



RHP Insight Education Session

2023 Curriculum

Nick Ulmer, MD CPC FAAFP

SRHS Value-Based Education Session for MGC Primary Care



Value-Based Arrangement Education

The following is required reading as introduction to this educational session. Please pause the slides as you need to allow time to read this information

Value-Based Arrangement Education

This presentation follows our prior correspondence and meetings regarding the new value-based incentive component of the 2023 SRHS Primary Care Compensation Model. The Value-Based Incentive is detailed in the 2023 Primary Care Physician Employment agreement (Exhibit A-6).

Spartanburg Regional Healthcare System has created a Value-Based Enterprise with employed primary care physicians. Through the Value-Based Enterprise, the parties will collaborate to achieve goals for patients in the district service area. These goals include coordinating and managing care, improving the quality of care, and transition in healthcare delivery and payment to mechanisms based on the quality of care and control of cost of care.

The Value-Based Enterprise will achieve these goals through the Value-Based Activities described in the Value-Based Incentive portion of the Physician Employment Agreement. These activities include successful completion of diagnosis code training and accurate diagnosis code utilization as measured through educational chart reviews and other activities.

Value-Based Arrangement Education (cont.)

Appropriate, accurate, and specific diagnosis code utilization is a core component of medical documentation and care coordination. Proper and accurate utilization of diagnosis codes strengthen the medical documentation and ensures the patient's conditions are fully memorialized in the medical record. These activities enhance both quality of care and efforts to coordinate and manage care of patients for the District. This training module is intended to provide additional training background and resources for accurate diagnosis code utilization.

The Value-Based Enterprise reflects a collaborative process, created by regulatory agencies, MGC, and in conjunction with RHP and the Districts Compliance Department, will oversee, monitor and administer the Value-Based Enterprise's activities. Exhibit A-6 of your Physician Employment Agreement describes the governance and operation of the value-based efforts.

Value-Based Arrangement Education (cont.)

As SRHS moves into value-based clinical arrangements, the importance of documentation accuracy cannot be understated. Previous provider educational chart reviews have shown opportunities to better align clinical thought-work with chronic condition documentation of medical necessity in our encounters. The intent of this education is to help educate providers to be more “clinically correct” in the written expression of our work with the patients we care for.



RHP Insight Education Session

2023 Curriculum

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The Diabetes Mellitus Primer



Objectives

Know the Stars quality measures associated with Diabetes

Know a best practice way to optimize quality measure outcomes for Diabetes

Be able to state the basic medication management options in Diabetes

Diabetes: Clinical Statistics^{1,2,3}

In the 2022 National Diabetes Statistics Report showed that diabetes prevalence was higher with those affected by poverty

Diabetes was the nation's eighth leading cause of death in 2020

Diabetes is the leading cause of kidney failure, nontraumatic lower-limb amputations and blindness among adults. Diabetics are 2x more likely to have heart disease or a stroke.

Currently ~38 million adults are estimated to have diabetes, 8.5 million of whom are undiagnosed

More than 95% of people with diabetes have type 2 diabetes. This type of diabetes is largely the result of obesity

Where else to focus our efforts? 2023 Triple Weighted

Controlling BP (<140/<90)	3
Diabetes Care – blood sugar control (A1c < 9)*	3
Medication Adherence	
For Diabetes (meds other than insulin)	3
For Hypertension (RAS)	3
For Lipids (Statins)	3

*varies with ACO or Stars

2023 Stars/ACO Quality Metrics

Measure	Program		Star Category & Weight		Thresholds 09/28/2022	
	Stars	ACO	Part C or D?	Weight	4 Star	5 Star
Care for Older Adults - Medication Review	✓		C	1	82%	93%
Care for Older Adults - Pain Assessment	✓		C	1	85%	94%
Medication Adherence for Diabetes	✓		D	3	88%	92%
Medication Adherence for Hypertension (RAS)	✓		D	3	89%	91%
Medication Adherence for Cholesterol (Statins)	✓		D	3	88%	92%
TRC: Medication Reconciliation Post-Discharge	✓		C	0.5	56%	76%
TRC: Patient Engagement After Inpatient Discharge	✓		C	0.5	56%	76%
Follow-Up After ED Visit for MCC	✓		C	1	68%	78%
Plan All-Cause Readmissions	✓		C	1	11%	8%
Osteoporosis Management in Women w/ Fracture	✓		C	1	55%	73%
Statin Use in Persons with Diabetes	✓		D	1	86%	90%
Diabetes Care - Kidney Disease Monitoring	✓		C	1	95%	97%
Diabetes Care - Eye Exam	✓		C	1	71%	79%
Diabetes Care - Blood Sugar Controlled	✓	✓	C	3	75%	83%
Breast Cancer Screening	✓	✓	C	1	70%	77%
Colorectal Cancer Screening	✓	✓	C	1	71%	79%
Controlling Blood Pressure	✓	✓	C	3	73%	80%
Statin Therapy for Cardiovascular Disease	✓	✓	C	1	85%	89%
Reducing the Risk of Falling		✓				
Depression Screening		✓				
Influenza Immunization		✓				
Tobacco Screening and Cessation Intervention		✓				

Diabetes Care – Blood Sugar Control

The percentage of diabetic enrollees 18-75 (denominator) whose most recent HbA1c level is greater than 9%, or who were not tested during the measurement year (numerator).

“Reverse measure”: To calculate this measure, subtract the submitted rate from 100. So, here higher is better.

