

Addressing Disparities in Diabetes with Project ECHO: A Focus on Chronic Kidney Disease An Initiative Addressing Complex Diabetes Management in the Primary Care Setting



Session 1: January 19, 2022

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Submitted Case Presentation:

47 y/o M with T2D and Stage 2 CKD with A1c above target- what medication adjustments should be made?

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Patient is a 47-year-old male with a 7-year history of type 2 diabetes (T2D) complicated by Stage 2 CKD and hypertension and hypercholesterolemia. Most recent HbA1C is 8.1% on metformin and a sulfonylurea. Currently checking glucose in AM with readings between 110-145.

Kidney disease/Cardiometabolic disease:

- **CKD:** Stage 2 CKD with a recent eGFR of 67 mL/min (improved from 60 mL/min), uACr 128 mg/g (increased from 112 mg/g)
- **ASCVD:** AMI 6 years ago with CABG **Heart Failure:** No
- **Hypertension:** yes **Hypercholesterolemia:** yes
- **Recent BP:** 137/72 mmHg **BMI:** 37 **Weight:** 118kg **Recent lipid panel:** LDL: 72, HDL 26, TG: 165 mg/dL
- **Diabetes:** Diagnosed with T2D x 7 years with last A1c 8.1%, Morning fasting BG 110-145

Current Medication Management

- Statin: Lipitor (atorvastatin) 20mg
- Beta-blocker: Lopressor (metoprolol tartrate) 25mg
- ARB: Cozaar (losartan) 25mg
- Aspirin: 325mg

Glucose-lowering agent

- Glucophage (metformin) 1000mg BID
- Glucotrol (glipizide) 5mg BID

Social support and concerns:

- **Last PQH-9:** N/A **Last PHQ-2:** N/A **Last Diabetes Distress Scale:** N/A
- **Barriers:** Concerns about health literacy and language differences with healthcare team. Patient may not truly understand the severity of his disease but is willing to do what is necessary to be well.
- **Support:** strong family support system

Question to the ECHO Diabetes Community: Is a GLP-1 RA or a SGLT-2 inhibitor the best next step for this patient?

Case Recommendations and Considerations:

CATEGORY	RECOMMENDATIONS	REFERENCES/RESOURCE LINKS
Social Determinants of Health (SDOH)	<ul style="list-style-type: none"> • Even with commercial insurance, consider copays for GLP1RA and and SGLT2i therapy and help patient understand potential costs and support cost-saving options • GoodRx may also be used as tool in addition to pharmacist (if available in your clinic) • 340B pricing, when available, can help with affordability 	GoodRx NKF Patient & Family Resources (Includes links to prescriptions and affordable healthcare)
Behavioral Health	<ul style="list-style-type: none"> • Explore changes in lifestyle from previous A1c to current (e.g. physical activity, work changes, COVID-19) and explore strategies to reinstate healthy lifestyles regardless of pharmacotherapy adjustments. • Recommend that the patient increase physical activity; an explicit prescription for appropriate exercise could be beneficial (ex. 30 minutes of walking, 5-6 days per week) 	Hill-Briggs F, Adler NE, Berkowitz SA, Chin MH, Gary-Webb TL, Navas-Acien A, Thornton PL, Haire-Joshu D. Social Determinants of Health and Diabetes: A Scientific Review. Diabetes Care. 2020 Nov 2;44(1):258–79. doi: 10.2337/dci20-0053 .

