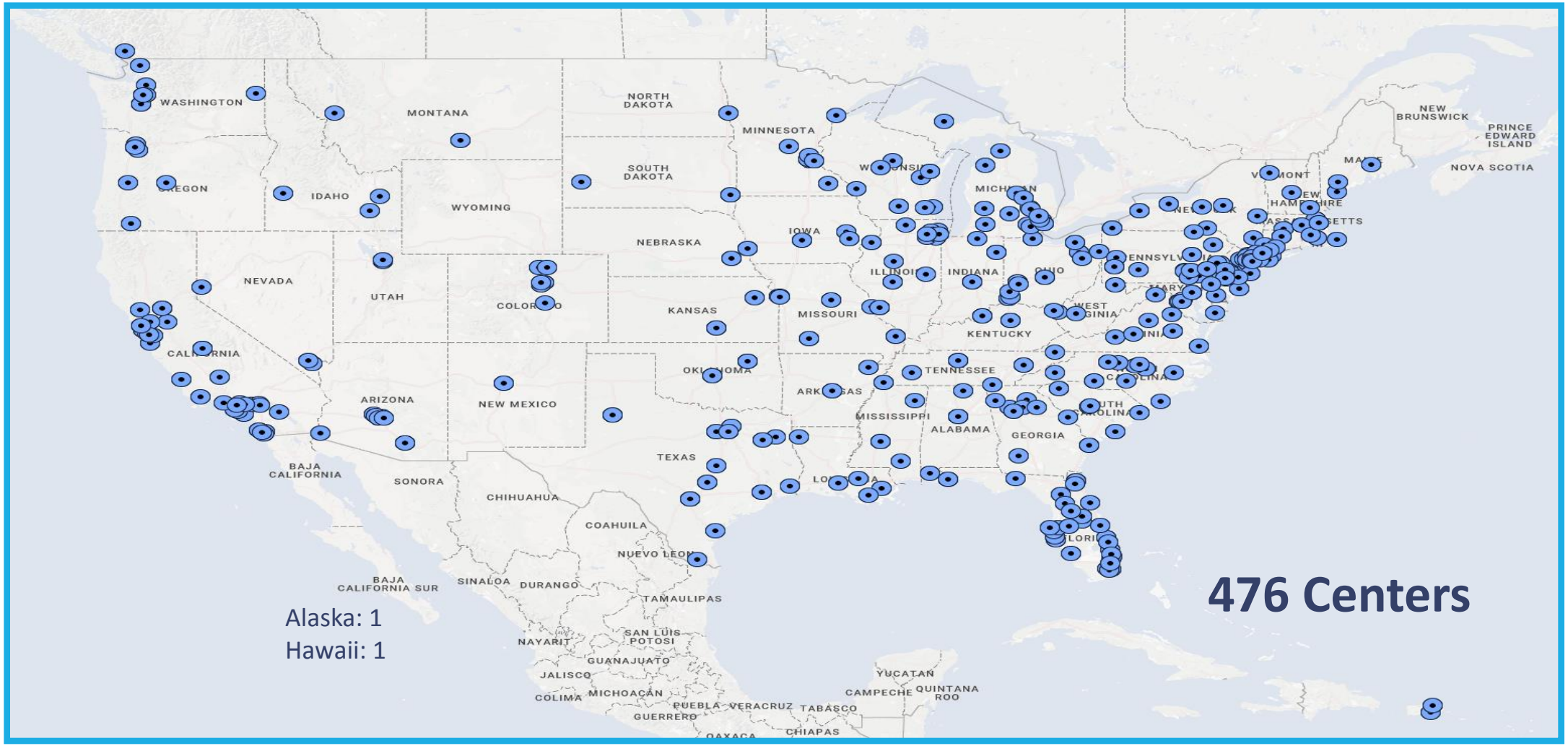
Training for Specialists at Advanced Valve Centers