Poor control of DM patients leads to higher complications (renal, ocular, etc.)

DM that is “out of control” can be re-assessed before 90d if so.

4 Star $\geq 75\%$ to $< 83\%$; 5 Star is $\geq 83\%$ (% patients w A1c < 9)

[25%/17% are 4/5 Star % for patients > 9]

A1c ADA Recommendations 2023⁴

A1C < 7% for non-pregnant adults

~~A1C < 6.5% in select patients without risk for hypoglycemic events (old guideline)~~

A1C < 8% in elderly patients at risk for hypoglycemia, or have limited life expectancy due to other severe comorbidities

Get A1C q6m in patients who are meeting goals, q3m with therapy changed or if not

Consider Point of Care (POC) A1C testing for more timely treatment changes

DM that is “out of control” can be re-assessed before 90d if so. Use right code:

E11.65 (DM type II w hyperglycemia)

E10.65 (DM type I w hyperglycemia)

E08.65 (DM from underlying condition w hyperglycemia)

Consider RD/coaching and address dietary, lifestyle and medication adherence each visit

Where else to focus our efforts? 2023 Triple Weighted

Controlling BP (<140/<90) **3**

Diabetes Care – blood sugar control (A1c < 9)* **3**

Medication Adherence

For Diabetes (meds other than insulin) **3**

For Hypertension (RAS) **3**

For Lipids (Statins) **3**

*varies with ACO or Stars

Medication Adherence Defined

A patient taking their medications (getting the med filled on time) over the course of the year 80% of the time (292 days if on med 01/01/2022)

If new Rx during the year, then it is 80% of the time left in the year

90d Rx have higher fill rates and more likely to pass measure

Only requires 3 refills in the year rather than 11 with 30d supply

Allows for more wiggle room on late days at each refill

Exclusions: hospice, ESRD

Medication Adherence ... Problem?⁵

Non-adherence to maintenance medications for chronic conditions has been reported to be as high as 50% in some populations

Nearly 80% of Americans > 50 years of age have one or more chronic conditions

All are guilty....

Non-adherence was common across all demographic, socioeconomic, regional and clinical subpopulations

Top 3 diseases: DM, HTN, and Hyperlipidemia (think “Stars”)

What counts in DM Med Adherence?

Certain medication classes (NOT insulin) are tracked

Biguanides, sulfonylureas, Di-Peptidyl Peptidase (DPP)-IV Inhibitors, Glucagon-like peptide-1 (GLP-1) receptor agonists, sodium glucose cotransporter 2 (SGLT2) inhibitors, thiazolidinediones, and meglitinides.

2 prescription claims in the calendar year for any of the above medications will put the patient in the adherence measure

4-Star is having 88+% adherent, 5-Star 92+%

Exclusions: if on insulin, if in hospice or with ESRD

Medication Non-Adherence Reasons

Lack of understanding of benefit, of side effects.

ABC Project, 2012 (AlGhurar, et al., 2012) – this is #1 reason for non-adherence

Some diseases have “hidden” symptoms (HTN)

News media can inflame/pick and choose the information to share

Cost of meds, weighing of social determinants (food, living expenses, etc.)

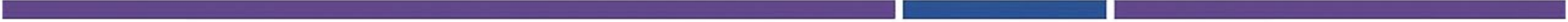
Complexity of regimen (qd vs QID)

Transportation to get meds or to office visits

Forgetfulness impacts meds that are different from the rest (evening/bedtime, after meal/before meal)

How to “fix” Med Adherence

- 90d fills vs 30d
- Simplify regiment (qd vs QID)
- Pill dispensary (family member to fill it)
- Connect med taking to daily activity (brush teeth, etc.)
- Educate on the disease and the need for the meds
- Focus on care transition ball drops
- Repeat offender list management (early and often)



Where to focus our efforts? 2023 Single Weighted Stars

Diabetic Eye Exams

Statin Use in Persons with Diabetes

Diabetic Kidney Disease Monitoring (new in 2023)

Where to focus our efforts? 2023 Single Weighted

Diabetic Eye Exams

Statin Use in Persons with Diabetes

Diabetic Kidney Disease Monitoring (new in 2023)

Diabetes Dilated Retinal Eye Exam

Percentage of patients 18-75 years of age with diabetes with a visit during the measurement period.

The percentage of Diabetic patients aged 18-75 with/without a diagnosis of retinopathy who had a retinal or dilated eye exam by an eye care professional during the measurement period (or 12 months prior) **4-Star is 71%, 5-Star is 79%**

NOTE: Can do via telehealth (coded with GQ, GT, 95, or POS 02 modifiers)

In office retinal scanners, mobile “DRE” outreaches

Exclusions: Active ***hospice*** (G9714) or ***palliative care*** (G9994) OR Patients 66 years of age and older with at least one claim/encounter for ***frailty*** AND a dispensed ***medication for dementia*** during the measurement period (G2106) **OR** Patient aged 66 or older in Institutional Special Needs Plans (SNP) or LTC ***facility >90 consecutive days*** (G2105) **OR** with diagnosis for frailty AND either one acute inpatient encounter with a diagnosis of advanced illness **OR** two outpatient, observation, ED or nonacute inpatient encounters (G2107)

Where to focus our efforts? 2023 Single Weighted

Diabetic Eye Exams

Statin Use in Persons with Diabetes

Diabetic Kidney Disease Monitoring (new in 2023)

