

IN-PERSON AND VIRTUAL

Penn Invasive Hypertension Management Symposium



Friday, January 12, 2024

In-Person Meeting Location

Arthur H. Rubenstein Auditorium at the Smilow Center for Translational Research 3400 Civic Center Blvd. Philadelphia, PA 19104

CME/CE-ACCREDITED CONFERENCE

PROGRAM OVERVIEW & TARGET AUDIENCE



Hypertension remains the leading cause of cardiovascular death in the United States yet a large percentage of patients with hypertension cannot achieve control of their disease. Several contemporary sham-controlled randomized studies have shown that a novel invasive therapy called renal denervation can lower blood pressures over medications alone. This unique symposium explores cutting edge comprehensive hypertension care highlighting the role of renal denervation in the armamentarium of options to treat resistant hypertension.

This activity has been designed for interventional cardiologists, nephrologists, geriatricians, endocrinologists, nurse practitioner, nurses, residents fellows students and other healthcare professionals providing care to patients with hypertension in their practice.

LEARNING OBJECTIVES

Upon completion of this activity, physicians and health care providers will be able to:

- Identify common causes of secondary hypertension
- Describe renal denervation's role in modern day management of hypertension
- Describe the workup for resistant hypertension
- Review results of contemporary renal denervation trials
- Discuss inclusion and exclusion criteria for renal denervation trials
- Apply into practice the renal denervation procedure
- Discuss the various roles of the hypertension team

HOSTING DEPARTMENT

The Penn Invasive Hypertension Management Symposium is hosted by the division of cardiovascular medicine in the Department of Medicine at Penn Medicine.

SERVICES FOR THE DISABLED If special arrangements are required for an individual with a disability to participate this meeting, please contact the Office of Continuing Medical and Interprofessional Education no later than January 2, 2024, at 215-898-6400.

NONDISCRIMINATION STATEMENT The University of Pennsylvania values diversity and seeks talented students, faculty, and staff from diverse backgrounds. The University of Pennsylvania does not discriminate on the basis of race, sex, sexual orientation, gender identity, religion, color, national or ethnic origin, age, disability, or status as a Vietnam Era Veteran or disabled veteran in the administration of educational policies, programs or activities; admissions policies; scholarship and loan awards; athletic, or other University administered programs or employment. Questions or complaints regarding this policy should be directed to Executive Director, Office of Affirmative Action and Equal Opportunity Programs, 3600 Chestnut Street, Sansom Place East Suite 228, Philadelphia, PA 19104-6106 or 215-898-6993 (Voice) or 215-898-7803 (TDD). www.upenn.edu/affirm-action.



ACCREDITATION



In support of improving patient care, Penn Medicine is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

DESIGNATION OF CREDIT

Physicians: Penn Medicine designates this live activity for a maximum of 8.0 *AMA PRA Category 1 Credits*TM. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Nurses: This program provides 8.0 NCPD hours.

Physician Assistants: AAPA accepts certificates of participation for educational activities certified for *AMA PRA Category 1 Credit*[™] from organizations accredited by ACCME or a recognized state medical society. PAs may receive a maximum of 8.0 Category 1 credits for completing this activity.

Certificates and Transcripts: After the conference has concluded, all participants will receive a follow-up email with instructions and a link with instructions on how to claim their credit. Once participants submit the request for credit, the earned credits will be available for viewing on your transcript or available for printing at https://upenn.cloud-cme.com. Please note that the individual certificate will not be mailed.

LIVE AND VIRTUAL PRESENTATIONS

The Penn Invasive Hypertension Management Symposium will be held Friday, January 12, 2024 by in-person or live-stream (virtual) attendance. The live and virtual presentations will follow the scheduled agenda in real time (EST).

TO ATTEND IN-PERSON:

Meeting Location

Arthur H. Rubenstein Auditorium at the Smilow Center for Translational Research 3400 Civic Center Blvd., Philadelphia, PA 19104

Parking

Parking is available at 3600 Civic Center Blvd, Philadelphia, PA 19104. The fee is \$20 and is not validated or reimbursed by the symposium.

TO ATTEND BY LIVE-STREAM (VIRTUAL):

Attendees who are registered to attend virtually will receive an email 48 hours in advance that includes a link to join the symposium. All virtual attendees will be required to sign into the meeting using your first name, last name and email address in order to be marked as attended and receive credit, if applicable.



