

# AACE/ACE COMPREHENSIVE TYPE 2 DIABETES MANAGEMENT ALGORITHM 2016

## TASK FORCE

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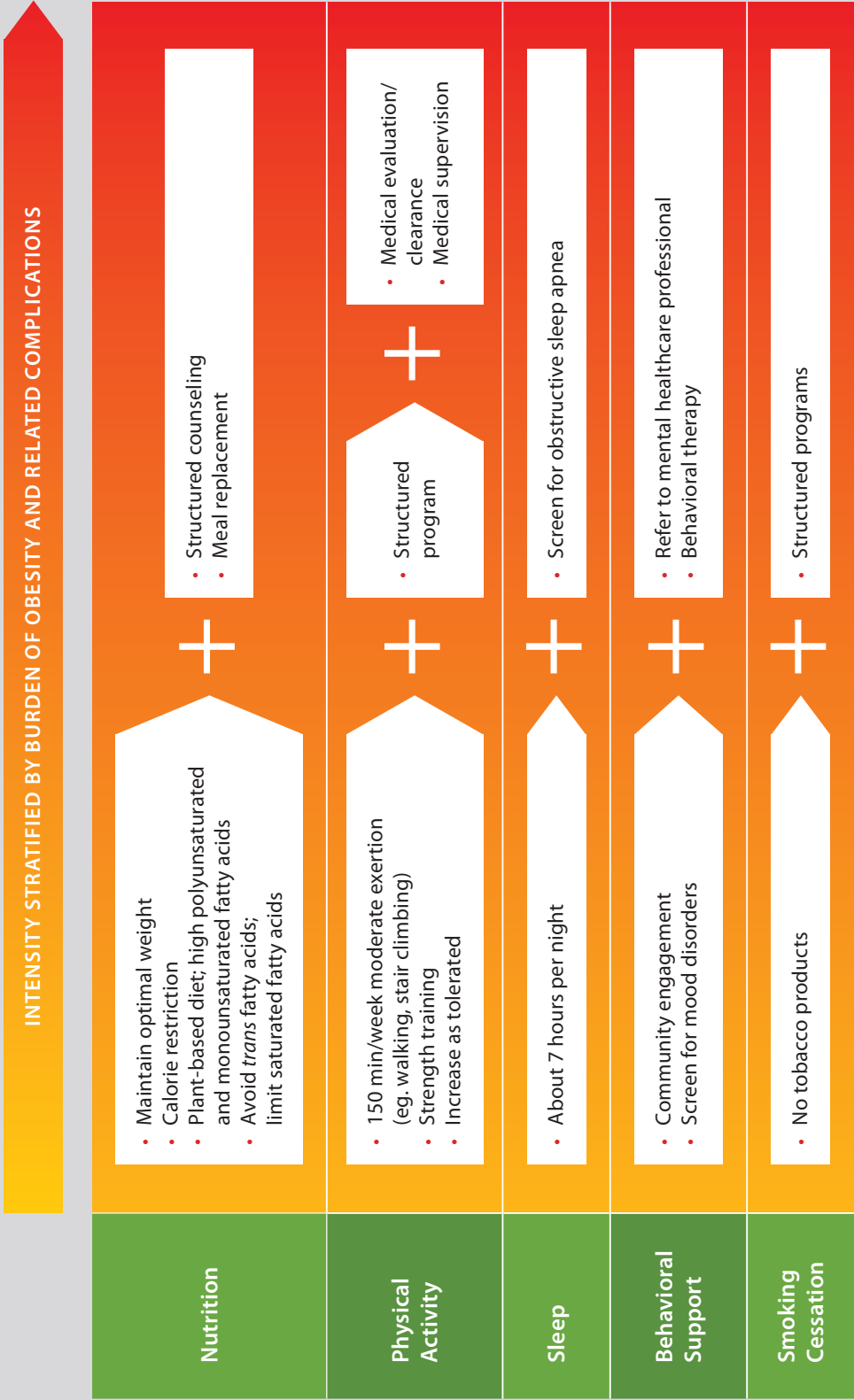
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# LIFESTYLE THERAPY