Statin USE in Persons with Diabetes

- Not **adherence** – this is **USE**
- Adults aged 40-75 years with a diagnosis of diabetes
 - Two Rx fills for a hypoglycemic agent during the year puts you IN this measure (insulin IS counted in this, but not a stand-alone SGLT2)
 - You pass if you fill ONE Rx of a statin during the year (not 80%)
- Excluded if in hospice or ESRD or myopathy/myositis/rhabdo claim in calendar year
- 4 Star: 86% 5 Star: 90%



Where to focus our efforts? 2023 Single Weighted

Diabetic Eye Exams

Statin Use in Persons with Diabetes

Diabetic Kidney Disease Monitoring (new in 2023)

Diabetes Kidney Disease Monitoring

- Former Comprehensive Diabetes Care measure is retired
- Replaced by Kidney Health Evaluation for Patients w DM (“KED”)
 - If 18-85 at end of the year with DM in current or prior year, or medication for blood sugar control filled
 - Need BOTH done EACH year
 - uACR is the urine albumin-creatinine ratio
 - eGFR is the estimated glomerular filtration rate
 - Excluded if in hospice, palliative care, or ESRD. If > 66 with long-term institutional facility and/or frailty and advanced illness. 81 or older w frailty.
- 4 Star: 95% 5 Star: 97%

Manage w DASH Eating Plan¹: Lifestyle Modifications

459 adults, some with/without confirmed HTN. Compared 3 diets, each containing 3,000 mg of sodium/day

- (1) Typical American diet. (2) Typical American diet plus more fruits/vegetables, (3) DASH diet
 - 8 wk. study. None of the diets were vegetarian or used specialty foods. After 2 wks, participants who added fruits and vegetables to a typical American diet or those on the DASH diet had lower blood pressure (DASH diet had the greatest effect). In f/u reports, DASH diet also lowered LDL cholesterol levels.

Subsequent studies confirmed, added benefit with in-office counseling²

- DASH, Dash-Sodium, and PREMIER

¹N Engl J Med 1997; 336:1117-1124

²Cleveland Clinic Journal of Medicine V71, No.9, 09/2004 pp. 645-753

Chobanian AV, et al. Hypertension. 2003; 42: 1206-1252

DASH overview

Focus on eating fruits, vegetables, and whole grains

Prefer intake of fat-free or low-fat dairy products, fish, poultry, beans, nuts, and vegetable oils

Limits on foods that are high in saturated fatty acids (like fatty meats, full dairy products, and tropical oils like coconut, palm kernel and palm oils)

Limits on sugar-sweetened beverages and snacks

BP Benefit seen within two weeks in initial trial

Lifestyle Modifications: Physical Activity Key Guidelines

Adults

- Move more and sit less throughout the day. Some physical activity is better than none.
- For substantial health benefits, do at least 2.5h- 5h/week of moderate-intensity, or 75 min – 2.5h/week of vigorous-intensity aerobic physical activity (or an equivalent combination of both)
- Do muscle-strengthening activities of moderate or greater intensity and that involve all major muscle groups on 2 or more days a week

Older Adults

- The key guidelines for adults also apply to older adults.
- In addition, older adults should do multicomponent physical activity that includes balance training
- If unable to do the recommended moderate-intensity aerobic activity, then be as physically active as their abilities and conditions allow.

Older Adults with Chronic Conditions/Disabilities

- If unable to meet the above key guidelines, they should engage in regular physical activity according to their abilities and should avoid inactivity.

Lifestyle Modifications: Physical Activity Key Guidelines

Adults

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Behavior Change: The Rx for Sustainability

Adherence to lifestyle modifications is challenging

Providers need to proactively implement behavior-change strategies to promote adherence