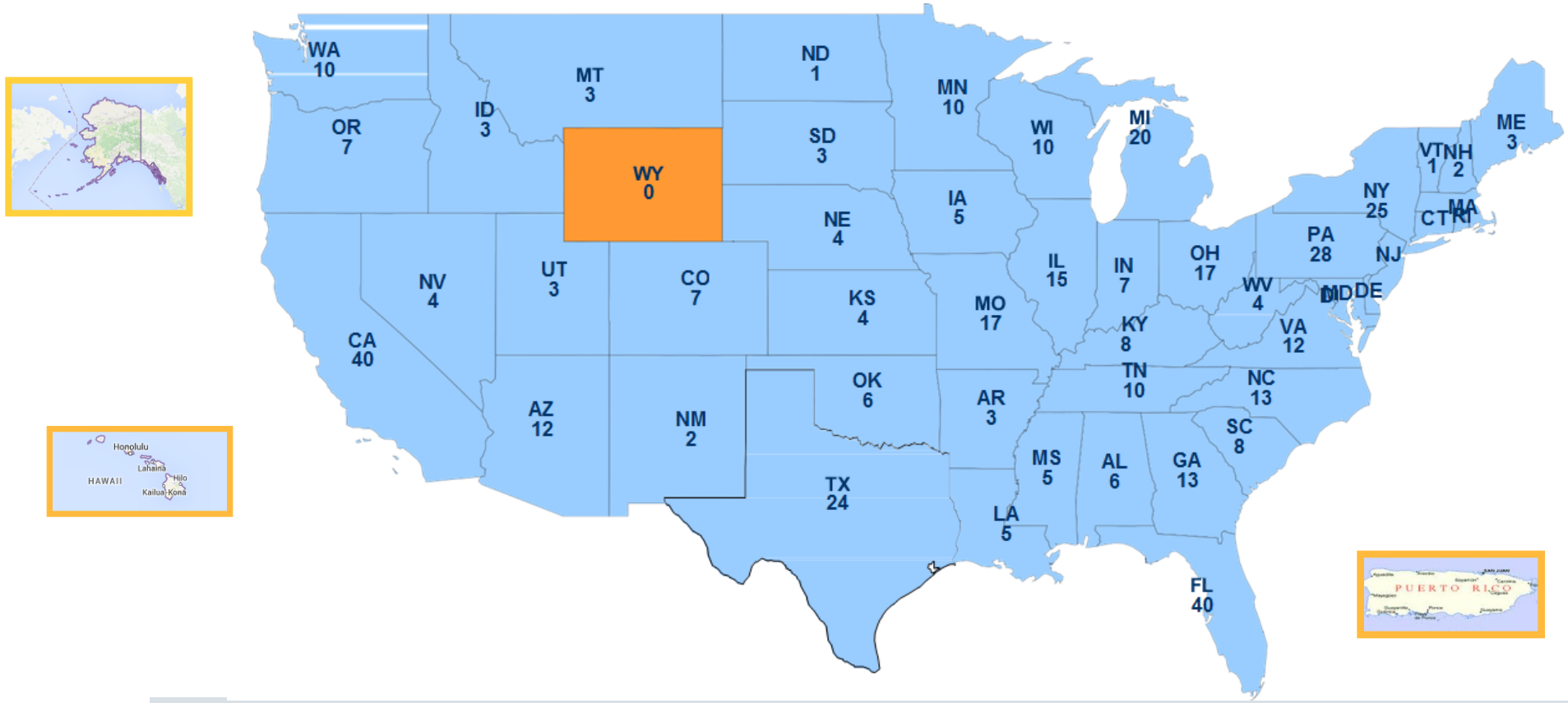
MICHAEL MACK, M.D

DECEMBER 12-13, 2016

TAVR Centers in US –August 2016



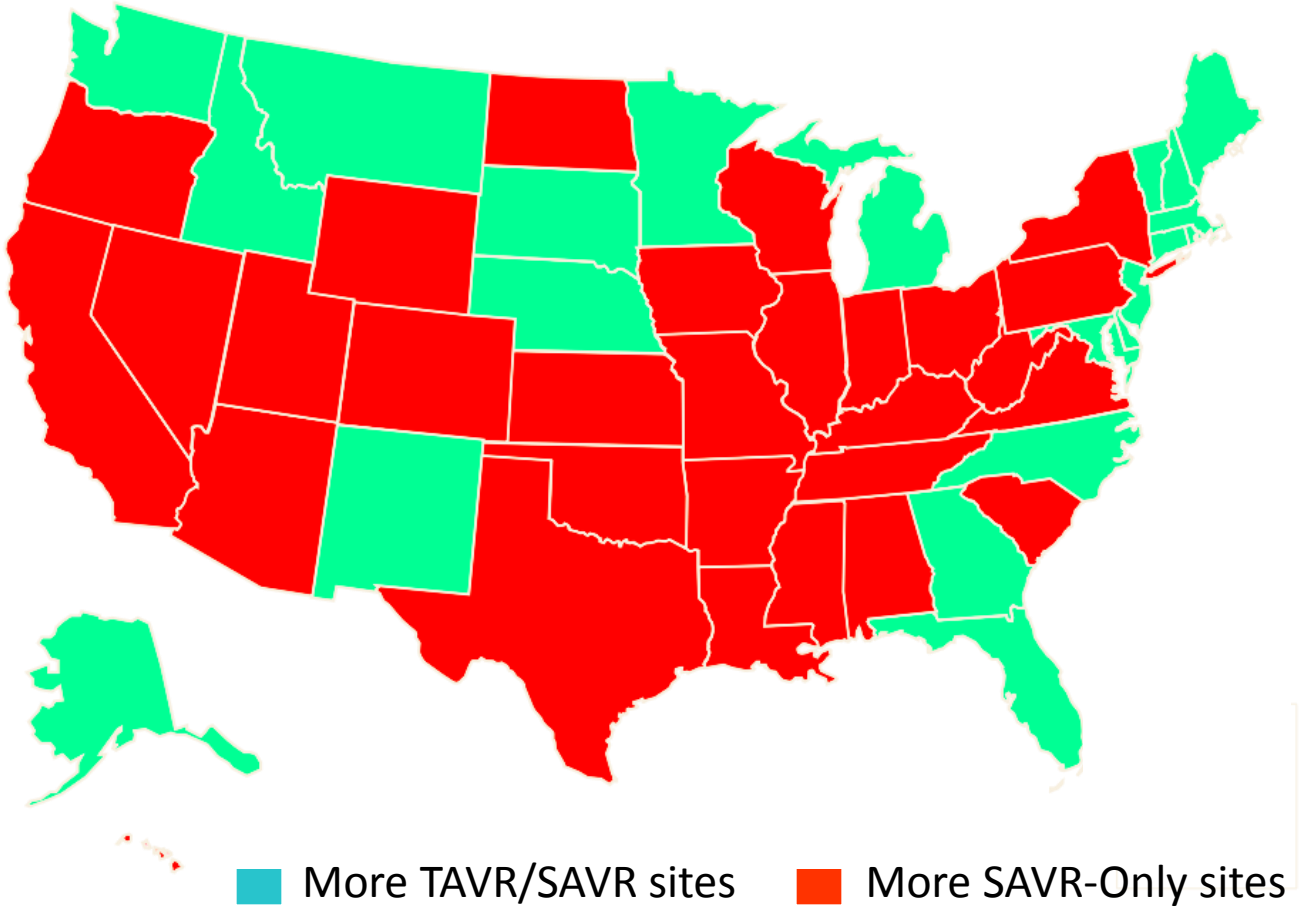