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	<ul style="list-style-type: none"> • Note that adding exercise may have an impact on postprandial glycemic levels; consider increasing glucose monitoring to understand the impact of exercise • Assess health literacy- and consider social work and/or use of interpreter • Encourage patient to bring other family members to the visit- lifestyle changes can be “family home changes.” • Explore barriers to care and simplification. For example would a once weekly injection with a GLP1-RA help simplify his medical management regimen? • Explore potential community resources for peer support – also consider resources in workplace 	<p>Hill J, Nielsen M, Fox MH. Understanding the social factors that contribute to diabetes: a means to informing health care and social policies for the chronically ill. Perm J. 2013;17(2):67-72. doi:10.7812/TPP/12-099</p> <p>American Kidney Fund Patient & Family Resources</p>
<p>Glucose Monitoring, Set A1C + Glycemic Goals</p>	<ul style="list-style-type: none"> • Reasonable to have A1c target of 7% or less in this patient • In addition to glycemic targets, need to think of compelling indications independent of A1c in selecting pharmacotherapy 	<p>KDIGO Diabetes CKD Guidelines (2020)</p> <p>ADA Standards of Medical Care in Diabetes—2022 Abridged for Primary Care Providers (Table 6.3)</p>
<p>Medication Therapy & Adjustments</p>	<ul style="list-style-type: none"> • Both GLP1-RA and/or SGLT2i therapy could be considered in this patient and could substitute in place of sulfonylurea. If had to pick one to start with, then most likely start with the GLP1RA (once again due to compelling indications for underlying ASCVD and obesity) and then consider also adding on SGLT2i • Compelling reasons for GLP1-RA: <ol style="list-style-type: none"> (1) Compelling risk factors with underlying ASCVD (2) Compelling need to focus on weight reduction with BMI 37 (3) Blood glucose trends: Since fasting glucose values (110-145) correspond to A1c around 6.7 to 7.3%; but patient’s actual A1c is 8.1%, this suggests that post-prandial elevations are likely more of the culprit for not being closer to A1c goal. GLP1 agonists reduce appetite and attenuate post prandial spikes (4) Injectable medication may help make access easier to Continuous Glucose Monitor (CGM) to be used as an additional diabetes education tool for patient to see the effects of lifestyle and/or medication changes. 	<p>ADA Standards of Medical Care in Diabetes—2022 Abridged for Primary Care Providers (Figure 9.3, Table 9.2)</p> <p>2021 KDIGO Blood Pressure Guidelines</p>

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	<ul style="list-style-type: none"> • Compelling reasons for SGLT2i therapy <ol style="list-style-type: none"> (1) Underlying proteinuric CKD stage 2 (2) Hypertension (3) Increased efficacy in glycemic management at earlier stages of CKD. Though not as effective as GLP1 Ras. (4) non-injectable • Consider co-morbidities and polypharmacy <ul style="list-style-type: none"> ○ When additional antihyperglycemic therapies are added, consider removing BID sulfonylurea to reduce risk of hypoglycemia ○ Consider additional renoprotective measures (SGLT2i as discussed above or MRA) in consult with nephrology to delay progression of CKD2 to CKD3 and delay progression of microalbuminuria to macroalbuminuria • Consider changing Lopressor (tartrate salt form) which doesn't last all day to Toprol XL (succinate salt form) for better SBP lowering and CV risk attenuation 	
<p>CKD Management Considerations</p>	<ul style="list-style-type: none"> • SGLT2i initiation is advised in any patients with CKD, diabetes and/or CVD (HF); organ-specific treatment • Consider higher intensity HTN management (SGLT2i may also help with BP management) 	<p>KDIGO Diabetes CKD Guidelines (2020) https://ciasn.asnjournals.org/content/16/4/631.long Decision algorithm for prescribing SGLT2i and GLP-1 RAs: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7646234/</p>
<p>Risk Reduction</p>	<ul style="list-style-type: none"> • Refer to Behavioral Health recommendations above with emphasis on weight reduction and exercise 	
<p>Diabetes Self-Management Education & Support (DSMES)/Follow Up</p>	<ul style="list-style-type: none"> • Advise repeat DSME due to change in treatment plan; ideally evaluate DSME programs for cultural alignment and minimal language barriers • In addition to pharmacotherapy education, continue to reinforce healthy lifestyles and explore physical activity and food diaries 	<p>Reminder for times diabetes education referral: Excellent summary and additional reference available on DiaTribe: https://diatribe.org/four-key-times-see-diabetes-educator</p>

PLEASE NOTE that case consultations and submissions for ECHO Diabetes do not create or otherwise establish a provider-patient relationship between ECHO Diabetes Action Network, Med-IQ and/or any other clinician on the Addressing Disparities in Diabetes with Project ECHO faculty.