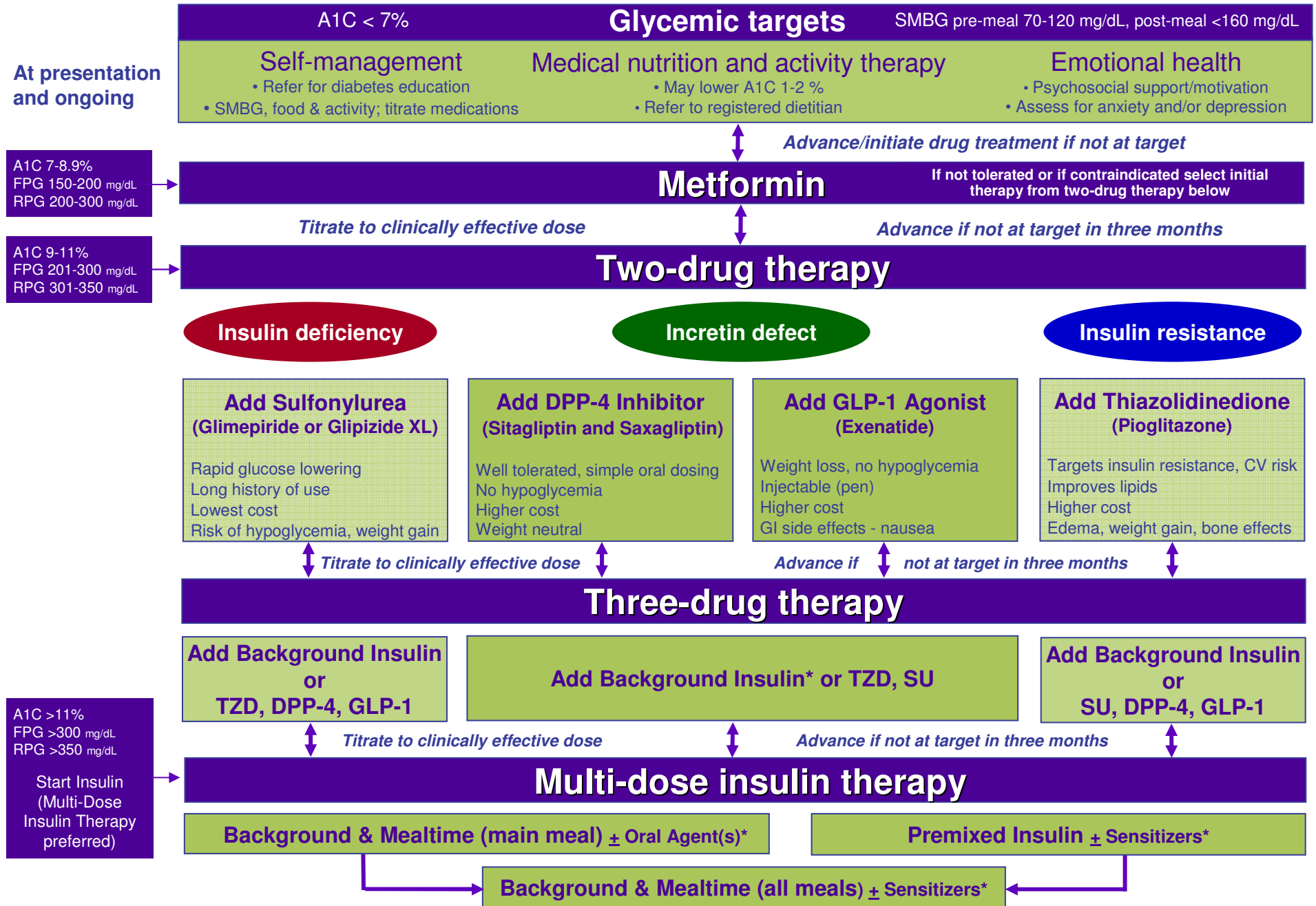


Treatment of Type 2 Diabetes: Glycemic Control



Key to abbreviations

A1C, glycosylated hemoglobin A_{1C}; **CV**, cardiovascular; **DPP-4**, dipeptidyl peptidase-4 inhibitor (sitagliptin); **FPG**, fasting plasma glucose; **GI**, gastrointestinal; **GLP-1** glucagon like peptide-1 receptor agonist (exenatide); **RPG**, random plasma glucose; **SMBG**; self-monitored blood glucose; **SU**, sulfonylurea; **TZD**, thiazolidinedione.

Clinical recommendations

1. Check kidney and liver function prior to initiation of oral medications.
2. Pioglitazone preferred due to possible increased CV risk with rosiglitazone.
3. Long-acting background (basal) insulins detemir and glargine reduce risk of nocturnal hypoglycemia compared to intermediate-acting NPH; some patients may benefit from bid dosing of long-acting insulin.
4. If a clinically stable patient with A1C >11% and consuming excessive sweetened beverages, consider starting oral agents and re-evaluate need for insulin in 1-2 weeks.
5. Pramlintide may be added to mealtime insulin.
6. Background and Mealtime insulin regimen is the most physiological and flexible regimen.
7. Focus on modest weight loss of 5-7% total body weight.
8. Basic nutrition recommendations include elimination of sweetened beverages, eat minimum three meals/day each containing ~three carbohydrate choices (45 g)/meal.
9. Recommend 150 minutes/week of physical activity.
10. Consider referral to psychologist or social worker if persistently elevated A1C.

References

Self-Management, Emotional Health and Nutrition and Activity

Franz MJ et al. *Diabetes Spectrum* 1996; 9:122-127; Peyrot M and Rubin RR. *Diabetes Care* 2007; 30: 2433-2440; Funnell MM et al. *Diabetes Care* 2007; 30: 1630-1637; American Diabetes Association, Clinical Practice Recommendations 2009. *Diabetes Care* 2009; Suppl 1.

Metformin

Bailey CJ and Turner RC. *NEJM*, 1996; 334:574-579; Kirpichnikov D, et al. *Ann Intern Med.* 2002;137:25-33; Bolen S. et al.. *Ann Intern Med.* 2007;147: Issue 6; American Diabetes Association, Clinical Practice Recommendations 2009. *Diabetes Care* 2009; Suppl 1.

Two Drug Therapy

Charbonnel B, et al.. *Diabetes Care.* 2006; 29:2638-43. DeFronzo RA, et al. *Diabetes Care.* 2005; 28:1092-100; Lyseng-Williamson KA. *Drugs* 2007; 67:587-597; Rosenstock J et al. *Clin Ther.* 2006; 28:1556-1568.

Three Drug Therapy

Fonseca V. *Diabetologia.* 2007; 50:1148-55. Heine RJ et al. *Ann Intern Med.* 2005; 143:559-569; Kendall DM, et al. *Diabetes Care.* 2005; 28:1083-91; Zinman B et al. *Ann Intern Med* 2007; 146:477-485; Roberts et al. *Clin Ther.* 2005; 27:1535-1547; Rosenstock J. et al. *Diabetes Care.* 2006 Mar;29(3):554-9; Viswanathan P et al.. *Endocr Pract.* 2007; 13:444-450.

Insulin Therapy

Janka HU, et al. *Diabetes Care.* 2005; 28:254-259; Raskin P et al. *Diabetes Care.* 2005; 28:260-265; Fonseca V. *Insulin;* 2006; 1:51-60; Heise and Pieber. *Diab Obes Metab* 2007; 1-11.