Sites Participating in the STS/ACC TVT Registry



CT:	7
DC:	2
DE:	2
MA:	12
MD:	6
NJ:	13
RI:	1

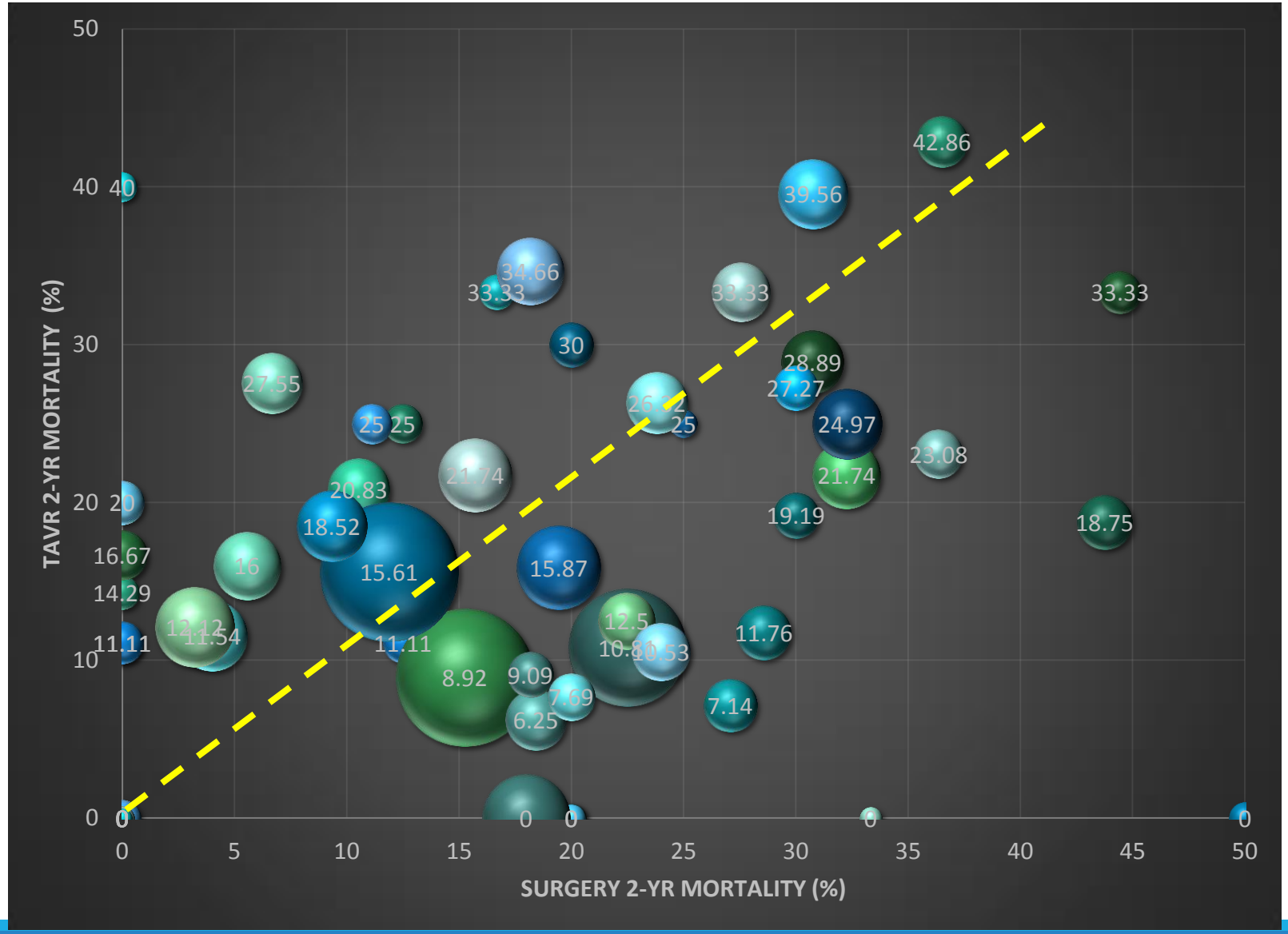
476 TAVR sites
231 sites performing MitraClip Procedures

