

Supplemental Table. Drug treatment strategies used in model. MET = metformin, GLYB = glyburide. TZD = rosiglitazone. EX = exenatide. SIT = sitagliptin. Sources: References 1 – 3.

Treatment Strategy	Daily Dosage	Distribution Among Treatments**
Glyburide as second-line therapy	Metformin 1000mg twice daily Glyburide 7.5 mg daily Rosiglitazone 4mg twice daily Insulin, NPH, varying doses -- Syringes and swabs	<u>Year 1</u> 85% MET only 15% MET + GLYB <u>Year 7</u> 32% MET only 28% MET + GLYB 15% MET + GLYB + TZD 25% MET + GLYB + Insulin <u>Year 15</u> 9% MET only 11% MET + GLYB 7% MET + GLYB + TZD 73% MET + GLYB + Insulin
Exenatide as second-line therapy	Metformin 1000mg twice daily Exenatide 10 mcg twice daily Rosiglitazone 4mg twice daily Insulin, NPH, varying doses -- Syringes and swabs	<u>Year 1</u> 85% MET only 15% MET + EX <u>Year 7</u> 32% MET only 28% MET + EX 15% MET + EX + TZD 25% MET + TZD + Insulin <u>Year 15</u> 9% MET only 11% MET + EX 7% MET + EX + TZD 73% MET + TZD + Insulin
Sitagliptin as second-line therapy	Metformin 1000mg twice daily Sitagliptin 100mg daily Rosiglitazone 4mg twice daily Insulin, NPH, varying doses -- Syringes and swabs	<u>Year 1</u> 85% MET only 15% MET + SIT <u>Year 7</u> 32% MET only 28% MET + SIT 15% MET + SIT + TZD 25% MET + TZD + Insulin <u>Year 15</u> 9% MET only 11% MET + SIT 7% MET + SIT + TZD 73% MET + TZD + Insulin

**Proportions on each treatment pattern calculated using the following failure rates: Metformin - 15% per year; Glyburide/ sitagliptin/ exenatide – 25% per year; TZD – 40 % first year, TZD– 50 % per year.

Table references

1. UK Prospective Diabetes Study (UKPDS) Group: Effect of intensive blood-glucose control with metformin on complications in overweight patients with type 2 diabetes (UKPDS 34). 1998;352:854-865.
2. Kahn SE, Haffner SM, Heise MA, Herman WH, Holman RR, Jones NP, Kravitz BG, Lachin JM, O'Neill MC, Zinman B, Viberti G and the ASG: Glycemic Durability of Rosiglitazone, Metformin, or Glyburide Monotherapy. *N Engl J Med* 2006;355:2427-2443.
3. : *Red Book: Pharmacy's Fundamental Reference*. Washington, D.C., Thompson Healthcare, (2008).

Supplemental References (continued from article)

26. Pignone M, Earnshaw S, Tice JA and Pletcher MJ: Aspirin, statins, or both drugs for the primary prevention of coronary heart disease events in men: a cost-utility analysis. *Ann Intern Med* 2006;144:326-36.
27. Ganz DA, Kuntz KM, Jacobson GA and Avorn J: Cost-Effectiveness of 3-Hydroxy-3-Methylglutaryl Coenzyme A Reductase Inhibitor Therapy in Older Patients with Myocardial Infarction. *Ann Intern Med* 2000;132:780-787.
28. Sisk JE, Moskowitz AJ, Whang W, Lin JD, Fedson DS, McBean AM, Plouffe JF, Cetron MS and Butler JC: Cost-effectiveness of vaccination against pneumococcal bacteremia among elderly people. *JAMA* 1997;278:1333-1339.
29. Nathan DM, Buse JB, Davidson MB, Ferrannini E, Holman RR, Sherwin R and Zinman B: Medical management of hyperglycaemia in type 2 diabetes mellitus: a consensus algorithm for the initiation and adjustment of therapy : A consensus statement from the American Diabetes Association and the European Association for the Study of Diabetes. *Diabetologia* 2008;52:17-30.
30. Bolen S, Feldman L, Vassy J, Wilson L, Yeh HC, Marinopoulos S, Wiley C, Selvin E, Wilson R, Bass EB and Brancati FL: Systematic review: comparative effectiveness and safety of oral medications for type 2 diabetes mellitus. *Ann Intern Med* 2007;147:386-99.
31. Horvath K, Jeitler K, Berghold A, Ebrahim SH, Gratzner TW, Plank J, Kaiser T, Pieber TR and Siebenhofer A: Long-acting insulin analogues versus NPH insulin (human isophane insulin) for type 2 diabetes mellitus. *Cochrane Database Syst Rev* 2007:CD005613.
32. Castle L and Verbrugge RR (2008). 2008 Drug Trend Report: Predictions. Five Insights that will shape healthcare.
33. Matza LS, Boye KS, Yurgin N, Brewster-Jordan J, Mannix S, Shorr JM and Barber BL: Utilities and disutilities for type 2 diabetes treatment-related attributes. *Qual Life Res* 2007;16:1251-65.
34. Amori RE, Lau J and Pittas AG: Efficacy and safety of incretin therapy in type 2 diabetes: systematic review and meta-analysis. *JAMA* 2007;298:194-206.
35. *Red Book: Pharmacy's Fundamental Reference*. Washington, D.C., Thompson Healthcare, (2008)
36. Lundkvist J, Berne C, Bolinder B and Jonsson L: The economic and quality of life impact of hypoglycemia. *Eur J Health Econ* 2005;6:197-202.