REGISTRATION FEES

IN-PERSON AND VIRTUAL ATTENDANCE:

Please register online at *http://upenn.cloud-cme.com/Invasivehypertension2024*. The fees to attend in-person or virtual are as follows: \$50 for physicians and industry attendees, \$25 for nurse practitioners, nurses, physician assistants and other healthcare professionals. There is no fee for residents, fellows and students or Penn Medicine staff, residents, fellows, and students.

All pre-registered, **in-person** attendees will receive access to the conference, attendee booklet, continental breakfast, lunch and breaks. Registration also includes access to view the presentations online for one year. Walk-ins are discouraged. Please be sure to register in advance.

All pre-registered **virtual** attendees will receive an email 48 hours in advance that includes a link with instructions to sign-in and join the virtual conference, as well as the attendee booklet (downloadable PDF). Registration also includes access to view the presentations online for one year.

Need to Register by Mail?

Please note: mailed registrations may take more than 5-10 business days before they are eceived by the CME Office because we continue to experience longer delays in receiving mail. We encourage all attendees to register online. See the registration form for mailing instructions. All registrations will be confirmed by email as long as your registration is received before January 9, 2024.

BE SURE TO CHECK YOUR SPAM BOX FOR EMAILS REGARDING THIS CONFERENCE.

CANCELLATION POLICY

In order to process refunds for course withdrawals, cancellations must be received in writing by January 2, 2024 (subject to a service charge of \$25.00). No refunds will be issued thereafter.

The University reserves the right to cancel or postpone any course due to unforeseen circumstances. In the event of cancellation or postponement, the University will refund registration fees but is not responsible for related costs or expenses to participants, including cancellation fees assessed by hotels, airlines, and travel agencies.

FACULTY

View the full faculty profiles by clicking on the names below.

COURSE DIRECTORS

FACULTY

Debbie Cohen, MD Taisei Kobayashi, MD Sandeep Aggarwal, MD

Matthew Denker, MD, MSCE

Maria Bonanni, MSN, CRNP Jay S. Giri, MD

Jordana Cohen, MD Raymond R. Townsend, MD

DISCLOSURES

Penn Medicine, Office of Continuing Medical and Interprofessional Education, adheres to the ACCME Standards for Integrity and Independence in Accredited Continuing Education. Faculty disclosure information will be made available in the conference materials and syllabi. Faculty members are also expected to disclose to participants any discussions of off-label and/or investigational uses of pharmaceutical products or devices within their presentations.



AGENDA > FRIDAY, JANUARY 12, 2024

7:30 AM – 8:00 AM In-person Registration & Continental Breakfast

7:45 AM - 8:00 AM Virtual Attendee Sign-in

(Broadcast goes live at 8:00 am)

8:00 AM - 8:10 AM Welcome & Introductions

Debbie Cohen, MD Taisei Kobayashi, MD

8:10 AM - 8:20 AM Hypertension Guideline Overview

Raymond R. Townsend, MD

• JNC/AHA

SCAI position

• European Society of Hypertension

ESC

8:20 AM - 8:25 AM BP - How to Measure it When to Measure it?

Matthew Denker, MD, MSCE

• Time of day?

• Differences between office/24 hour

8:25 AM - 8:50 AM Secondary Hypertension: What to Look for and How to Diagnose it

Jordana Cohen, MD

• Renal artery stenosis

Vasculitidies/FMD

• Endocrinopathies

• Hyperaldo – prevalence, more common than we think

• Pheo

8:50 AM - 9:30 AM Current State of HTN control

Sandeep Aggarwal, MD

• Global rates of control

• Effect of the pandemic on HTN control rates

• Adherence rates even in drug control trials - via urine drug screening

Medication as a confounder

• Disparities in HTN control (race, gender, global economic states)

9:30 AM – 9:50 AM Break & breakout sessions with 24 hour ABPM

9:50 AM - 10:00 AM Targets and Modalities of RDN

Taisei Kobayashi, MD

• Surgical splanchiectomy

Anatomical overview and distribution of renal nerves

Modalities

• Radiofrequency RDN

• Ultrasound RDN

Alcohol RDN



10:00 AM - 10:20 AM

Current Data on RDN Part 1

Debbie Cohen, MD

- Overview of trial design
 - The rationale for on and off med trials
 - Global registry
- rRDN
 - SPYRAL ON/OFF
 - SPYRAL ON Pivotal
- uRDN
 - RADIANCE HTN SOLO
 - RADIANCE HTN TRIO

