

Philadelphia College of Osteopathic Medicine

From the Selected Works of Sara Wilson Reece

August, 2016

Medication Management in Diverse Populations

Sara Wilson Reece

Julie Sease, *Presbyterian College*



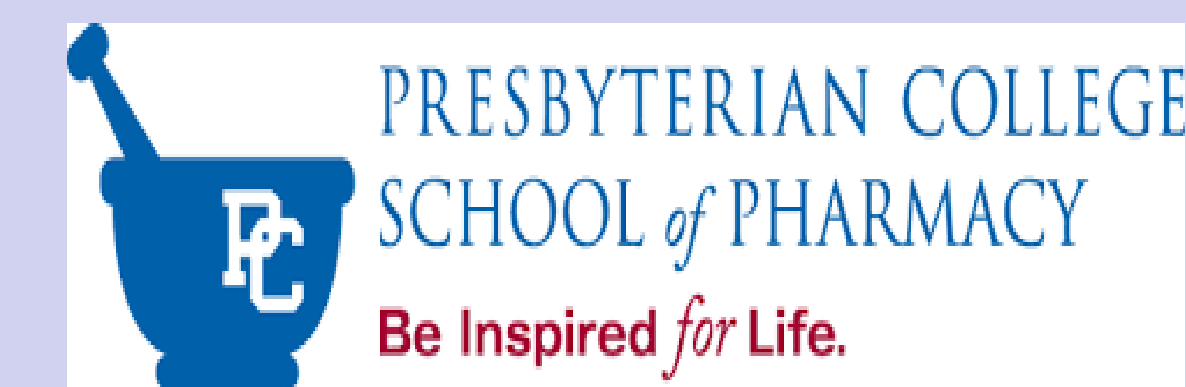
Available at: https://works.bepress.com/sara_reece/16/

Medication Management in Diverse Patient Populations



GEORGIA CAMPUS
PHILADELPHIA COLLEGE OF
OSTEOPATHIC MEDICINE

Sara (Mandy) Reece, PharmD, CDE, BC-ADM, Vice Chair and Associate Professor, Pharmacy Practice Department, Georgia Campus Philadelphia College of Osteopathic Medicine, School of Pharmacy; Julie Sease, PharmD, FCCP, BCPS, CDE, BCACP, Associate Dean for Academic Affairs and Professor of Pharmacy Practice, Presbyterian College School of Pharmacy



Patient: JD

ID: JD, a 58 year old Hispanic male. Patient expresses strong desire to avoid insulin.
 PMH: T2DM (x 5 years)
 HTN (x 15 years)
 Obesity (x 15 years)
 Dyslipidemia (x 15 years)
 Current Meds: Metformin 1000 mg BID
 Fosinopril 10 mg daily
 Rosuvastatin 5 mg daily
 Aspirin 81 mg daily
 Vitals: BP: 146/88mmHg HR: 76 bpm
 Ht: 5'6" Wt: 190 lbs BMI: 30.7
 Labs: $\frac{140}{4.2} \mid \frac{110}{49} \mid \frac{14}{1.1} < 210$ A1c: 9%
 TC: 210 TG: 250 HDL: 25 LDL: 135
 eGFR: 75.4 ml/min
 ASCVD 10-Year Risk: 32.9%

Medication Management Plan:
 1. Cardiovascular Risk Reduction:
 -Increase fosinopril to 20 mg daily
 -Increase rosuvastatin to 10 mg daily
 2. Hyperglycemia Management:
 -Start GLP-1 agonist
 3. Health Maintenance: Immunizations as indicated

Reasoning for GLP-1 agonist:
 a. Highly efficacious; patient's A1c currently 9% indicating need for significant glucose reduction
 b. Weight loss; patient's BMI currently 30.7 indicating need for weight loss and avoidance of weight gain
 c. GLP-1 agonists appear cardiovascular risk neutral
 d. Concerns with GLP-1 agonist therapy: cost, nausea/vomiting, pancreatitis-risk
 e. Other options include:
 -Insulin: most effective A1c reducer, but potential for weight gain and hypoglycemia; patient desires to avoid
 -TZD: also highly effective A1c reducer, but potential for edema
 -Sulfonylurea: also highly effective A1c reducer, but potential for weight gain and hypoglycemia

