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AACE guidance

The most recent American Association of Clinical Endocrinology (AACE) type 2 diabetes treatment algorithm emphasises individualised therapy while additionally incorporating newly acquired data about medications access and affordability, vaccinations, and weight loss drugs.

The algorithm takes the larger clinical practise guideline and organises those management concepts into a much easier to understand format that can be utilised in the clinic on a daily basis.

AACE Guidelines for Type 2 Diabetes Management 2023



NEW AACE RECOMMENDS INDIVIDUALIZED CARE

This consist of 11 detailed visual management algorithms , for the better understanding of the therapy and its management . The first includes ten overall management principles such as "lifestyle modification underlies all therapy," "maintain or achieve optimal weight," "choice of therapy includes ease of use and access," "individualize all glucose targets," "avoid hypoglycemia," and "comorbidities must be managed for comprehensive care."

Three more algorithms cover the diabetes-adjacent topics of adiposity-based chronic disease, prediabetes, dyslipidemia, and hypertension.

"Overall, the diabetes medication algorithm has been split in order to emphasise the personalised approach to decision-making."

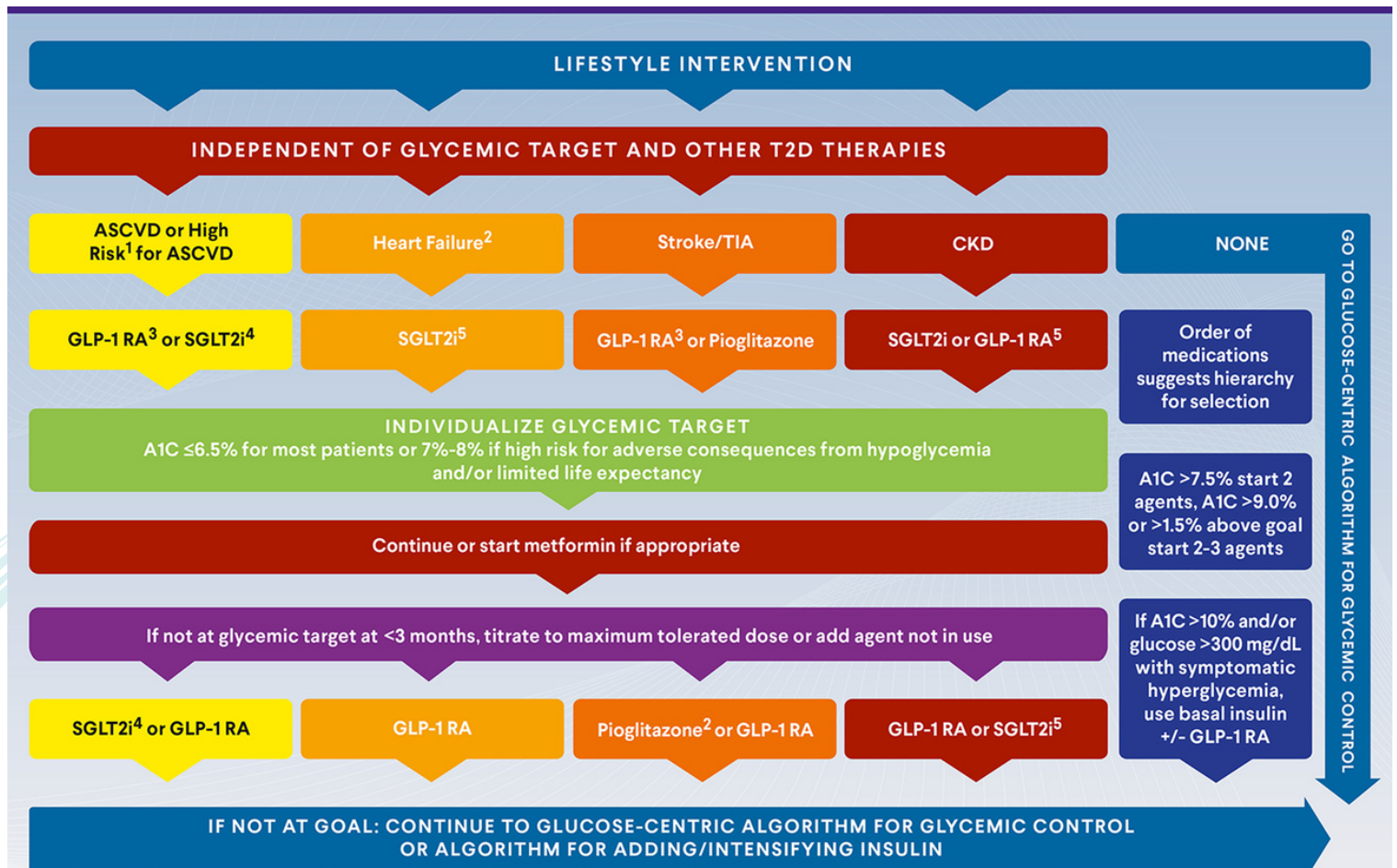
For full text click here:

[https://www.endocrinepractice.org/article/S1530-891X\(23\)00034-4/fulltext](https://www.endocrinepractice.org/article/S1530-891X(23)00034-4/fulltext)



"IT IS A NEW APPROACH TO DIVIDE THE GLUCOSE-LOWERING ALGORITHMS INTO "COMPLICATIONS-CENTRIC" AND "GLUCOSE-CENTRIC" GRAPHICS, THIS FOCUSES ON INDIVIDUAL REQUIREMENT AND MANAGEMENT OF THE DISEASE".

