

# Diabetes and Hypertension Project ECHO\* Clinic

\*ECHO: Extension of Community Healthcare Outcomes

October 13, 2022

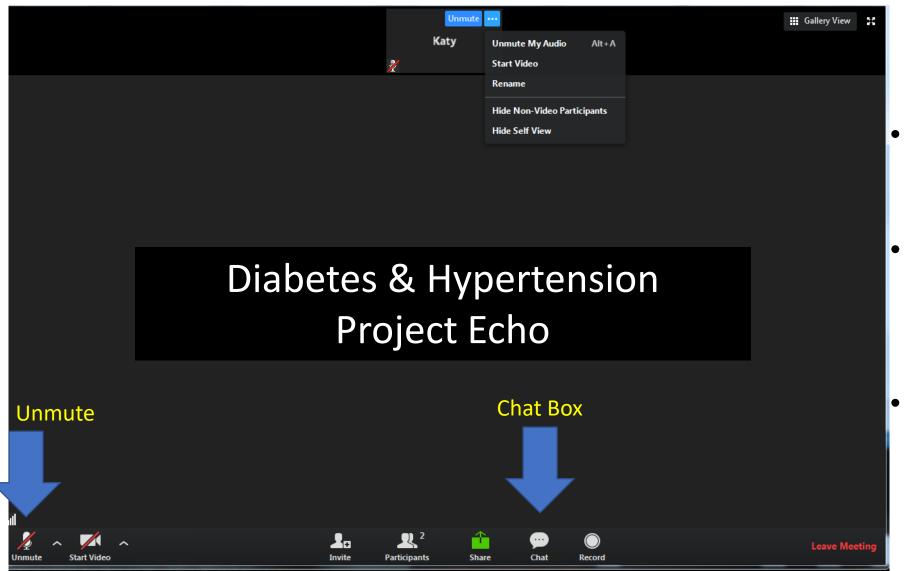
### Before we begin:

- Rename your Zoom screen with your name and organization
- Claim CE: text 25399-25389 to 804-625-4041
  - Go to vcuhealth.org/echodmhtn for instructions on creating your account

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



- One-hour ECHO clinics on 2nd Thursdays
- Every ECHO clinic includes a didactic presentation followed by case discussions
- Website: www.vcuhealth.org/echodmhtn
  - Directions for claiming CE can be found here
  - You have up to six days after our session to claim CE by texting 25399-25389 to 804-625-4041





### Disclosures

Kristen Bardaro, NP has no financial conflicts of interest to disclose.

Trang Le, MD has no financial conflicts of interest to disclose.

There is no commercial or in-kind support for this activity.





## Diabetic Foot Ulcers 101





## Learning objectives

- Identify patients at risk for DFU and screening recommendations
- Define classification of diabetic foot ulcers
- Explain management options for diabetic foot ulcers through case studies







- Sensory: Loss of Protective Sensation (LOPS)
- Autonomic: Skin changes
- Motor: Muscle Imbalances, Foot Deformities











PERIPHERAL ARTERY DISEASE

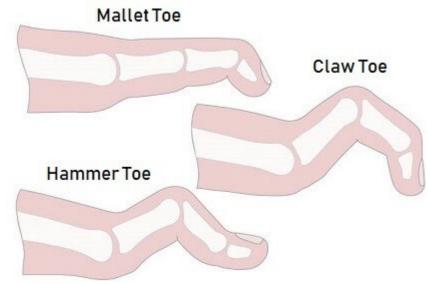
**VENOUS INSUFFICIENCY** 

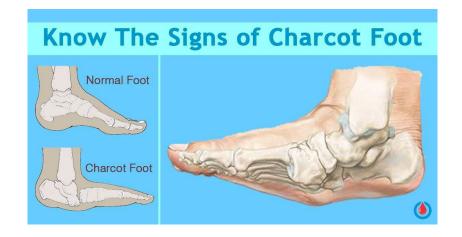


## Structural Changes

- Claw Toes
- Hammer Toes
- Charcot Arthropathy











## End Stage Renal Disease







History of foot ulcer or amputation



### Screening Recommendations

IWGDF Risk Stratification System Screening frequency:

- NO LOPS or PAD: Once a year
- LOPS or PAD every 6-12 months
- LOPS + PAD or, LOPS + foot deformity, or PAD + foot deformity every 3-6 months
- LOPS or PAD, and one or more of the following:

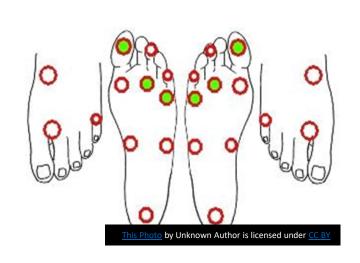
History of foot ulcer

Lower extremity amputation (minor or major)

End stage renal disease

Every 1-3 months

https://iwgdfguidelines.org/







## Wagner Classifications of Diabetic Foot Ulcers

Example of a Grade 2



- Grade 0: Skin is intact but bony deformities put patient at risk
- Grade 1: Superficial ulcer
- Grade 2: Deeper full thickness extension
- Grade 3: Deep abscess formation or osteomyelitis
- Grade 4: Partial Gangrene
- Grade 5: Extensive Gangrene

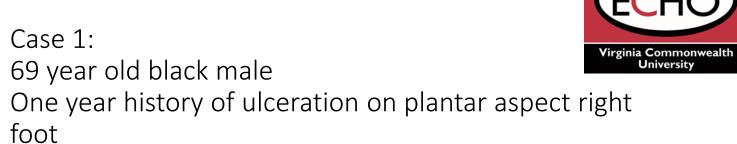




## Case Studies





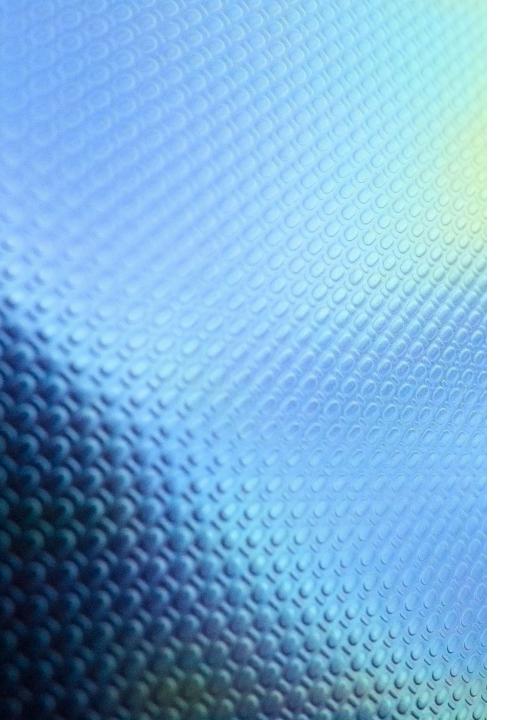


History of type 2 diabetes (Hgba1c 7.3%)

Hepatitis C

Peripheral Artery Disease

Transmetatarsal Amputation right 2010



Case 1:
69 year old black male
One year history of ulceration on plantar aspect right foot

### **Previous Treatment:**

- Total contact cast
- Local wound care
- One application of dermagraft
- MRI of right foot 11/2021: no acute Osteomyelitis



### Case 1:

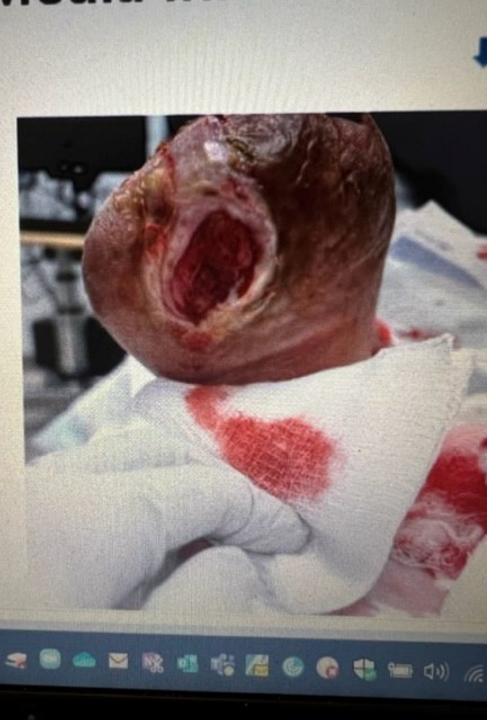
69 year old black male

One year history of ulceration on plantar aspect right foot

### **Initial Evaluation:**

- Full thickness wound on right lateral plantar foot
   2.5cm x 3cm x 0.4 cm
- Periwound area with heavy callous formation
- Wound bed pink with no erythema, no tenderness
- Moderate amounts of non odorous serosanguinous drainage
- Based on Wagner Classification what grade is this ulcer?
- What radiographic studies would you think about obtaining today?