## RISK STRATIFICATION FOR DIABETES COMPLICATIONS





# COMPLICATIONS-CENTRIC MODEL FOR CARE OF THE OVERWEIGHT/OBESE PATIENT



## STEP 1

### EVALUATION FOR COMPLICATIONS AND STAGING

#### CARDIOMETABOLIC DISEASE | BIOMECHANICAL COMPLICATIONS

#### NO COMPLICATIONS

BMI  $\geq 25$

#### COMPLICATIONS

BMI  $\geq 27$ : Stage Severity of Complications

#### MILD TO MODERATE

#### SEVERE

## STEP 2

**SELECT:**

Therapeutic targets for improvement in complications

Treatment modality

Treatment intensity based on staging

#### Lifestyle Therapy:

Physician/RD counseling, web/remote program, structured multidisciplinary program

#### Medical Therapy (BMI $\geq 27$ ):

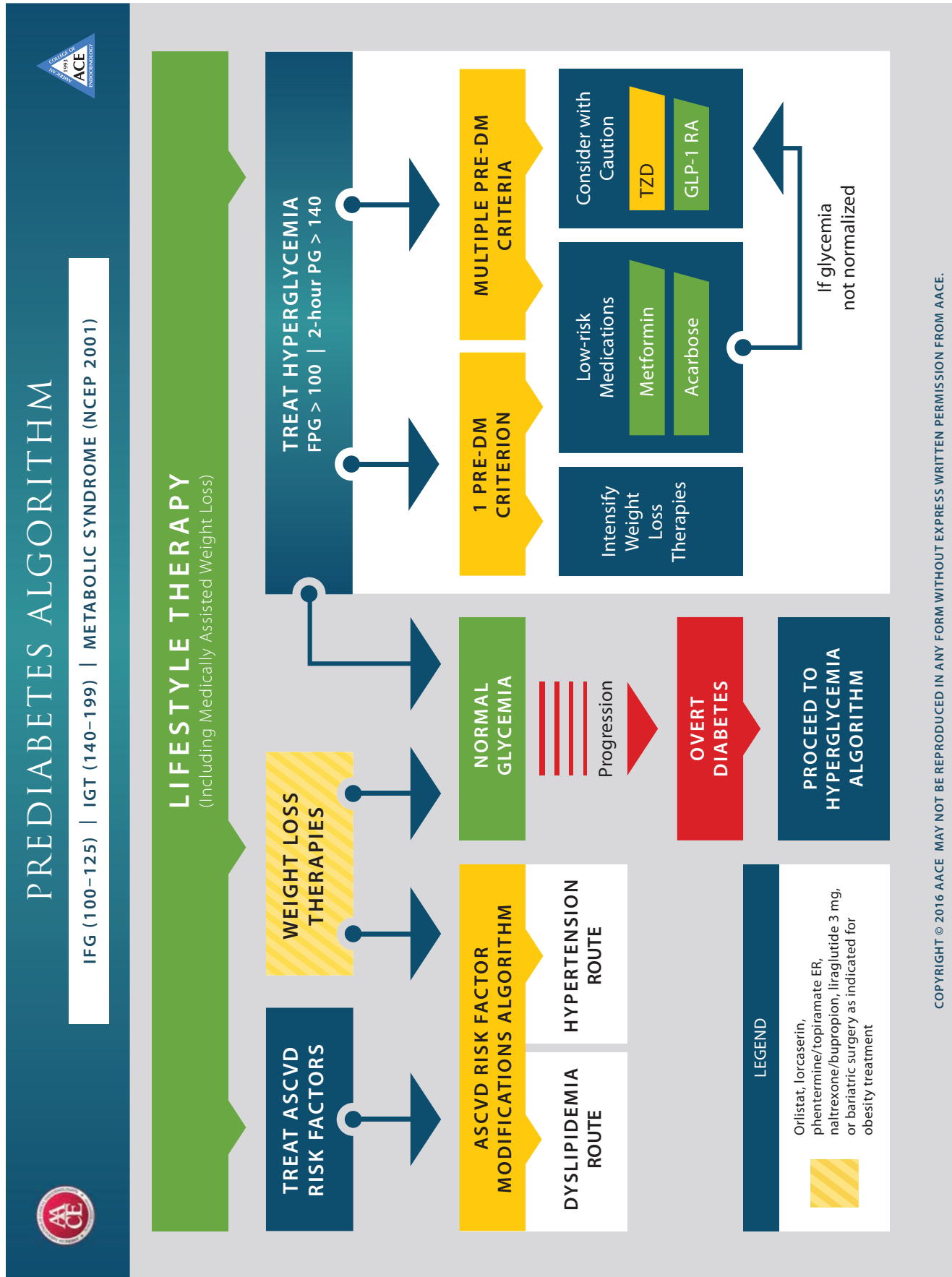
Phentermine, orlistat, lorcaserin, phentermine/topiramate ER, naltrexone/bupropion, liraglutide 3 mg