Strategies need to be patient-related

Patient centered to get their buy-in. Need to have trust

Empathy with patient situation and listen actively

Encourage food intake and physical activity log. Encourage the partnership

Strategies need to be program-related

Simple, convenient, enjoyable (shared), realistic and attainable, home support

Lead by example, share

Medication Management

Metformin: First line, often used in conjunction with others

500mg once or twice daily, titrate weekly to 1000mg twice daily

eGFR 45-60 ml/min: monitor kidney function closely

eGFR 30-45: Max dose 500mg twice daily, use caution initiating new therapy

eGFR <30: use is contraindicated

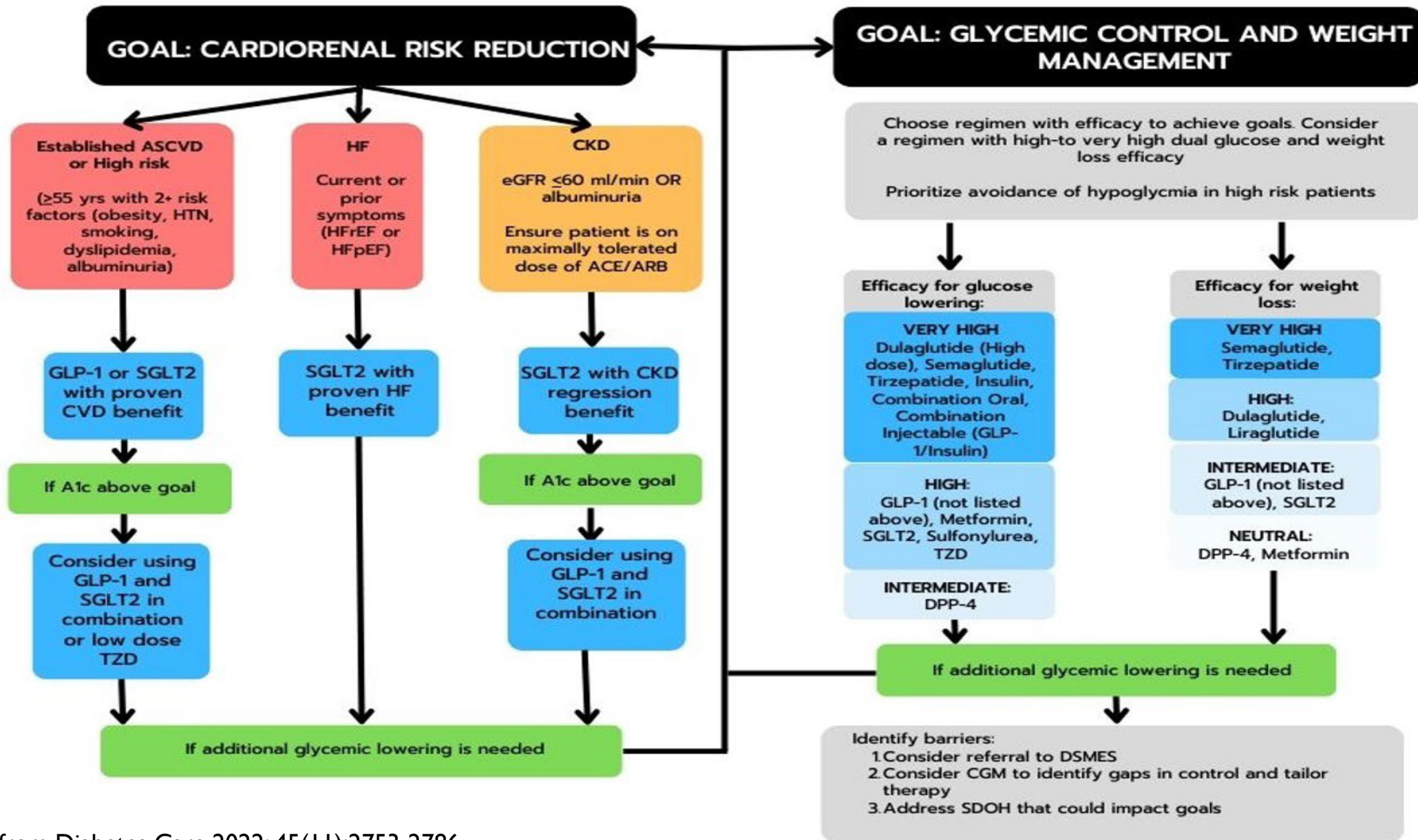
Adverse effects: Diarrhea, gas/bloating, nausea/vomiting, reflux

Pearls

Using extended-release product can lower GI adverse effects, but does not decrease bloating/reflux. Take with food to minimize.

Monitor B12 as can cause deficiency

Medications for Type 2 Diabetes



GLP-1 Receptor Agonists

Product	Dosing	eGFR Dose Adjustment
Exenatide (Byetta®)	5 mcg BID given 1 hour before meal, may titrate to 10 mcg BID after 4 weeks (Max dose 20 mcg/day)	CrCl <30 ml/min: Do not use
Exenatide ER (Bydureon®)	2mg once weekly (no titration)	eGFR <45 ml/min: Do not use
Dulaglutide (Trulicity®)	0.75mg weekly x 4-8 weeks, may increase dose no more often than every 4 weeks (Max dose 4.5mg)	none
Liraglutide (Victoza®)	0.6 mg daily x 1 week then increase to 1.2 mg (minimally effective dose). May increase up to 1.8mg after 1 week	none
Semaglutide (Ozempic®)	0.25 mg x 4 weeks, then increase to 0.5 mg weekly (minimally effective dose). May increase to next pen strength no more often than every 4 weeks (Max dose 2 mg)	none
Semaglutide (Rybelsus®)	3 mg daily x 4 weeks, then increase to 7mg (minimally effective dose). May increase to 14mg daily after 30 days (Max dose 14mg daily)	none
Tirzepatide (Mounjaro®) <small>(GLP-1/GIP agonist, CV trials in progress)</small>	2.5 mg weekly x 4 weeks, then increase to 5mg weekly (minimally effective dose). May increase in 2.5mg/week increments every 4 weeks to max 15mg/week.	none

Adverse Effects:

- Nausea, vomiting, diarrhea
- black box warning against use in patients with family history of medullary thyroid cancer or multiple endocrine neoplasia-2

Pearls:

- Eating smaller meals with lower fat content (avoid greasy foods) increases GI tolerability
- Be sure to optimize dosing beyond starting doses after 4 weeks. Continue to increase dose every 4 weeks if BG remain above goals
- May require lower doses of insulin to avoid hypoglycemia
- Discontinue if pancreatitis is suspected
- Avoid use with DPP-4 (no added glucose benefit with increased cost)

***Bolded** products have proven CVD benefit

SGLT-2 Receptor Agonists

Product	Dosing	eGFR Dose Adjustment	Additional Benefits in Co-morbidities
Canagliflozin (Invokana®)	100mg daily 300mg daily	eGFR 45-60 ml/min: 100mg/d eGFR <45 ml/min + >300 mg/d urine albumin: 100mg/d eGFR <45 ml/min + <300 mg/d urine albumin: do not use	<ul style="list-style-type: none"> Heart Failure Progression of CKD Cardiovascular endpoints
Dapagliflozin (Farxiga®)	5mg daily 10mg daily	eGFR 25-45 ml/min: recommend against use for DM, however safe to continue for diabetic kidney disease or HF	<ul style="list-style-type: none"> Heart Failure Progression of CKD
Empagliflozin (Jardiance®)	10mg daily 25mg daily	Discontinue if eGFR <30 ml/min (safely used in HF in eGFR>20)	<ul style="list-style-type: none"> Heart Failure Progression of CKD Cardiovascular endpoints
Ertugliflozin (Steglatro®)	5mg daily 15mg daily	Discontinue if eGFR <60 ml/min	<ul style="list-style-type: none"> Heart Failure

