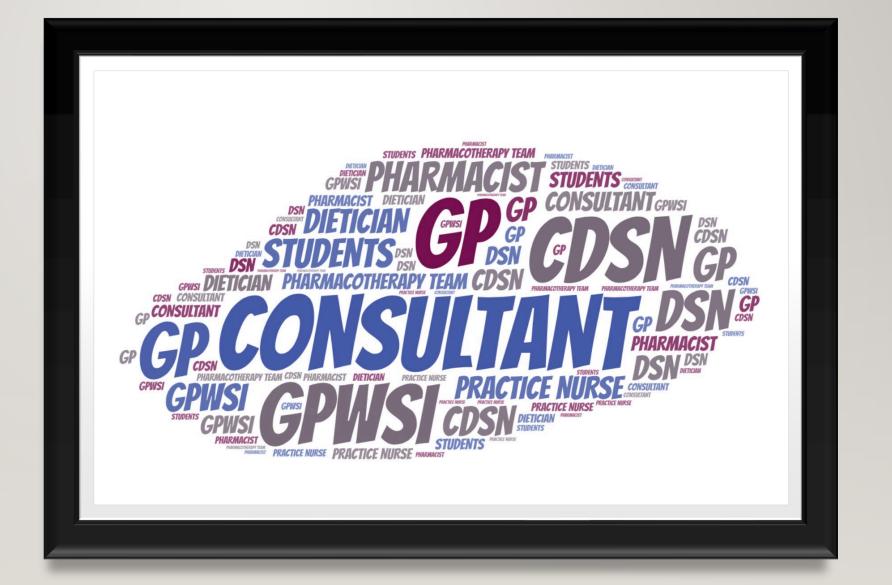
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WELCOME TO OUR CMDT



MANAGEMENT ADVICE

ACCESS TO EXPERTISE AND RESOURCES

WEEKLY SET TIME

EMAIL CASE TO CO-ORDINATOR

QUICK RESPONSE – ADMIN SUPPORT

SAVES A FORMAL REFERRAL

ENABLED

AIMS

MRS F 73 YEAR OLD ISSUE- HBA I C NOT AT TARGET

- BMI 29
- Hbalc 90
- Diet 'dreadful'

• WHAT NEXT?

- Glic 160 + 160
- Empa 10 mg
- Alogliptin 25 mg
- MTF stopped by gastro GI upset

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
- AIC ACCEPTABLE

MRS A 32 YEAR OLD ISSUE HBAIC NOT AT TARGET

- DIAGNOSED MAY 22
- HBAIC 50
- NO MEDS
- HBAIC NOW III
- 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- HBATC NOT AT TARGET

- HBAIC 90
- EGFR 32
- BMI 3 I
- 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
- SWAPTO 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 HBAIC
- 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 – HBA I C 'BELOW' TARGET

- APRIL 22 HBAIC II0
- COMMENCED ON MTF 2G AND SU
- GLIC DOSE 160+ 160 MG
- NOV 22 HBAIC 63
- SGLT2 ADDED
- AUG 23 HBATC 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

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 _{ic} 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)
Sulfonlyurea (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 _{Ic} 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 _{ic} in 3 months	Treatment failure; adverse effects; below-target HbA_{lc} 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 _{tc} 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 II5
- EMPA 10 MG
- GLIC 160 + 160 MG
- DULAG I.5 MG
- DID NOT TOLERATE MTF

- EGFR > 60
- BMI 27
- HIV +
- ON ANTIVIRALS

QUESTION ASKED HOW SHOULD WE ESCALATE THERAPY?

- RECONSIDER MTF
- PIO
- GLP-I 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

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

Optimise insulin Discuss alternative non-GLP1-RA Prescribed GLP1-RA is unavailable, YES Established on therapy and/or oral 119 therapy and remove GLP1-RA from or no beneficial metabolic response to glucose lowering insulin? repeat prescription** GLP1-RA therapy as needed NO Discuss with the person with T2DM Consider starting a sulfonylurea (if not already prescribed) the need to consider alternative glucose lowering therapy or insulin as rescue therapy as per NICE NG28 Choice of insulin and device should be based on local Last HbA_{1c} YES >86mmol/mol¶ Where possible maintain GLP1-RA until insulin has been started, then suspend GLP1-RA prescription Alternative Plan follow up as clinically appropriate glucose YES lowering therapy Consider optimising dose(s) of current oral "glucose accepted lowering medicines Once dose(s) optimised consider adding an additional NO oral glucose lowering therapy as per NICE NG28 Last HbA1c YES 58-86mmol/mol9 For people established on maximum tolerated oral* Discuss potential risks of dose(s) of glucose lowering therapy consider starting intermittent GLP1-RA therapy* insulin Plan follow up as clinically appropriate

Consider optimising dose(s) of current oral siglucose

Plan review in 3-6 months as per NICE NG28

Consider avoiding adding or increasing sulfonylureas as

may increase risk of hypoglycaemia with limited prognostic

Add additional oral "glucose lowering therapy as per NICE

lowering therapy

NG28 as clinically indicated

YES

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.

Last HbA_{1c}

<58mmol/mol

† Discuss with the person with T2DM that intermittent supply of GLP1
 RA may be associated with increased side effects and erratic blood
 elucose control, with potential to increase diabetes-related

**To avoid confusion, it may be safer to deprescribe the GLP1-RA and

remove it from the repeat prescription template whilst the GLP1-RA

1 Thresholds are advisory only. Thresholds for escalation of glucose

and should be individualised as per NICE NG28.

11 Oral agents NOT including oral GLP1-RA.

lowering therapies remain the responsibility of the reviewing clinician

complications. This may be a particular concern for people coprescribed insulin therapy, where hypoglycaemia may also be a

therapy is unavailable.

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