Patient Access to TAVR in the US



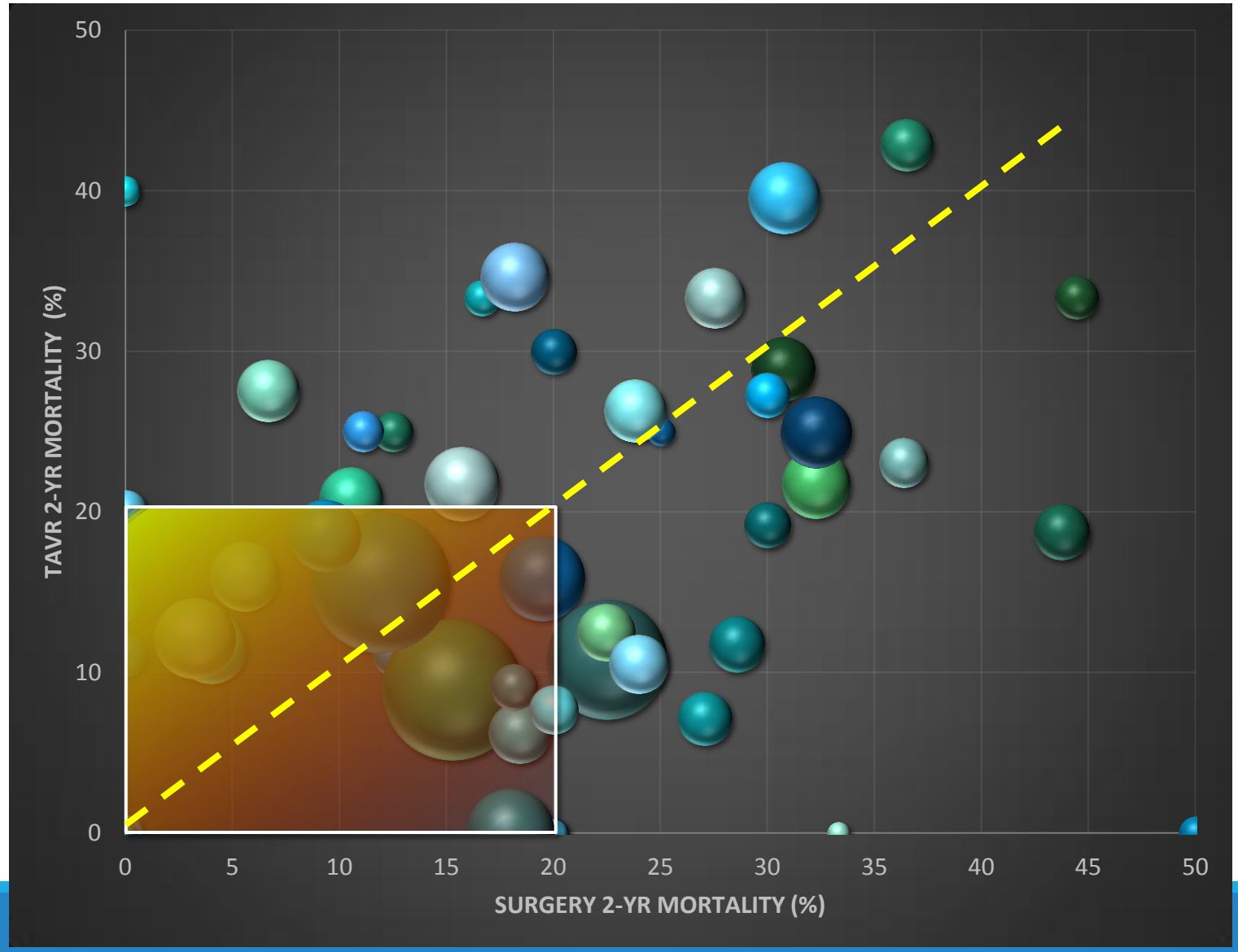
28 states with more SAVR-Only sites than TAVR/SAVR sites!

