Evolving Valve Management Strategies Roundtable 2016

Is it time to formalize the concept of an Advanced Valve Center?

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Advanced Valve Center Multi-society writing committee (AATS,ACC,ASE,SCAI,STS)

Multi-society (AATS, ACC, ASE, SCAI and STS) Writing Committee: Advanced Valve Centers

WRITING COMMITTEE ROSTER

Writing Committee Chairs	Society	Title	Institution
Rick A. Nishimura, MD *Chair*	ACC	Judd and Mary Morris Leighton Professor of Medicine	Mayo Clinic

Writing Committee Members	Society	Title	Institution
Thoralf M. Sundt, MD	AATS	President, AATS Chief, Division of Cardiac Surgery	Massachusetts General Hospital
John D. Carroll, MD	ACC	Professor of Medicine	University of Colorado Denver
Michael J. Mack, MD	ACC	Medical Director, Cardiovascular Surgery	The Heart Hospital Baylor Plano
Laura Mauri, MD	ACC	Professor, Harvard Medical School	Brigham and Women's Hospital
William R. Miranda, MD	ACC	Fellow in Training	Mayo Clinic
Patrick O'Gara, MD	ACC	Director, Clinical Cardiology Professor, Harvard Medical School	Brigham and Women's Hospital
Stephen H. Little, MD	ASE	Associate Professor	Houston Methodist
Clifford J. Kavinsky, MD, PhD	SCAI	Professor of Medicine	Rush University Medical Center
Joseph E. Bavaria, MD	STS	President, STS Director, Thoracic Aortic Surgery	Hospital of the University of Pennsylvania

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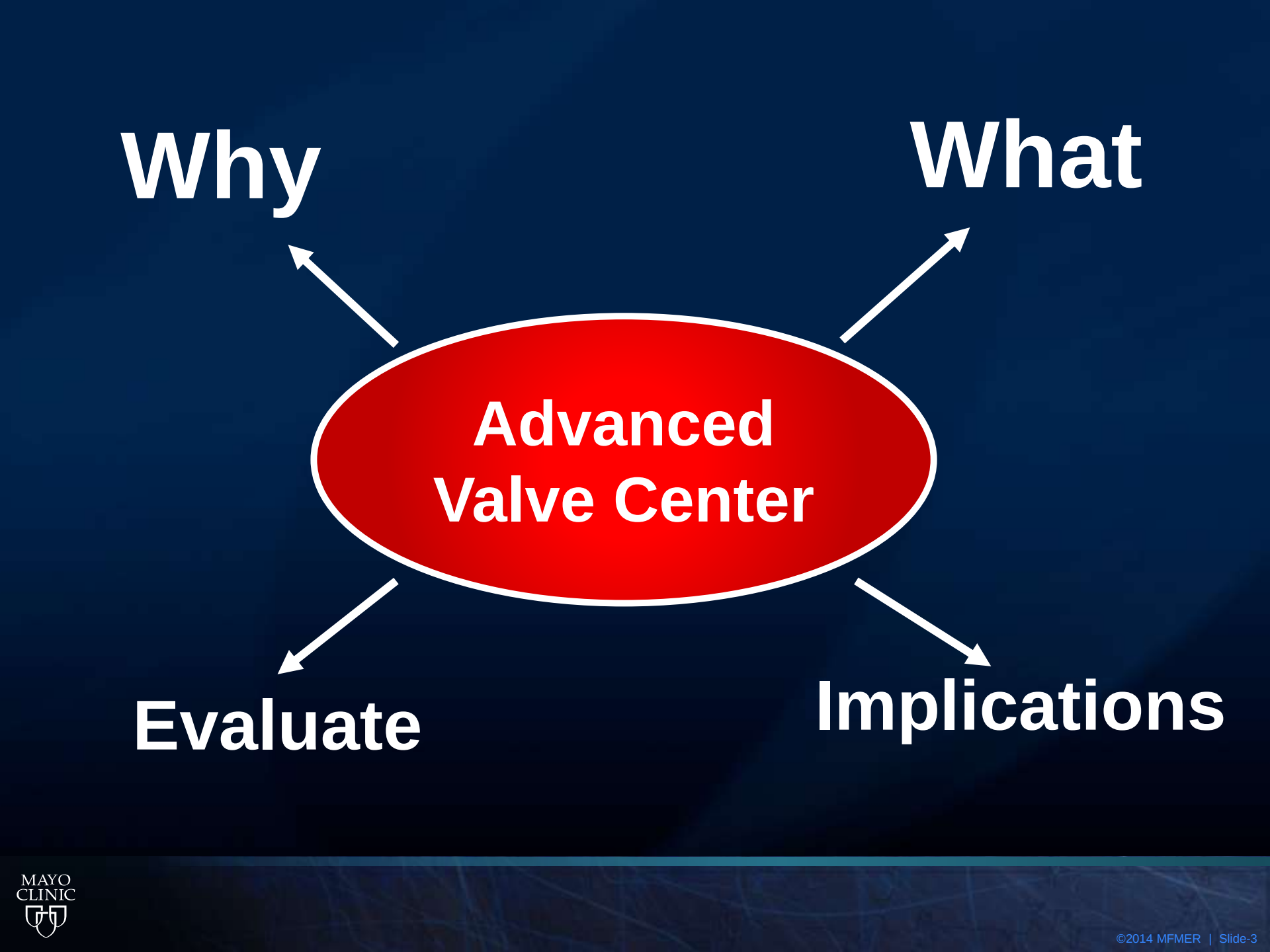