#### Surgical Therapy (BMI $\geq 35$ ):

Gastric banding, sleeve, or bypass

## STEP 3

If therapeutic targets for complications not met, intensify lifestyle, medical, and/or surgical treatment modalities for greater weight loss.





# GOALS FOR GLYCEMIC CONTROL



## INDIVIDUALIZE GOALS

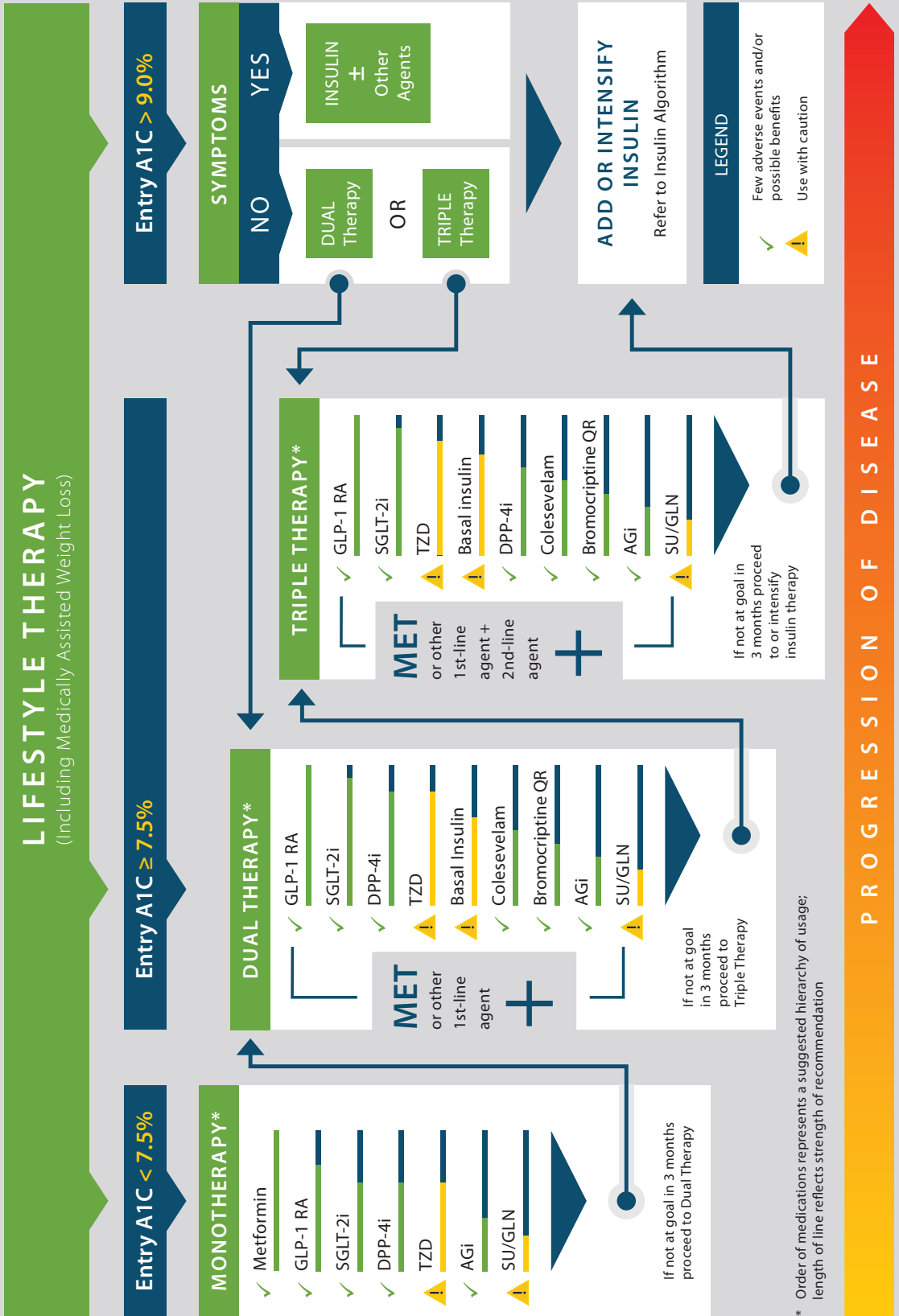
**A1C ≤ 6.5%**

For patients without  
concurrent serious  
illness and at low  
hypoglycemic risk