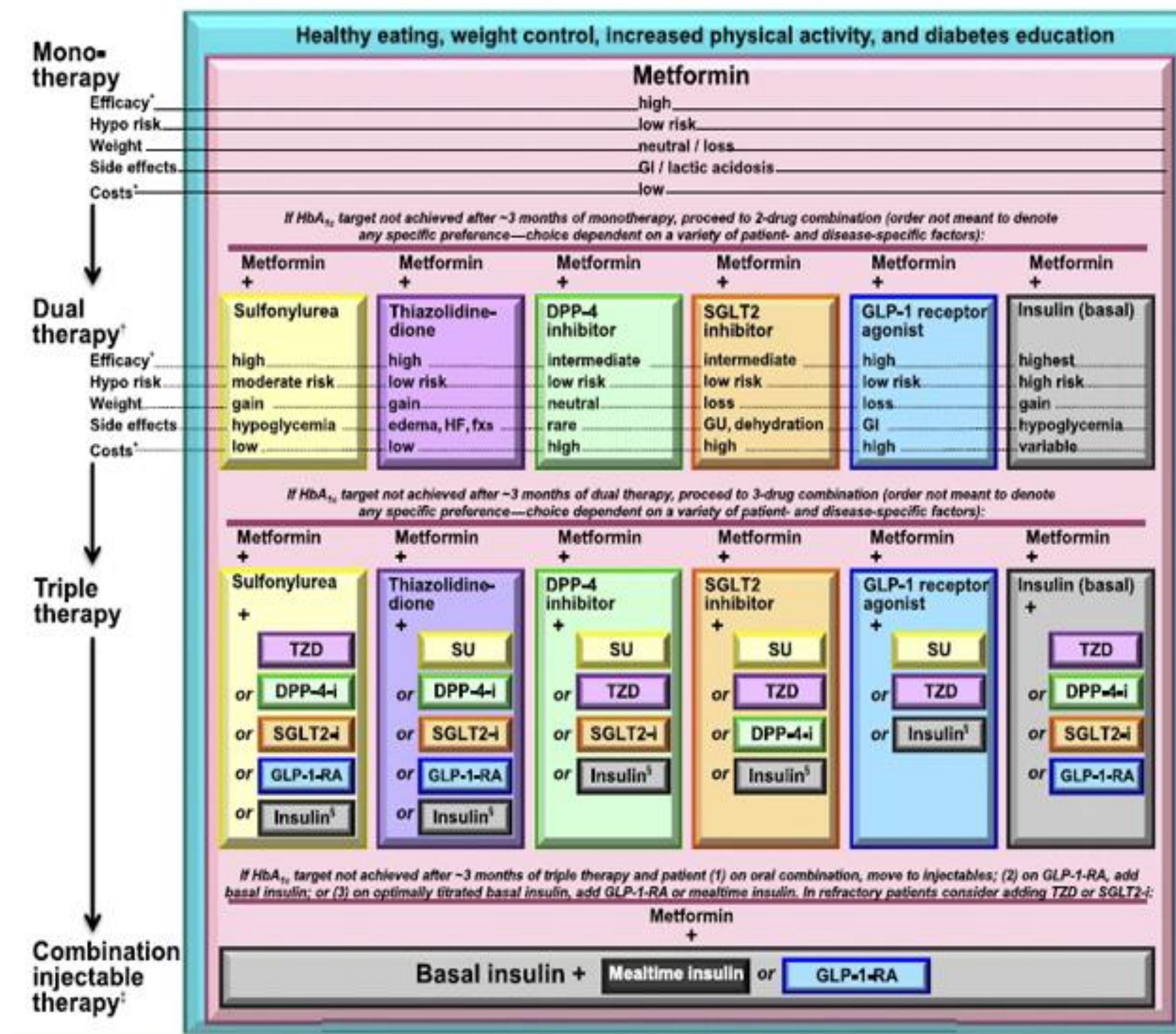


Patient: RS

ID: RS, a 38 year old Caucasian female
 PMH: T2DM (x 1 year)
 HTN (x 4 years)
 Obesity (x 10 years)
 Current Meds: Metformin 1000 mg BID
 Glipizide 5 mg BID prior to meals
 Candesartan 32 mg daily
 Vitals: BP: 142/90mmHg HR: 68 bpm
 Ht: 5'4" Wt: 210 lbs BMI: 36