Adverse Effects:

- Genital mycotic infections, urinary tract infections, hypotension, volume depletion

Pearls:

- Encourage appropriate hygiene and hydration to minimize adverse effects
- May need dose reduction in other diuretic therapies

DPP-4 Inhibitors

Product	Dosing	eGFR Dose Adjustment
Alogliptin (Nesina[®])	25mg daily	CrCl ≥30-60: 12.5mg daily CrCl <30: 6.25mg daily
Linagliptin (Tradjenta[®])	5mg daily	None
Saxagliptin (Onglyza[®])	5mg daily	eGFR <45: 2.5mg daily
Sitagliptin (Januvia[®])	100mg daily	eGFR ≥30-45: 50mg daily eGFR <30: 25mg daily

Adverse Effects:

- Nasopharyngitis, pancreatitis (rare)

Pearls:

- Starting at max dose is recommended (titration not necessary)
- **Avoid use with GLP-1 agonist (no added glucose control at increased cost)**
- Saxagliptin associated with increased hospitalizations for HF in patients with CV disease or CV risk factors
- Less A1c lowering and no added CV or renal benefit seen with other classes

Insulin Regimen

- “Fix Fastings First”
 - Begin with Basal/long-acting insulin
 - Lantus (Basaglar), Levemir, Toujeo, Tresiba
 - Dosing options:
 - 0.1-0.2 units/kg/day OR 10 units daily
 - Titrations: increase 2 units every 3 days until fasting BG at goal (90-130)
 - Consider adding meal-time insulin when dose is ~0.5 units/kg
- Add Meal-time/rapid-acting insulin if goals not met
 - Novolog (insulin aspart), Humalog, Lyumjev, Ademelog
 - Dosing options:
 - Initiate 4-5 units before largest meal of the day
 - Titrate by 1-2 units as needed to goal post-prandial BG (<180)
 - Further intensify by adding to each meal if needed

Basics of Insulin Use

Low-cost considerations:

NPH-intermediate acting (duration ~8-12 hours)

Dosed twice daily

Titrate morning dose based on pre-dinner BG (goal <140)

Titrate evening dose based on fasting BG (goal 90-130)

Regular-short acting (duration 1-3 hours)

Dosed ~15-30 minutes before meals

Titrate dose based on post-prandial BG (goal <180)

Mixed 70/30

70% of dose is NPH, 30% is Regular

Must be given before meals ~8 hours apart (breakfast & dinner)

Coding the Disease state: Diabetes

- 57% of diabetics have systemic complications¹
 - 43% none
 - 33% one
 - 24% two or more
- Document the Diabetes type
 - DM type I **E10.~~**
 - DM type II **E11.~~**
 - DM drug or chemical induced **E09.~~**
 - DM due to underlying condition **E08.~~**
- State the control status: hypo-/hyperglycemia, not “uncontrolled” or “unspecified”
- Complications: nerve, eye, GI, renal, etc.
- Treatment with insulin (Z79.4) – HCC 19

¹The State of Diabetes Complications in America, Amer. Assoc. Clinical Endocrinologists, 4/2007

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www.ICD10data.com

¹The State of Diabetes Complications in America, Amer. Assoc. Clinical Endocrinologists, 4/2007

Diabetes HCC Score

Diabetes with acute complication	0.302
Diabetes with chronic complication	0.302
Diabetes with no complication	0.105
<i>43% of the time</i>	
• “Impaired glucose tolerance” w A1c 6.7	0.000

Diabetes HCC Score

Diabetes with acute complication

Diabetic Hyperosmolar Hyperglycemic state (HHS)

Diabetic Ketoacidosis (DKA)

Hypoglycemia...? Hyperglycemia? YES! But only if severe and only if symptomatic. I would use this rarely.

BS over 200 with symptoms (AMS, dehydration, ED or acute hospitalization)

Symptomatic hypoglycemia < 70 (coma, marked symptoms, ED, hospitalization)



Diabetes HCC Score

Diabetes with chronic complication

Every major body system can be affected

Diabetes HCC Score

Diabetes with chronic complication

Diabetic peripheral angiopathy (DPA) w or w/o gangrene. Linked to peripheral vascular/arterial disease

Cramps, leg pain, reduced hair growth, cyanosis to extremities, thick/discolored toenails, chronic wounds/slow to heal wounds

Diabetic foot exam to assess decreased pulses.

