Diabetes and Hypertension Project ECHO* Clinic

*ECHO: Extension of Community Healthcare Outcomes

Aug. 10, 2023

The Diabetes and Hypertension ECHO is made possible by funding through CDC Cooperative Agreement NU58DP006620-InnoVAte.

Zoom Reminders



- You are all on mute.
 Please unmute to talk.
- If joining by telephone audio only, press *6 to mute and unmute.
- Use the chat function to speak with our team or ask questions.

ECHO is all teach, all learn



Interactive



Co-management of cases



Peer-to-peer learning



Collaborative problem solving

Helpful Reminders

- Please feel free to eat your lunch or step away briefly if needed
- We are recording and can share sessions upon request
 - Each session's slides are available on www.vcuhealth.org/echodmhtn
- Please do not share any protected health information in your discussion or the chat box
- Project ECHO operates on the "All Teach, All Learn" model
 - Feel free to ask questions in the chat or unmute to ask questions at designated times
 - We're all here to learn from each other and value each person's input and expertise!

VCU Health Diabetes & Hypertension ECHO Clinics

VCU Hub Team	
Principal Investigator	Dave Dixon, PharmD
Clinical Experts	Niraj Kothari, MD Trang Le, MD

- NEW: 1-hour ECHO clinics on 2nd Thursdays
- Every ECHO clinic includes a didactic presentation followed by case discussions/questions
- Website: <u>www.vcuhealth.org/echodmhtn</u>
 - Directions for claiming CE can be found here
 - You have up to six days after our session to claim CE by

texting **29390-28189** to **804-625-4041**



Disclosure

• VCU site sub-investigator, Vertex Pharmaceuticals (VX-147/AMPLITUDE study)

Future of Kidney Care

Learning objectives

- Discuss criteria for patient referral to nephrology
- Understand effects of HTN on various organs
- Distinguish HTN urgency from emergency
- Discuss management of HTN urgency

Challenges in kidney care

- Identifying "at-risk" patients
- Reducing progression to end-stage kidney disease
- Transplant availability
- Dialysis is hard

Identifying "at-risk" patients

- Many patients with CKD are unaware they have it
 - One study found ~10% of CKD patients were aware of their diagnosis
- Referral quality: is it better to refer an 85yo with eGFR of 55mL/min/1.73m² or a 25yo with eGFR of 70 (from 100 last year)?



September 2019 | ASN Kidney News | 15

With PEAK Program, Artificial Intelligence Helps Build Smooth Transition to Dialysis, Encouraging Home Modalities

Figure 1. Kaplan-Meier curve of high-risk versus non-high-risk groups over time



hellokidney



Rogosin Cohort — >=0.30 — <0.30



Reducing progression to end-stage kidney disease

DURATION OF PRE-ESKD NEPHROLOGY CARE AMONG INCIDENT ESKD PATIENTS



Reducing progression to end-stage kidney disease



NIDDK 3/2020

Reducing progression to end-stage kidney disease

- Newer therapeutic agents
 - Finerenone
 - Non-steroidal MRA—significant reduction in a composite outcome of kidney failure, ≥40% eGFR reduction, or death from renal causes in patients with DM2
 - SGLT2 inhibitors "flozins"
 - DAPA-CKD: Dapagliflozin use led to a significant slowing of CKD progression, as well as significant reduction in a composite outcome of ESKD, death from renal/cardiovascular causes, ≥50% eGFR reduction, even in patients without DM2
 - EMPA-KIDNEY: Empagliflozin use led to a significant reduction of a composite outcome of ESKD, eGFR <10mL/min/1.73m², ≥40% eGFR reduction, or death from renal/cardiovascular causes, including patients without DM2
- Tailored therapy/precision medicine
 - APOL1: VX-147 (inaxaplin) in trials (phase 2/3)

Transplant availability

Figure 7.8a Yearly distribution of living donor transplantation, deceased donor transplantation, death, and removal from the waitlist after initial waitlisting, 2015-2017



Data source: USRDS ESRD database and OPTN waitlisting history.

USRDS Annual Data Report 2022

Transplant availability

- HCV+ donation
- ABO incompatible donation
- Paired donation
- Xenotransplantation



Dialysis helps but is not great

- Scheduling 3x weekly
- Staff/facilities
- Not everyone can perform home dialysis
- Physiologic effects
- Poor life expectancy



This Photo by Unknown Author is licensed under <u>CC BY-ND</u>



- Can place next to patient's desk or bed
- UW: "dialysate recycler"
 - Instead of using so much water for dialysis, device recycles dialysate to significantly reduce machine size

In summary

- Patients with kidney disease face many challenges
 - identifying the issue
 - referring to a nephrologist in time
 - managing their chronic kidney disease
 - dialysis
 - Transplant
- In the future, we may have solutions to many of these problems, which will hopefully lead to a complete transformation of what it means to be a kidney patient

Question #1

Artificial kidneys are available today and are a great alternative to hemodialysis

- A. True
- B. False



Dialysis is associated with a wide variety of physiologic effects, including possible myocardial ischemia

A. True

B. False

Question #3

Which of the following has been shown to slow progression of CKD?

- A. Finerenone
- B. Dapagliflozin
- C. Empagliflozin
- D. All of the above

Case #1

You are performing a monthly hemodialysis assessment on a 48 year old female. She is tolerating dialysis well but wonders whether she should defer her planned living donor transplant (scheduled for next week) in the hopes of getting an artificial kidney in the future. She has read about the incidence of myocardial ischemia with dialysis and asks for a referral for cardiac catheterization. How would you address her concerns?

Case #2

- 58yo male, presenting to clinic for HTN management
- Feels well but notes stress from work
- PMH: HTN, DM2, chronic kidney disease
- Meds: amlodipine, diltiazem, carvedilol
- BP 168/96, HR 57
- How would you approach this patient?

Case Studies

- Anyone can submit cases: www.vcuhealth.org/echodmhtn
- Receive feedback from participants and content experts
- Earn **\$150** for submitting and presenting

Provide Feedback

www.vcuhealth.org/echodmhtn

- Feedback
 - Overall feedback related to session content and flow?
 - Ideas for guest speakers?

Access Your Evaluation

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Diabetes and Hypertension Project ECHO

Welcome to the Diabetes and Hypertension Extension for Community Health Outcomes or ECHO, a virtual network of multidisciplinary diabetes and hypertension experts. An ECHO model connects professionals with each other in real-time collaborative virtual sessions on Zoom. Participants present de-identified cases to one another, share resources, connect to each other, and grow in their expertise. This ECHO will address practice level issues and solutions related to managing complex patients with difficult to control diabetes and hypertension. Register now for an ECHO Session!

Network, Participate and Present

- Engage in a collaborative community with your peers.
- Listen, learn and discuss informational and case presentations in real-time.
- Take the opportunity to submit your de-identified case study for feedback from a team of specialists for diabetes and hypertension.
- Provide valuable feedback.
- Claim CE credit by texting in attendance.

Benefits

VCU Diabetes & Hypertension Project ECHO Clinics

2nd Thursday — *NEW: 12 p.m. to 1 p.m.*

Mark Your Calendars — Upcoming Sessions

Sept. 14: The Future of Diabetes Care

Please register at www.vcuhealth.org/echodmhtn

Thank you for coming!



Text 29390-28189 to 804-625-4041 for CE credit



Reminder: Mute and Unmute to talk Press *6 for phone audio Use chat function for questions