# Case 1: 69 year old black male One year history of ulceration on plantar aspect right foot

### Plan:

- 1. Radiographic Study: X ray of right foot
- 2. Arterial blood flow studies: arterial duplex
- 3. In office Sharp Debridement of wound using 5mm curette, irrigation with Normal saline
- 4. Local wound Care
- 5. Off-Loading: Discussed Options
- 6. Follow up weekly





# Questions / suggestions?





Case 1:

44 year old female with type 2 diabetes ( HgbA1C 11%) hypertension and anxiety.

Presents post emergency room visit with cellulitis and diabetic ulcer left small toe

### **Initial Evaluation:**

- Full thickness wound on left small toe length 0.6cm x width 0.3 cm x depth 0.2 cm
- Periwound area with devitalized skin
- Wound bed pink with mild erythema, tenderness
- Moderate amounts of non odorous serosanguinous drainage
- Based on Wagner Classification what grade is this ulcer?
- What radiographic studies would you want to obtain?



Case 1:
44 year old female with type 2 diabetes (HgbA1C 11%)
hypertension and anxiety. Presents post emergency room visit with cellulitis and diabetic ulcer left small toe

### X RAY IMPRESSION:

No acute findings

### • MRI IMPRESSION:

Increased fluid signal within the soft tissue of the lateral aspect of the fifth toe, consistent with known ulceration. No abnormal bone marrow signal or sinus tract to suggest acute osteomyelitis.





Case 1:

44 year old female with type 2 diabetes, hypertension and anxiety. Presents post emergency room visit with cellulitis and diabetic ulcer left small toe

#### Plan

- Patient stopped doxycycline due to nausea but continues on Augmentin. She has not completed the whole course. I have instructed her to continue medication until completed. Cellulitis is looking improved today
- Wound care to left small toe: Wash with soap and water daily, cover with Mepilex
   AG and secure with tape
- Offload in diabetic offloading shoe
- Follow up in 2 weeks
- Will obtain ABI/TBI at that time
- Discussed importance of blood sugar control with patient. She acknowledges that she has not been taking care of her diabetes but has restarted all her medications since discharge from the hospital
- Will order patient new glucometer as she does not have one at home



## Questions?







### Case Studies

- Anyone can submit cases: <a href="www.vcuhealth.org/echodmhtn">www.vcuhealth.org/echodmhtn</a>
- 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?

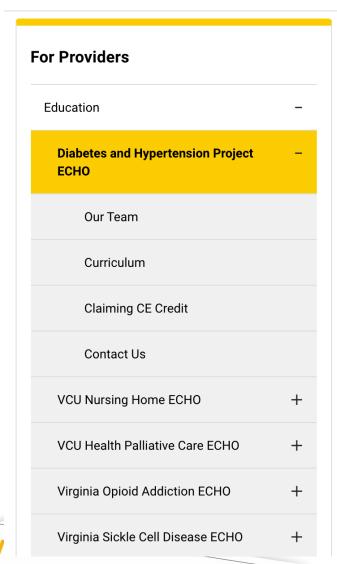


### Send us your feedback

vcuhealth.org/services/telehealth/for-providers/education/diabetes-and-hypertension-project-echo







## 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

 $2^{nd}$  Thursdays — 12 p.m. to 1 p.m.

### **Mark Your Calendars — Upcoming Sessions**

Nov. 10 - Diabetes Management in CKD

Dec. 8 - Hypertension and CKD

Jan. 12 – Prediabetes and CKD

Please register at <a href="https://www.vcuhealth.org/echodmhtn">www.vcuhealth.org/echodmhtn</a>





### Thank you for coming!





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