COMPLICATIONS - CENTRIC ALGORITHM

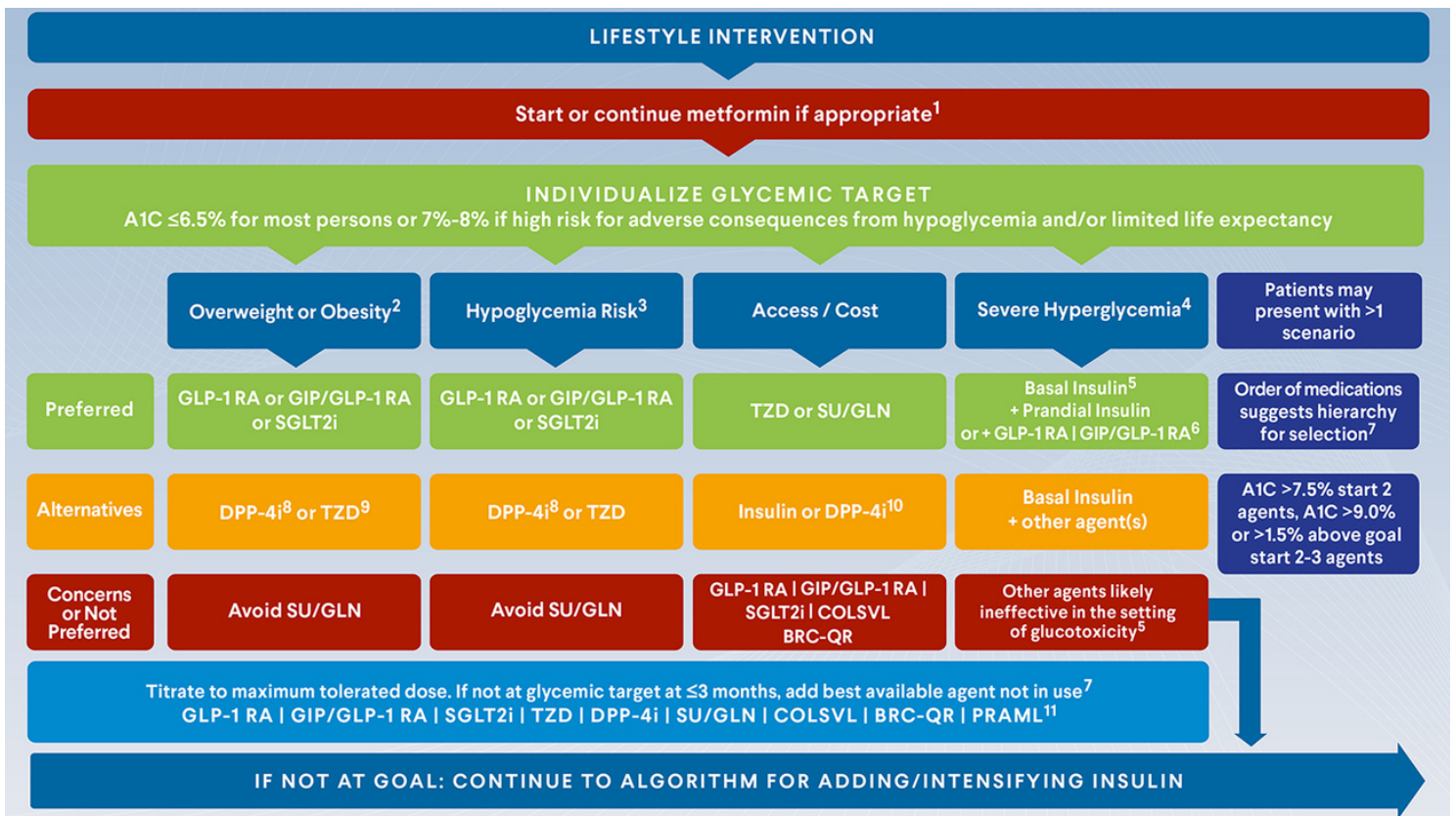


Complication-Centric Algorithm Suggests:

- Therapeutic lifestyle changes remain a fundamental component of glycemic control.
- Choices of Antidiabetic agents should be based on the conditions including ASCVD risk factors, Heart Failure, Stroke/TIA and CKD independent of Glycemic target.
- For **ASCVD** subset of diabetic patients - GLP-1RA and SGLT2i forms first line therapy.
- In **HF patients** - SGLT2i class of drugs are established as first line therapy.
- **Stroke/TIA** is a new segment addition to the algorithm where GLP-1RA or Pioglitazone are the preferred agents.
- SGLT2i and GLP-1RAs has substantial evidence to support its importance in **CKD** patients.