 Labs: $\frac{138}{4.8} \mid \frac{112}{46} \mid \frac{10}{0.9} < 168$ A1c: 7.5%
 TC: 180 TG: 190 HDL: 45 LDL: 97
 eGFR: 95 ml/min
 ASCVD 10-Year Risk: 2.2%

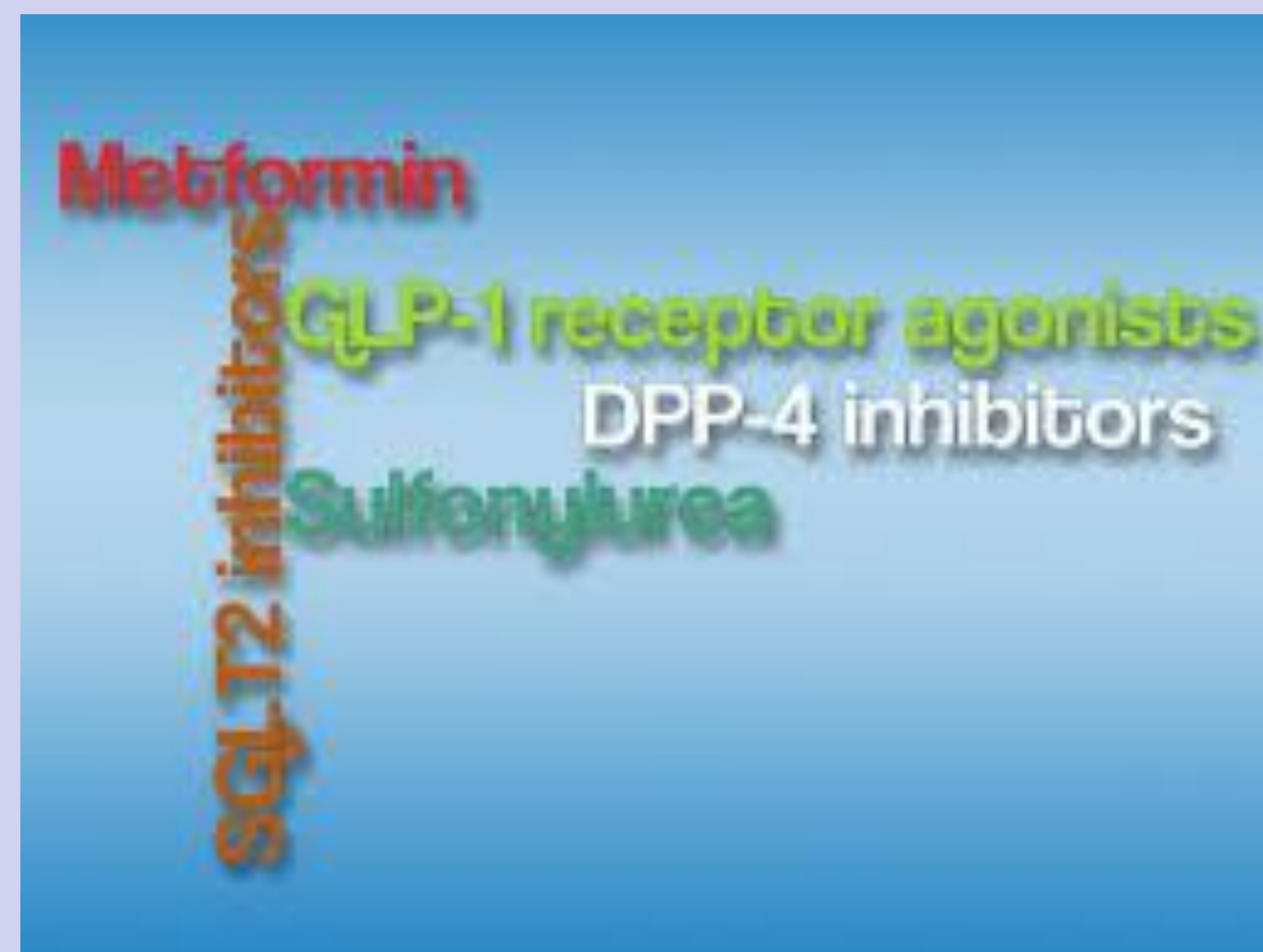
Medication Management Plan:
 1. Hyperglycemia Management:
 -Start SGLT-2 inhibitor
 2. Health Maintenance: Immunizations as indicated