PARTNER 2 A
TAVR vs. Surgery 2-Yr Mortality by Site



PARTNER 2 A

TAVR vs. Surgery 2-Yr Mortality by Site



The Charge

To provide a broad overview of educational needs and issues for specialists (surgery, IC, imagers) involved in the management of VHD

1. Does training of valvular heart disease specialists need to be standardized?
2. Should training be a defining characteristic of an advanced valve center?
3. If most advanced valve care occurs at AVCs, how will trainees at non-AVCs gain exposure to complex valvular heart disease patients?
4. Is it appropriate to consider a training certificate/year as with advanced heart failure and adult congenital heart disease?

Source Material

- AATS, ACCF, SCAI, STS Training Requirements- 2012/2017
- Literature
- Industry training experience
- Informal survey of FOM's

Survey Respondents

Joe Bavaria

Vinay Badhwar

John Carroll

Ted Feldman

Howie Herrmann

Saibal Kar

Samir Kapadia

Neil Kleiman

Marty Leon

Randy Martin

Craig Miller

Rick Nishimura

Mike Reardon

Rhonda Robb

Kristin Skelton

Vinod Thourani

Larry Wood

How Has Training in TAVR/MitraClip Occurred?

- Industry training- FDA required and device specific
  - TAVR- Edwards Lifesciences, Medtronic
  - Mitral- Abbott Vascular
- A series of ACC/STS joint programs on TAVR
- Society and non society specialty based meetings/workshops
  - TCT, TVT, PCR, PCR London Valve, Zurich Mitral

Journal of the American College of Cardiology
© 2012 by the Society for Cardiovascular Angiography and Interventions, the American Association for Thoracic Surgery, the American College of Cardiology Foundation, and the Society of Thoracic Surgeons
Published by Elsevier Inc.

Vol. 59, No. 22, 2012
ISSN 0735-1097/12/$36.00
doi:10.1016/j.jacc.2012.02.016

COMPETENCE STATEMENT

Multisociety (AAT
Expert Consensus
Operator and Inst
Transcatheter Va
Part 1: Transcath

Knowledge Base and Skills

The critical cornerstone for establishing a transcatheter valve program is the formal collaborative effort between interventional cardiologists and cardiac surgeons. This element is essential for establishing a transcatheter valve program. No one individual, group, or specialty possesses all the necessary skills for best patient outcomes (1,5). The over-arching goal of these programs must be to provide the best possible patient-centered care (1,6).

As these are new techniques, the correlation between operator experience and performance metrics for these procedures has yet to be established. The current pool of trained individuals is comprised predominantly of those who have participated in industry-sponsored trials aimed at device approval. Therefore, the translation of currently available experiences with transcatheter valve therapies to the "real world" has yet to be evaluated in the United States.

Several core concepts should be implemented for all physicians performing these procedures, irrespective of their spe-

Training

Cardiologists must be board certified/eligible in interventional cardiology

Surgeons must be board certified/eligible in thoracic surgery

Additional operators who are trained or experienced in structural heart disease, and have unrestricted hospital privileges in structural procedures, may also be part of the interventional operating team with the interventional cardiologist and cardiovascular surgeon

both facilities and operators (1,11,12). Minimum training for specific procedures and devices will, for the immediate future, be primarily dictated by FDA approval requirements. Simulation is likely to play a significant role in technical training and proficiency maintenance for these evolving procedures (13–17). As these procedures become integrated into mainstream care delivery, the strategy for training will likely need to be revised.