**A1C > 6.5%**

For patients with  
concurrent serious  
illness and at risk  
for hypoglycemia

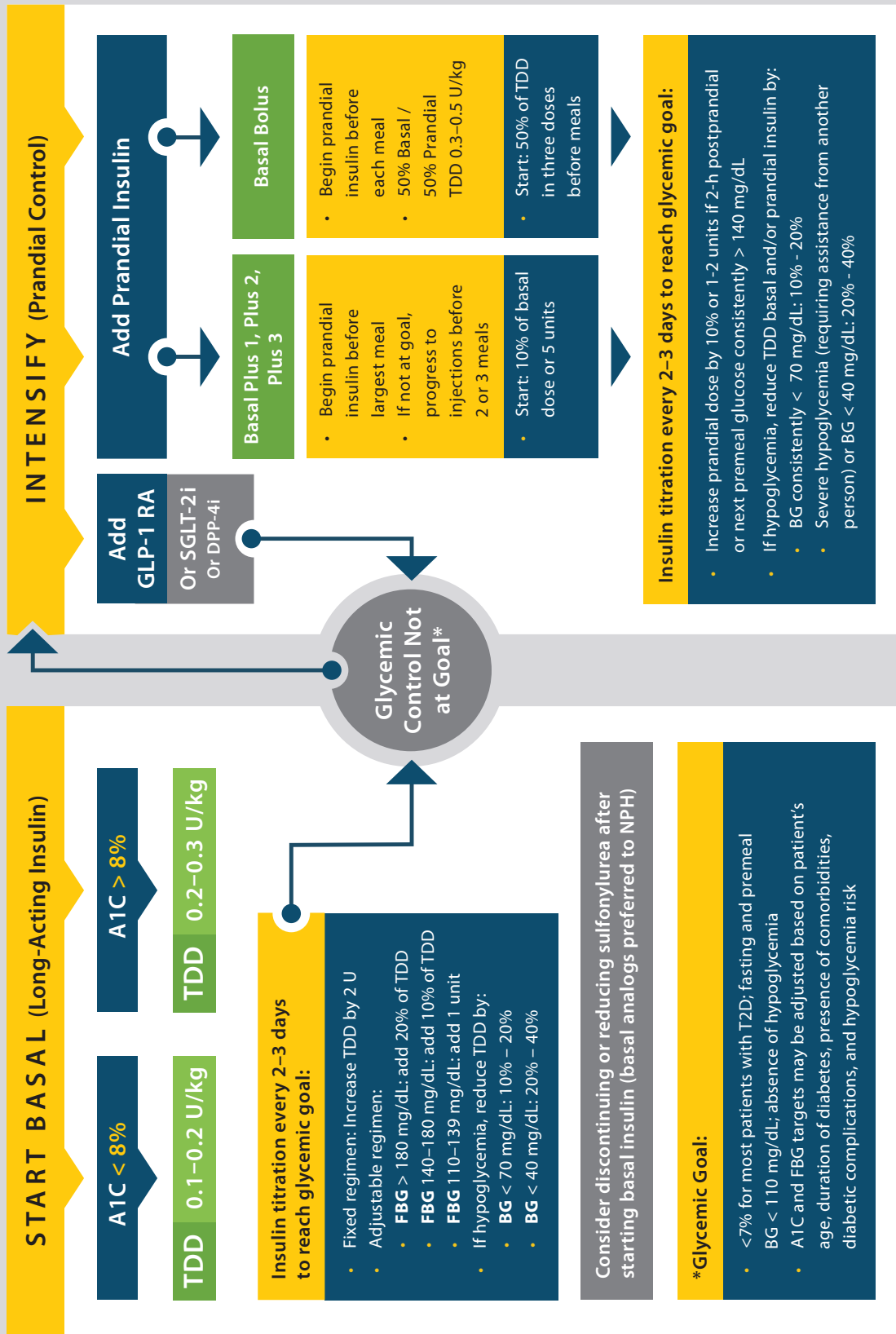
# GLYCEMIC CONTROL ALGORITHM



\* Order of medications represents a suggested hierarchy of usage; length of line reflects strength of recommendation



# ALGORITHM FOR ADDING/INTENSIFYING INSULIN







# ASCVD RISK FACTOR MODIFICATIONS ALGORITHM





# PROFILES OF ANTIDIABETIC MEDICATIONS



|              | MET                                  | GLP-1 RA                             | SGLT-2i  | DPP-4i   | AGi      | TZD<br>(moderate dose) | SU<br>GLN               | COLSVL  | BCR-QR   | INSULIN            | PRAML    |
|--------------|--------------------------------------|--------------------------------------|--|--|----------|------------------------|-------------------------|---------|----------|--------------------|----------|
| HYPO         | Neutral                              | Neutral                              | Neutral  | Neutral  | Neutral  | Neutral                | Moderate/Severe<br>Mild | Neutral | Neutral  | Moderate to Severe | Neutral  |
| WEIGHT       | Slight Loss                          | Loss                                 | Loss   | Neutral  | Neutral  | Gain                   | Gain                    | Neutral | Neutral  | Gain               | Loss     |
| RENAL/<br>GU | Contra-indicated<br>CKD Stage 3B,4,5 | Exenatide Not Indicated<br>CrCl < 30 | Not Effective with eGFR < 45<br>Genital Mycotic Infections | Dose Adjustment Necessary (Except Linagliptin) | Neutral  | Neutral                | More Hypo Risk          | Neutral | Neutral  | More Hypo Risk     | Neutral  |
| GI Sx        | Moderate                             | Moderate                             | Neutral  | Neutral  | Moderate | Neutral                | Neutral                 | Mild    | Moderate | Neutral            | Moderate |
| CHF          | Neutral                              | Neutral                              | Neutral  | Neutral  | Neutral  | Moderate               | Neutral                 | Neutral | Neutral  | Neutral            | Neutral  |