Test: abnormal ABI/doppler

Treat: A1c optimization, Lipid mgmt, HTN control, foot care

Peripheral arterial/vascular disease → DPA linked

Diabetes HCC Score

Diabetes with chronic complication

Diabetic peripheral angiopathy (DPA) w or w/o gangrene

Diabetic Neuropathy

Microvascular disease → nerve ischemia, injury, death. Sensory deficits and pain

Need history with diabetic foot exam to assess neuropathy

Tests EMG and NCV

Treat: glycemic control, foot care and meds for symptom relief

Diabetes HCC Score

Diabetes with chronic complication

Diabetic peripheral angiopathy (DPA) w or w/o gangrene

Diabetic Neuropathy

Diabetic Autonomic Neuropathy

GI, bladder dysfunction, genital organs, CV system

Myriad of symptoms

Treatment starts with diabetic control

Diabetes HCC Score

Diabetes with chronic complication

Diabetic peripheral angiopathy (DPA) w or w/o gangrene

Diabetic Neuropathy

Diabetic Autonomic Neuropathy

Diabetic cardiomyopathy

Results from epicardial atherosclerosis, HTN, metabolic disturbances. LVH is evident by Echo and progression to HF can be seen. Usually "part of the comorbid picture". ??use??

Diabetes HCC Score

Diabetes with chronic complication

Diabetic peripheral angiopathy (DPA) w or w/o gangrene

Diabetic Neuropathy

Diabetic Autonomic Neuropathy

Diabetic cardiomyopathy

Diabetic hyperlipidemia (“other specified complication”)

DM is a major risk factor for heart disease .T2DM without CAD has the same risk of MI as patients with known CAD¹. *Diabetic dyslipidemia* is characterized as a patient with elevated LDL, and elevated triglycerides with low HDL. Coders are told these are “linked” unless the PCP says they are not (pure hypercholesterolemia, for example). Goal: A1c <9. Clinical decision. ??Use??

¹ <https://www.frontiersin.org/articles/10.3389/fcvm.2021.644189/full> (02.2021)

Diabetes HCC Score

Diabetes with chronic complication

Diabetic peripheral angiopathy (DPA) w or w/o gangrene

Diabetic Neuropathy

Diabetic Autonomic Neuropathy

Diabetic cardiomyopathy

Diabetic hyperlipidemia

Diabetic Nephropathy → chronic kidney disease

Albumin(mg/L) to Creatinine (mg/L) ratio is measure. < 30 normal, 30-300 is microalbuminuria, > 300 is macroalbuminuria

Document the STAGE (eGFR 30-59 is III, 15-30 is IV, <15 is V)

Diabetes HCC Score

Diabetes with chronic complication

Diabetic peripheral angiopathy (DPA) w or w/o gangrene

Diabetic Neuropathy

Diabetic Autonomic Neuropathy

Diabetic cardiomyopathy

Diabetic hyperlipidemia

Diabetic Nephropathy → chronic kidney disease

Diabetic foot ulcers

Chronic persists for 3 months. Note location, size, reason (pressure or not).

Diabetes HCC Score

Diabetes with chronic complication

Diabetic peripheral angiopathy (DPA) w or w/o gangrene

Diabetic Neuropathy

Diabetic Autonomic Neuropathy

Diabetic cardiomyopathy

Diabetic hyperlipidemia

Diabetic Nephropathy → chronic kidney disease

Diabetic foot ulcers

Amputations – redocument each year

Diabetic Retinopathy: microaneurysms, neovascularization, etc. Optimize A1c, BP mgmt. Ophthalmology referral (but A1c/BP is ours!)

Diabetes HCC Score: **Qualify Condition**

Diabetes with chronic complication

Diabetic peripheral angiopathy (DPA) w or w/o gangrene

Diabetic Neuropathy

Diabetic Autonomic Neuropathy

Diabetic cardiomyopathy

Diabetic hyperlipidemia

Diabetic Nephropathy → chronic kidney disease

Diabetic foot ulcers

Amputations

Diabetic Retinopathy

Diabetes HCC Score: **Qualify Condition**

Diabetes with chronic complication

Diabetic peripheral angiopathy (DPA) w or w/o gangrene

Diabetic Neuropathy

Diabetic Autonomic Neuropathy

Diabetic cardiomyopathy: ??clinical use??

Diabetic hyperlipidemia: ??clinical use??

Diabetic Nephropathy → chronic kidney disease

Diabetic foot ulcers:

Amputations

Diabetic Retinopathy

Diabetes HCC Score: **Qualify Condition**

Diabetes with chronic complication

Diabetic peripheral angiopathy (DPA) w or w/o gangrene

Diabetic Neuropathy

Diabetic Autonomic Neuropathy

Diabetic cardiomyopathy: ??clinical use??

Diabetic hyperlipidemia: ??clinical use??

Diabetic Nephropathy → chronic kidney disease: DM and stage

Diabetic foot ulcers: location and stage of ulcer

Amputations

Diabetic Retinopathy

Diabetes HCC Score

Diabetes with chronic complication

Diabetic peripheral angiopathy (DPA) w or w/o gangrene

Diabetic Neuropathy

Diabetic Autonomic Neuropathy

Diabetic cardiomyopathy

Diabetic hyperlipidemia

Diabetic Nephropathy → chronic kidney disease

Diabetic foot ulcers

Amputations

Diabetic Retinopathy

www.ICD10data.com

Thanks for viewing the Chronic Disease Primer on DM

There is a post test. You will be allowed one attempt.

You may view this educational session again as needed prior to taking the 10-question, multiple-choice quiz.

Handouts are available in the “Resources” folder and can be used as reference for the session. These were designed to help you in patient management as well and will be updated as needed.