Industry Training

- Site training courses
  - >2,000 clinicians trained US
  - 500 centers US/1,500 Worldwide
  - Initial cases reviewed and proctored
  - Device simulators
- Industry case specialists still in attendance at ~95% of all TAVR and MitraClip cases (>100,000) in US

What Are the Current Training Opportunities?

One year Interventional Cardiology Fellowship- focus on structural

Additional second year IC fellow (PGY 8)

Non ACGME fellowships

- Interventional Cardiology
- Cardiac Surgery

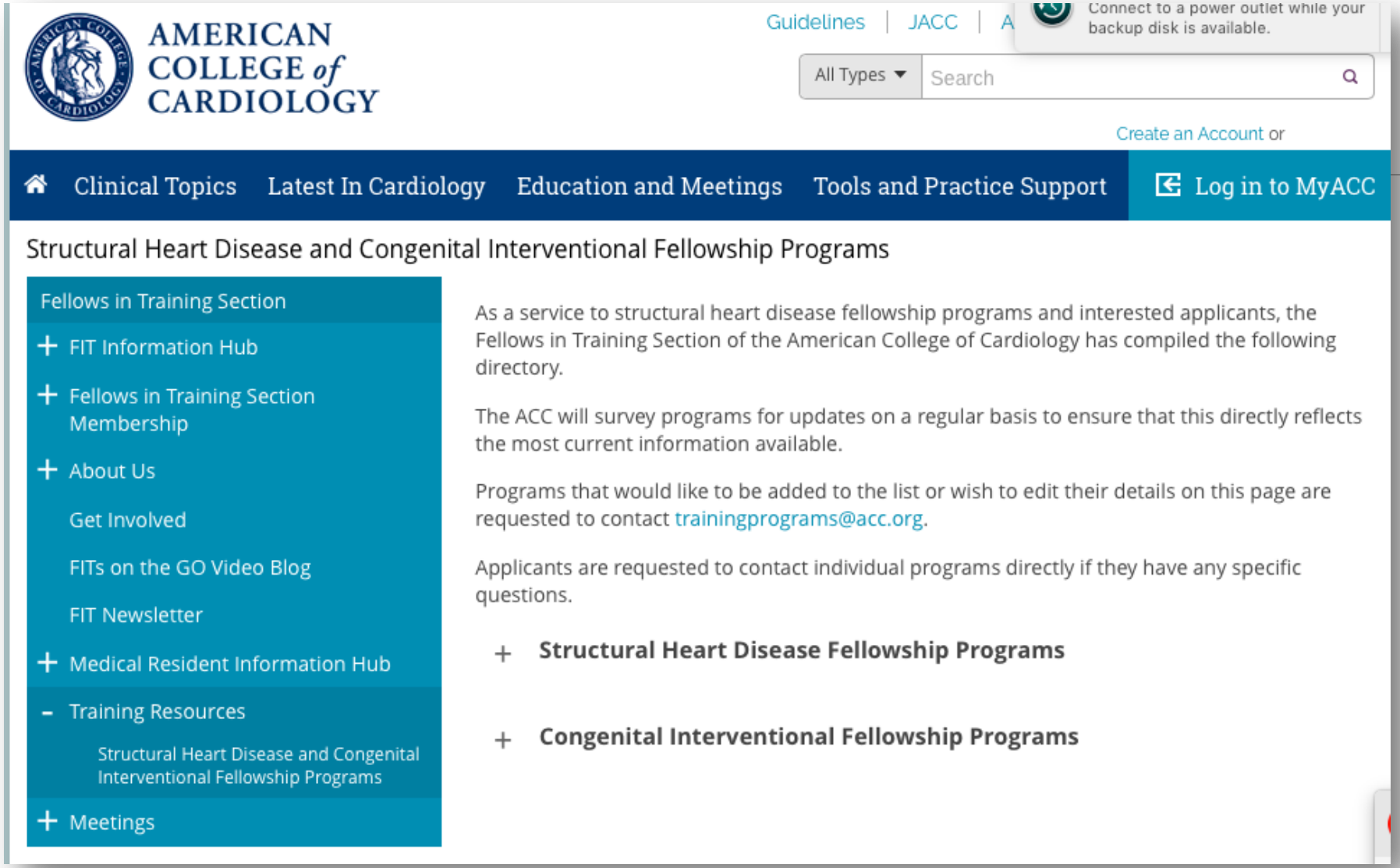
Structural Heart Fellowships
Heart Hospital Baylor Plano