Reasoning for SGLT-2 inhibitor:
 a. BP reduction; patient's BP slightly above goal at 142/90 mmHg
 b. Weight loss; patient's BMI 36 indicating need for weight loss and avoidance of weight gain
 c. Concerns with SGLT-2 inhibitor: cost, genitourinary infection, dehydration
 d. Other options include:
 -TZD: highly effective A1c reducer, but potential for edema
 -DPP-4 inhibitor: similar A1c reduction and well tolerated, but weight neutral
 -GLP-1 agonist: greater A1c reduction potential and weight loss potential, but injectable. Option for the future.
 -Insulin: greatest A1c reduction potential but injectable, weight gain likely and hypoglycemia a risk. Ultimate option for the future.



Medscape

Source: American Diabetes Association



Patient: EG

ID: EG, a 68 year old AA male retired
 PMH: T2DM (x 15 years)
 BPH (x 4 years)
 Asthma (x 43 years)
 HTN (x 23 years)
 Stage I CKD (x 3 years)
 Hyperlipidemia (x 10 years)
 Obesity (x 12 years)
 Current Meds: Metformin 1000 mg BID
 Insulin lispro U-100 30 units AC meals
 Insulin glargine U-100 95 units QHS
 Tamsulosin 0.4 mg daily
 Albuterol sulfate HFA 2 puffs q4-6 hrs
 Flovent HFA 110mcg 1 puff BID
 Diltiazem CD 240mg daily
 Rosuvastatin 20mg daily