10:20 AM - 10:40 AM

Current Data on RDN Part 2

Raymond Townsend, MD

- Global SYMPLICITY registry (GSR)
 - Largest RDN registry to date with 3-year outcomes
- SIMPLICITY HTN3 3-year outcomes
 - Despite a short-term negative outcome, data at 3 years appears promising and match GSR's pattern of increasing efficacy long term
- Patient preference study
 - Discordance between physician values and patient values and risk tolerance
 - Largest factor to RDN is physician approval
 - Expect larger patient self-referral

10:40 AM - 12:00 PM

Recorded Case (Radiofrequency Renal Denervation)

12:00 PM - 12:30 PM

Lunch

12:30 рм - 1:00 рм

Breakout Sessions With Hands on Models

1:00 PM - 1:30 PM

RDN Procedure Planning and Techniques

Jay S. Giri, MD

- CT abd/pel
- Non-selective aortogram
- Selective renal angiography
- RDN platforms
 - Similarities
 - Femoral access
 - Sedation
 - 0.014" guidewire
 - Differences
 - 6F vs 7F
 - Targets for interventions main vs distal
- Data comparing rRDN distal + main vs uRDN main alone appear equal in efficacy
- Emergency equipment
 - Covered stents
 - Coils



1:30 PM - 2:30 PM

Recorded Case (Ultrasound Renal Denervation)

2:30 PM - 2:45 PM

How to Streamline Your HTN Center

Maria Bonanni, MSN, CRNP

- AHA certification
 - Check list
- Patient centered flowsheet
 - Current process and prediction for how patients will be seen and managed once commercial

2:45 PM - 3:00 PM

Best Practices on Approaching Patients in the Office About RDN

Debbie Cohen, MD

- How would you summarize the data that we covered and the procedures to a patient?
- What are some of the most common questions you get from patients?

3:00 PM - 3;45 PM

Future of RDN - Panel discussion

Moderators:

Debbie Cohen, MD and Taisei Kobayashi, MD

Panelists: Sandeep Aggarwal, MD, Maria Bonanni, MSN, CRNP, Debbie Cohen, MD Jordana Cohen, MD, Matthew Denker, MD, MSCE, Jay S. Giri, MD and Raymond Townsend, MD

- Logistical challenges given the future of RDN being radial and utilizing more AI to include more patients
 - How do we accept this much volume?
 - Where do we focus on recruitment?
 - Who will see these patients? APPs/RN?
 - How do we penetrate traditionally marginalized groups?
 - Who will keep track of these patients?
- Penn Denervation Center
 - Patient flow
 - Patient care coordinator
 - Dedicated RDN lab

3:45 PM

Conclusion

Debbie Cohen, MD Taisei Kobayashi, MD

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Penn Invasive Hypertension Management Symposium

Friday, January 12, 2024

We strongly encourage you to register for this conference online by check or credit card at http://upenn.cloud-cme.com/Invasivehypertension2024

Questions? Contact us at:

Please print or type

penncme@pennmedicine.upenn.edu • Phone: 215-898-6400 or 215-898-8005

Please note: we are unable to accept faxed registration forms.

Name (First)	(Last)			
Academic Degree				
Medical Specialty				
Affiliation (Hospital, Office, or Company)				
Address (☐ Affiliation or ☐ Home)				
City	State		Zip	
Phone		Fax		

REGISTRATION FEES

E-mail

(pre-payment is required to be officially registered)

IN-PERSON or VIRTUAL ATTENDANCE:

- ☐ Physicians and industry employees \$50
- ☐ Nurse practitioners, physician assistants and other healthcare professionals \$25
- ☐ Residents, fellows and students no fee
- $\hfill\square$ Penn Medicine staff, residents, fellows, and students no fee

PAYMENT METHOD

- If you are paying by check or credit card, please register online at
 - http://upenn.cloud-cme.com/Invasivehypertension2024
- If you are paying by check, you may mail your completed registration form and check made payable to The Trustees of the University of Pennsylvania/CME to:

Conference Manager

Office of Continuing Medical & Interprofessional Education

Academic Programs, Penn Medicine, JMEC, SPE, 6th floor

3400 Civic Center Blvd, Bldg. 421

Philadelphia, PA 19104-5162

Do not include any credit card information on the registration form or share via email.