Deborah Tabachnick, MD
Cardiac Surgeon

Sukhdeep Basra, M.D.
Interventional Cardiologist

Funding

- No/limited GME funds available for PGY 8
- Non ACGME funding via industry grants
- Hybrid advanced fellowship/junior faculty position


AMERICAN COLLEGE of CARDIOLOGY
Guidelines | JACC | A
Connect to a power outlet while your backup disk is available.
All Types
Search
Create an Account or
Clinical Topics
Latest In Cardiology
Education and Meetings
Tools and Practice Support
Log in to MyACC
Structural Heart Disease and Congenital Interventional Fellowship Programs
Fellows in Training Section
FIT Information Hub
Fellows in Training Section Membership
About Us
Get Involved
FITs on the GO Video Blog
FIT Newsletter
Medical Resident Information Hub
Training Resources
Structural Heart Disease and Congenital Interventional Fellowship Programs
Meetings
As a service to structural heart disease fellowship programs and interested applicants, the Fellows in Training Section of the American College of Cardiology has compiled the following directory.
The ACC will survey programs for updates on a regular basis to ensure that this directly reflects the most current information available.
Programs that would like to be added to the list or wish to edit their details on this page are requested to contact trainingprograms@acc.org.
Applicants are requested to contact individual programs directly if they have any specific questions.
Structural Heart Disease Fellowship Programs
Congenital Interventional Fellowship Programs

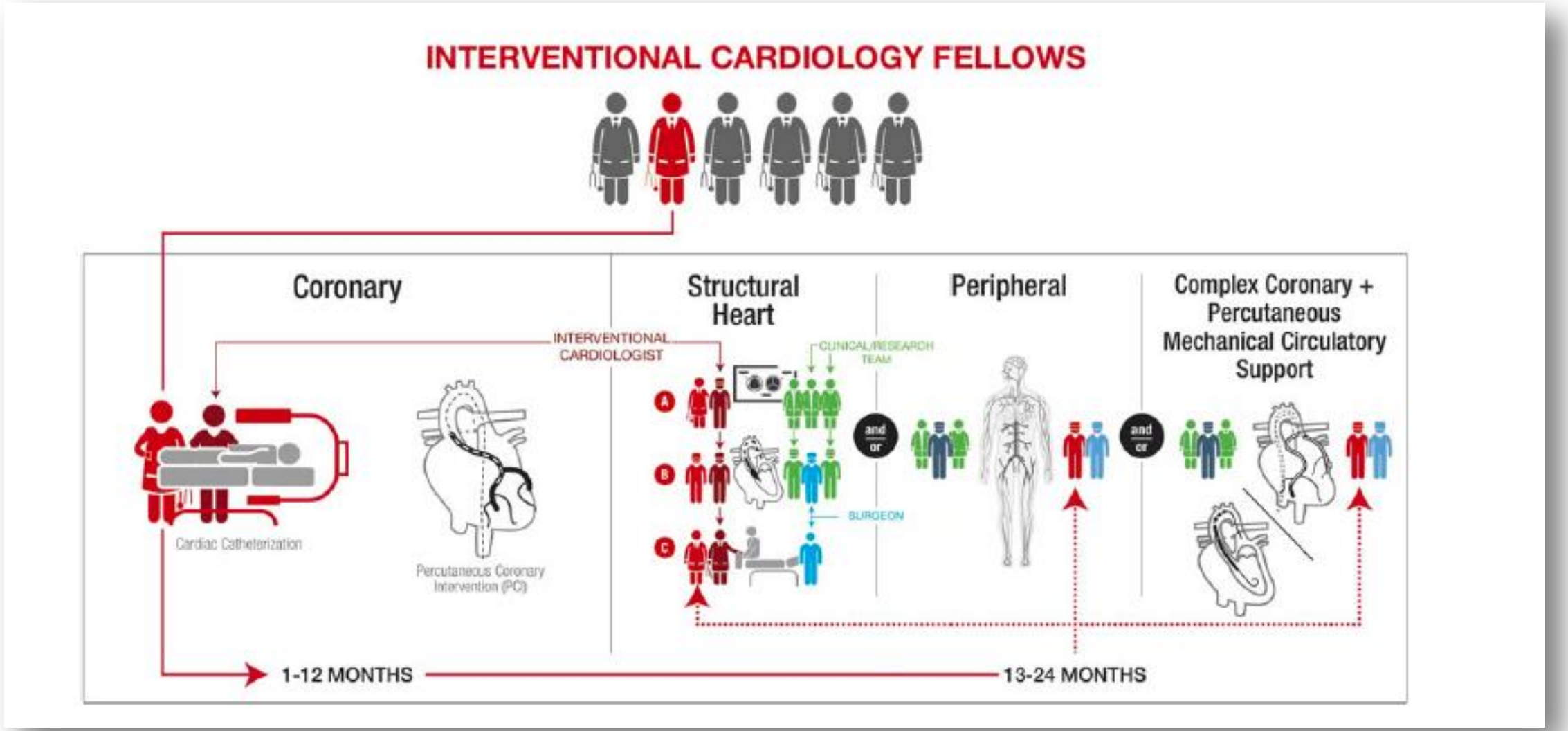
Catheterization and Cardiovascular Interventions 00:00–00 (2016)