THE GLUCOSE-CENTRIC ALGORITHM



The Glucose-Centric Algorithm Recommends:

- This approach starts lifestyle intervention, use of metformin if appropriate and an individualized HbA1c target goal.
- Titration to the maximum tolerated dose at ≤ 3 months if the HbA1c target has not been reached.
- Those with overweight or obesity or people with a higher risk for hypoglycemia should receive a GLP-1RA and glucose-dependent insulinotropic polypeptide (GIP)/GLP-1 dual agonist or SGLT2i.
- For patients with access or cost concerns, TZDs & SUs are preferred options.



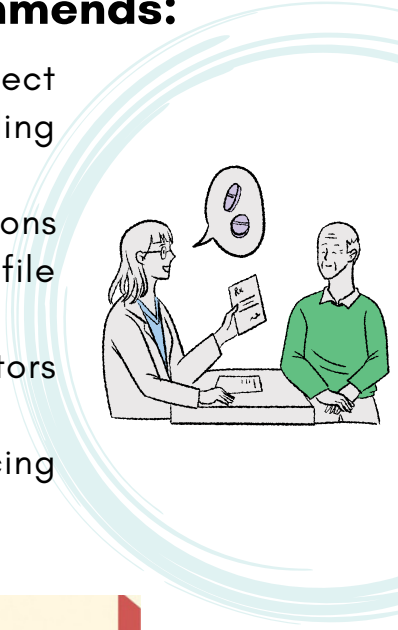
ANTIHYPERGLYCEMIC MEDICATIONS ALGORITHM :

	MET	GLP-1 RA	DUAL GIP/ GLP-1 RA	SGLT2i	TZD	INSULIN (basal & basal bolus)	DPP-4i	SU	GLN	AGI	COLSVL	BRC	PRAML
EFFICACY FOR GLUCOSE LOWERING	++	+++	+++	++	++	+++/++++	+	++	+	+	+	+	+
ASCVD	MACE	Benefit ^{1,3}	Safe	Benefit ²	Neutral ³	Neutral	Neutral	Possible Increased Risk	Neutral	Insufficient Evidence	Neutral ³	Safe	Insufficient Evidence
	CHF	Unclear		Reduced Risk	Moderate to Severe ⁴	Moderate	Moderate ⁴						
	STROKE	Benefit ⁵		Possible Benefit ²	Benefit	Neutral	Neutral						
CKD	CKD3a/3b ⁶	Benefit ⁷	Insufficient Evidence	Benefit	Neutral	Increased hypoglycemia risk with impaired renal function	Neutral	Increased hypoglycemia risk with impaired renal function	Not recommended SCR >2 mg/dL or CrCl <25	Neutral	Neutral	Neutral	Neutral
RENAL ADJUSTMENT	Not with CKD4 eGFR <30 ⁶	Exenatide not recommended eGFR <45		Check medication-specific eGFR thresholds ⁸			Adjust Dose ⁹						
HYPOGLYCEMIA RISK ¹⁴	Neutral	Neutral	Neutral	Neutral	Neutral	Moderate to Severe	Neutral	Moderate to Severe	Mild	Neutral	Neutral	Neutral	Neutral
WEIGHT	Slight loss	Loss	Loss	Loss	Gain ⁴	Gain	Neutral	Gain	Neutral	Neutral	Neutral	Neutral	Loss
NAFLD	Neutral	Benefit	Benefit	Potential Benefit	Benefit	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Benefit
GI ADVERSE SYMPTOMS	Mild to Moderate	Moderate ¹⁰	Moderate ¹⁰	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Moderate	Mild	Moderate	Moderate
OTHER CONSIDERATIONS		Medullary Thyroid Carcinoma/ MEN2	Medullary Thyroid Carcinoma/ MEN2	GU infections DKA ¹¹ Fracture Risk ¹²	Fracture Risk		Rare Arthralgias/ Myalgias						
ACCESS/COST	\$	\$\$\$	\$\$\$	\$\$\$	\$	\$ - \$\$\$ ¹³	\$-\$	\$	\$-\$	\$-\$	\$\$\$	\$\$\$	\$\$\$

■ Possible benefits
 ■ Use with caution
 ■ Likelihood of adverse events
 ■ Neutral, not studied, insufficient evidence

Antihyperglycemic Medication Algorithm Recommends:

- This algorithm provides a framework for clinicians to select antidiabetic agents considering different parameters including benefits and cautions in discussions with patients.
- Benefit risk ratio varies from patient to patient but medications such as DPP-4i, SGLT2i and GLP1-RA showcase a promising profile in many of the patients.
- The algorithm also includes access/cost of medications as factors related to health equity to consider in clinical decision-making.
- SGLT2i, GLP1-RA and Dual GIP/GLP-1RA shows benefit in reducing weight which is an important factor in diabetes management.



It seems that the new recommendations from this guideline will aid clinicians in tailor made therapy as per the requirement of individual patients. We are certain that the simplified algorithm provides a road map to easily navigate care and treatment based on both glycemic control and other conditions to improve a person's health and quality of life.

For any scientific queries on above topic
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