RHP Insight Education Session

2023 Curriculum

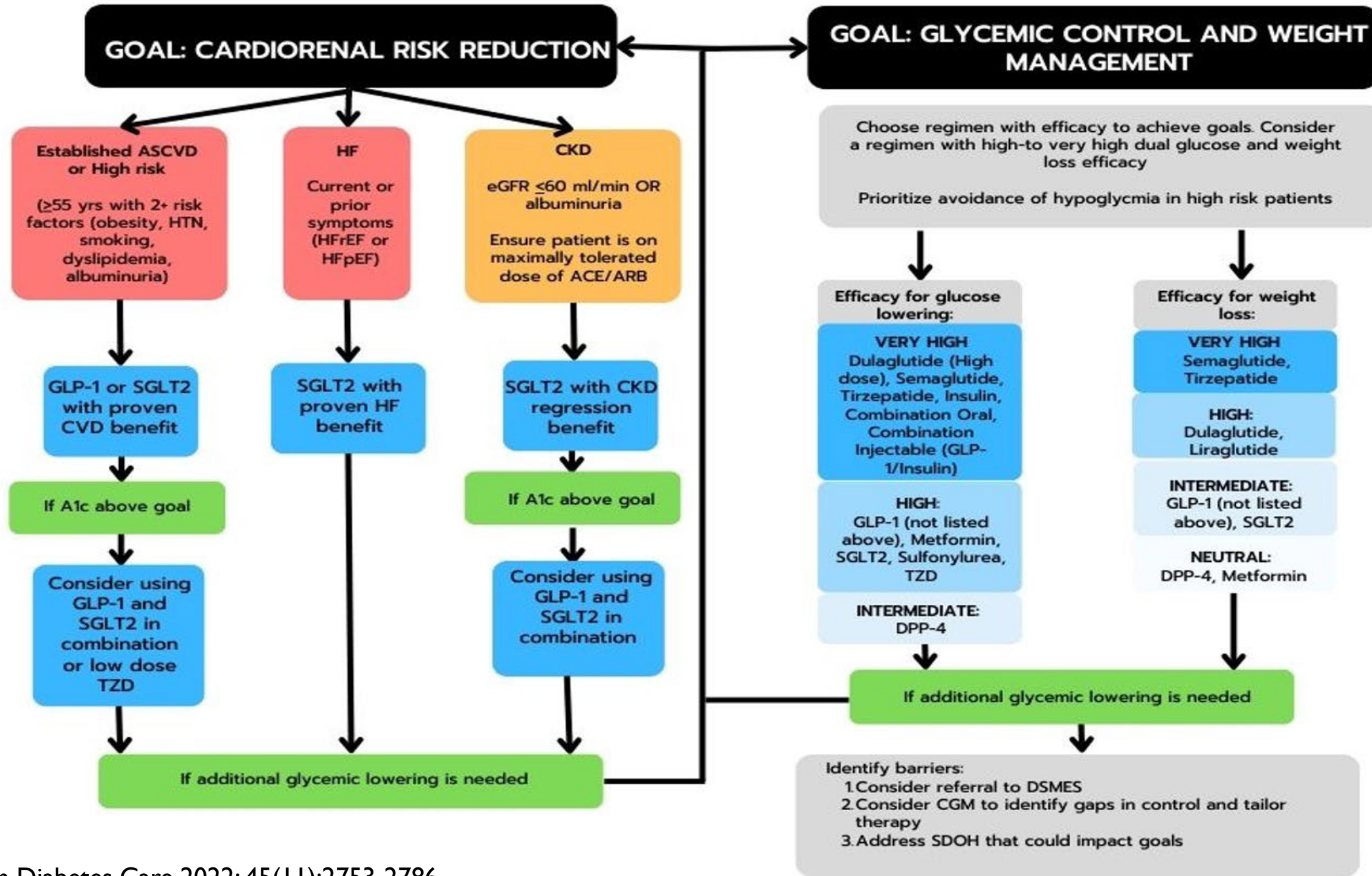
Nick Ulmer, MD CPC FAAFP

The Diabetes Mellitus Primer

2023 Stars/ACO Quality Metrics

Measure	Program		Star Category & Weight		Thresholds 03/28/2022	
	Stars	ACO	Part C or D?	Weight	4 Star	5 Star
Care for Older Adults - Medication Review	✓		C	1	82%	93%
Care for Older Adults - Pain Assessment	✓		C	1	85%	94%
Medication Adherence for Diabetes	✓		D	3	88%	92%
Medication Adherence for Hypertension (RAS)	✓		D	3	89%	91%
Medication Adherence for Cholesterol (Statins)	✓		D	3	88%	92%
TRC: Medication Reconciliation Post-Discharge	✓		C	0.5	56%	76%
TRC: Patient Engagement After Inpatient Discharge	✓		C	0.5	56%	76%
Follow-Up After ED Visit for MCC	✓		C	1	68%	78%
Plan All-Cause Readmissions	✓		C	1	11%	8%
Osteoporosis Management in Women w/ Fracture	✓		C	1	55%	73%
Statin Use in Persons with Diabetes	✓		D	1	86%	90%
Diabetes Care - Kidney Disease Monitoring	✓		C	1	95%	97%
Diabetes Care - Eye Exam	✓		C	1	71%	79%
Diabetes Care - Blood Sugar Controlled	✓	✓	C	3	75%	83%
Breast Cancer Screening	✓	✓	C	1	70%	77%
Colorectal Cancer Screening	✓	✓	C	1	71%	79%
Controlling Blood Pressure	✓	✓	C	3	73%	80%
Statin Therapy for Cardiovascular Disease	✓	✓	C	1	85%	89%
Reducing the Risk of Falling		✓				
Depression Screening		✓				
Influenza Immunization		✓				
Tobacco Screening and Cessation Intervention		✓				