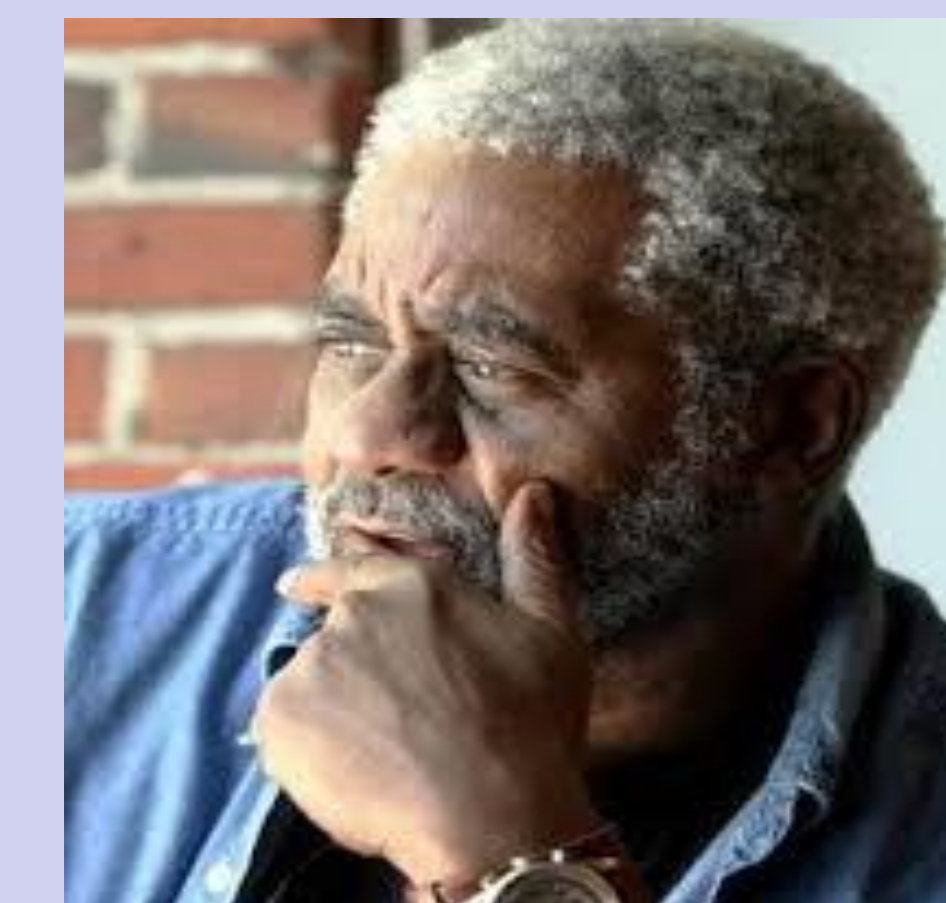
Vitals: BP: 137/89mmHg HR: 70 bpm
 Ht: 5'10" Wt: 300 lbs. BMI: 43.14

Labs: $\frac{141}{4.4} \mid \frac{109}{24} \mid \frac{12}{1.0} < 210$ A1c: 9.5%

TC: 205 TG: 255 HDL: 39 LDL: 115
 eGFR: 98.35 ml/min
 ASCVD 10-Year Risk: 41.1%

Medication Management Plan:
 1. Hyperglycemia Management:
 - Stop current insulin therapies
 - Start concentrated basal and bolus insulin
 2. Obesity:
 - Refer to Bariatric Program
 3. Health Maintenance: Immunizations as indicated

Reasoning for Concentrated Insulin:
 a. Currently on larger doses of basal and bolus insulin
 b. Efficacious: patient's A1c currently 9.5% indicating need for significant glucose reduction
 c. Concerns with concentrated insulin: cost, weight gain, hypoglycemia
 e. Other options include:
 -Increase dose of current insulin therapies
 -Additionally, start Biguanide: highly effective A1c reducer and weight loss potential but will need to monitor eGFR



Patient: MA

ID: MA, a 34 year old Hispanic female recently lost job
 PHM: T2DM (x 2 years)
 PCOS (x 16 years)
 Hypertension (x 4 years)
 Current Meds: Metformin 1000 mg BID
 Lisinopril 10mg daily
 Vitals: BP :138/88 mmHg HR: 70 bpm
 Ht: 5'5" Wt: 160 lbs. BMI: 26.6

Labs: $\frac{142}{4.7} \mid \frac{109}{22} \mid \frac{10}{1.1} < 180$ A1c: 8%

TC: 175 TG: 225 HDL: 50 LDL: 80
 eGFR: 72 ml/min
 ASCVD 10-Year Risk: 1.6%

Medication Management Plan:
 1. Hyperglycemia Management:
 - Start Sulfonylurea
 2. Health Maintenance: Immunizations as indicated

Reasoning for Sulfonylureas:
 a. Efficacious: patient's A1c currently 8% indicating need for moderate glucose reduction
 b. Inexpensive: patient's recent job loss
 c. Requires ability of pancreas to produce insulin : 2 year history of diabetes
 d. Concerns with Sulfonylureas: hypoglycemia and weight gain
 e. Other options include:
 -TZD: highly effective A1c reducer and inexpensive but potential for weight gain