| ASCVD        | Benefit                              | Neutral                              | Possible Benefit   | Neutral  | Neutral  | Neutral                | ?                       | Neutral | Safe     | Neutral            | Neutral  |
| BONE         | Neutral                              | Neutral                              | Neutral  | Neutral  | Neutral  | Moderate Fracture Risk | Neutral                 | Neutral | Neutral  | Neutral            | Neutral  |

- Few adverse events or possible benefits
- Use with caution
- Likelihood of adverse effects
- Uncertain effect

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# PRINCIPLES OF THE AACE/ACE COMPREHENSIVE TYPE 2 DIABETES MANAGEMENT ALGORITHM



1. Lifestyle therapy, including medically supervised weight loss, is key to managing type 2 diabetes.
2. The A1C target must be individualized.
3. Glycemic control targets include fasting and postprandial glucoses.
4. The choice of therapies must be individualized on basis of patient characteristics, impact of net cost to patient, formulary restrictions, personal preferences, etc.
5. Minimizing risk of hypoglycemia is a priority.
6. Minimizing risk of weight gain is a priority.
7. Initial acquisition cost of medications is only a part of the total cost of care which includes monitoring requirements, risk of hypoglycemia, weight gain, safety, etc.
8. This algorithm stratifies choice of therapies based on initial A1C.
9. Combination therapy is usually required and should involve agents with complementary actions.
10. Comprehensive management includes lipid and blood pressure therapies and related comorbidities.
11. Therapy must be evaluated frequently until stable (e.g., every 3 months) and then less often.
12. The therapeutic regimen should be as simple as possible to optimize adherence.
13. This algorithm includes every FDA-approved class of medications for diabetes.