Medications for Type 2 Diabetes



GLP-1 Receptor Agonists

Product	Dosing	eGFR Dose Adjustment
Exenatide (Byetta®)	5 mcg BID given 1 hour before meal, may titrate to 10 mcg BID after 4 weeks (Max dose 20 mcg/day)	CrCl <30 ml/min: Do not use
Exenatide ER (Bydureon®)	2mg once weekly (no titration)	eGFR <45 ml/min: Do not use
Dulaglutide (Trulicity®)	0.75mg weekly x 4-8 weeks, may increase dose no more often than every 4 weeks (Max dose 4.5mg)	none
Liraglutide (Victoza®)	0.6 mg daily x 1 week then increase to 1.2 mg (minimally effective dose). May increase up to 1.8mg after 1 week	none
Semaglutide (Ozempic®)	0.25 mg x 4 weeks, then increase to 0.5 mg weekly (minimally effective dose). May increase to next pen strength no more often than every 4 weeks (Max dose 2 mg)	none
Semaglutide (Rybelsus®)	3 mg daily x 4 weeks, then increase to 7mg (minimally effective dose). May increase to 14mg daily after 30 days (Max dose 14mg daily)	none
Tirzepatide (Mounjaro®) <small>(GLP-1/GIP agonist, CV trials in progress)</small>	2.5 mg weekly x 4 weeks, then increase to 5mg weekly (minimally effective dose). May increase in 2.5mg/week increments every 4 weeks to max 15mg/week.	none

Adverse Effects:

- Nausea, vomiting, diarrhea
- black box warning against use in patients with family history of medullary thyroid cancer or multiple endocrine neoplasia-2

Pearls:

- Eating smaller meals with lower fat content (avoid greasy foods) increases GI tolerability
- Be sure to optimize dosing beyond starting doses after 4 weeks. Continue to increase dose every 4 weeks if BG remain above goals
- May require lower doses of insulin to avoid hypoglycemia
- Discontinue if pancreatitis is suspected
- Avoid use with DPP-4 (no added glucose benefit with increased cost)

***Bolded** products have proven CVD benefit

SGLT-2 Receptor Agonists

Product	Dosing	eGFR Dose Adjustment	Additional Benefits in Co-morbidities
Canagliflozin (Invokana®)	100mg daily 300mg daily	eGFR 45-60 ml/min: 100mg/d eGFR <45 ml/min + >300 mg/d urine albumin: 100mg/d eGFR <45 ml/min + <300 mg/d urine albumin: do not use	<ul style="list-style-type: none"> Heart Failure Progression of CKD Cardiovascular endpoints
Dapagliflozin (Farxiga®)	5mg daily 10mg daily	eGFR 25-45 ml/min: recommend against use for DM, however safe to continue for diabetic kidney disease or HF	<ul style="list-style-type: none"> Heart Failure Progression of CKD
Empagliflozin (Jardiance®)	10mg daily 25mg daily	Discontinue if eGFR <30 ml/min (safely used in HF in eGFR>20)	<ul style="list-style-type: none"> Heart Failure Progression of CKD Cardiovascular endpoints
Ertugliflozin (Steglatro®)	5mg daily 15mg daily	Discontinue if eGFR <60 ml/min	<ul style="list-style-type: none"> Heart Failure

Adverse Effects:

- Genital mycotic infections, urinary tract infections, hypotension, volume depletion

Pearls:

- Encourage appropriate hygiene and hydration to minimize adverse effects
- May need dose reduction in other diuretic therapies

DPP-4 Inhibitors

Product	Dosing	eGFR Dose Adjustment
Alogliptin (Nesina[®])	25mg daily	CrCl ≥30-60: 12.5mg daily CrCl <30: 6.25mg daily
Linagliptin (Tradjenta[®])	5mg daily	None
Saxagliptin (Onglyza[®])	5mg daily	eGFR <45: 2.5mg daily
Sitagliptin (Januvia[®])	100mg daily	eGFR ≥30-45: 50mg daily eGFR <30: 25mg daily

Adverse Effects:

- Nasopharyngitis, pancreatitis (rare)

Pearls:

- Starting at max dose is recommended (titration not necessary)
- Avoid use with GLP-1 agonist (no added glucose control at increased cost)
- Saxagliptin associated with increased hospitalizations for HF in patients with CV disease or CV risk factors
- Less A1c lowering and no added CV or renal benefit seen with other classes

References

1. [https://diabetes.org/about-us/statistics/about/diabetes#:~:text=Diagnosed%20and%20undiagnosed%3A%20Of%20the,seniors%20\(diagnosed%20and%20undiagnosed\)](https://diabetes.org/about-us/statistics/about/diabetes#:~:text=Diagnosed%20and%20undiagnosed%3A%20Of%20the,seniors%20(diagnosed%20and%20undiagnosed))
2. Quality ID #I I7 (NQF 0055): Diabetes: Eye Exam
3. <https://nationaldppcsc.cdc.gov/s/article/CDC-2022-National-Diabetes-Statistics-Report#:~:text=The%20Centers%20for%20Disease%20Control,prediabetes%20in%20the%20United%20States>
4. Diabetes Care 2023;46(Suppl. 1):S97-110
5. The American Journal of Medicine. June 2020; pp690-704.



RHP Insight Education Session

2023 Curriculum

Nick Ulmer, MD CPC FAAFP

SRHS Value-Based Education Session for MGC Primary Care