Editorial

Accreditation and Funding for a 24-Month Advanced Interventional Cardiology Fellowship Program

A Call-to-Action for Optimal Training of the Next Generation of Interventionalists

Ankur Kalra,[1,2,8,9] MD, Deepak L. Bhatt,[3*] MD, MPH, FSCAI, Duane S. Pinto,[1] MD, MPH, FSCAI, Ajay J. Kirtane,[4] MD, SM, FSCAI, Samir R. Kapadia,[5] MD, Raj R. Makkar,[6] MD, Charanjit S. Rihal,[7] MD, MBA, FSCAI, Neal S. Kleiman,[8,9] MD, FSCAI, and Donald E. Cutlip,[1] MD, FSCAI


INTERVENTIONAL CARDIOLOGY FELLOWS
Coronary
Structural Heart
Peripheral
Complex Coronary + Percutaneous Mechanical Circulatory Support
INTERVENTIONAL CARDIOLOGIST
CLINICAL/RESEARCH TEAM
A
B
C
and or
SURGEON
and or
Cardiac Catheterization
Percutaneous Coronary Intervention (PCI)
1-12 MONTHS
13-24 MONTHS

JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY
VOL. 66, NO. 4, 2015

ISSN 0735-1097/$36.00
PUBLISHED BY ELSEVIER INC.
http://dx.doi.org/10.1016/j.jacc.2015.06.006

FELLOWS-IN-TRAINING & EARLY CAREER PAGE

The Changing Face of Interventional Cardiology Training

A Fellow's Perspective

Harsh Golwala, MD, Sadip Pant, MD, Prafull Raheja, MD

2017 ACC/AATS/SCAI/STS Expert Consensus Statement: Operator and Institutional Requirements for Transcatheter Aortic Valve Replacement

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Richard J. Shemin, MD
Thoralf M. Sundt, III, MD
Vinod H. Thourani, MD

Questions

- Should training be standardized?
- Is it the same/different for:
  - Interventional cardiology?
  - Cardiac surgery?
  - Imaging specialists?
- Should there be a core curriculum?
- What are the key components?
  - Knowledge base
  - Interventional skills
  - Core competencies

Structural Heart Procedures

- TAVR
- MitraClip
- LAA appendage
- PVL closure
- BAV
- BMV
- PFO/ASD closure
- TMVR Replacement/repair
- Pulmonic valve
- Tricuspid Valve
- Alcohol septal ablation
- Pulmonary vein stenting
- Adult Congenital

Questions

1. Should training include an ABIM certificate/exam?
2. What will be the requirements to qualify for an exam?
3. Do you need core competencies in all procedures to be certified
4. What is the role of industry?
   - Device specific?
   - Funding only?
   - None?

Training
Advanced Valve Centers

1. Should training occur only in “Advanced Valve Centers”?
2. Should training program in “Structural Heart” be a requirement to be an AVC?

JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY
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VOL. 65, NO. 17, 2015
ISSN 0735-1097/$36.00
http://dx.doi.org/10.1016/j.jacc.2015.03.035

TRAINING STATEMENT

COCATS 4 Task Force 5: Training in Echocardiography

Endorsed by the Americar

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VOL. 65, NO. 17, 2015
ISSN 0735-1097/$36.00
http://dx.doi.org/10.1016/j.jacc.2015.03.028

TRAINING STATEMENT

COCATS 4 Task Force 7: Training in Cardiovascular Computed Tomographic Imaging

Endorsed by the American Society of Nuclear Cardiology, So
Society of Atherosclerosis Imaging and Prevention, and the

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VOL. 65, NO. 17, 2015
ISSN 0735-1097/$36.00
http://dx.doi.org/10.1016/j.jacc.2015.03.026

TRAINING STATEMENT

COCATS 4 Task Force 10: Training in Cardiac Catheterization

Endorsed by the Society for Cardiovascular Angiography and Interventions