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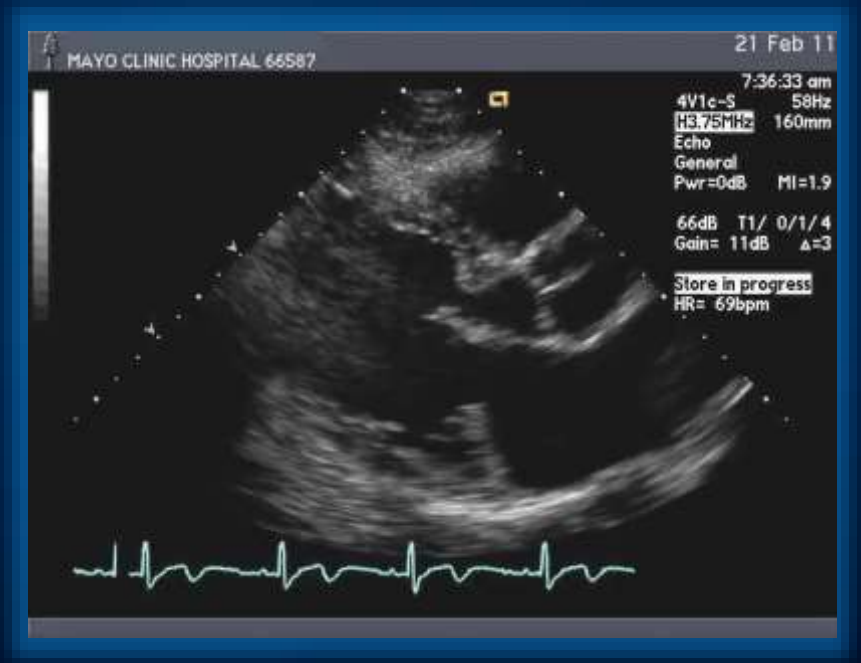
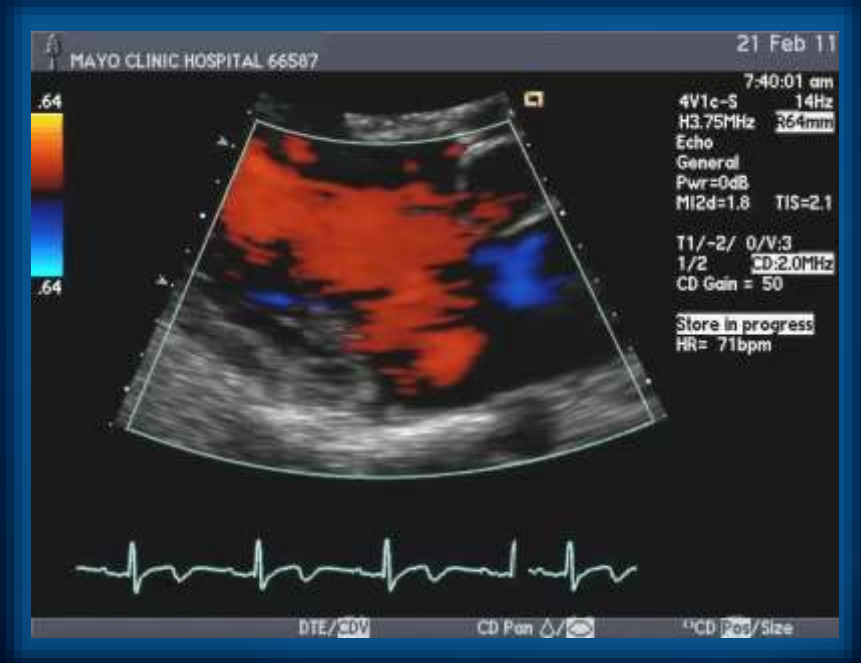
44 y/o woman : asymptomatic





LVEDD 55

LVESD 35

Guidelines for the Management of Patients With Valvular Heart Disease: Executive Summary A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Committee on Management of Patients With Valvular Heart Disease)

Robert O. Bonow, Blase Carabello, Antonio C. de Leon, Jr, L. Henry Edmunds, Jr, Bradley J. Fedderly, Michael D. Freed, William H. Gaasch, Charles R. McKay, Rick A. Nishimura, Patrick T. O'Gara, Robert A. O'Rourke, Shahbudin H. Rahimtoola, James L. Ritchie, Melvin D. Cheitlin, Kim A. Eagle, Timothy J. Gardner, Arthur Garson, Jr, Raymond J. Gibbons, Richard O. Russell, Thomas J. Ryan and Sidney C. Smith, Jr

1998

3. Asymptomatic Patients With Normal Left Ventricular Function. Repair of a severely regurgitant valve may be contemplated in an asymptomatic patient with normal LV function to preserve LV size and function and prevent the sequelae of chronic MR. Although there are no data with which to recommend this approach to all patients, the committee recognizes that some experienced centers are moving in this direction when there is a high likelihood of successful repair. This approach is often recommended in

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ACC/AHA PRACTICE GUIDELINES

ACC/AHA 2006 Guidelines for the Management of Patients With Valvular Heart Disease

A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Writing Committee to Revise the 1998 Guidelines for the Management of Patients With Valvular Heart Disease)

Developed in Collaboration With the Society of Cardiovascular Anesthesiologists
Endorsed by the Society for Cardiovascular Angiography and Interventions and the Society of Thoracic Surgeons

Class IIa

1. **MV repair is reasonable in experienced surgical centers for asymptomatic patients with chronic severe MR* with preserved LV function (ejection fraction greater than 0.60 and end-systolic dimension less than 40 mm) in whom the likelihood of successful repair without residual MR is greater than 90%.** ***(Level of Evidence: B)***

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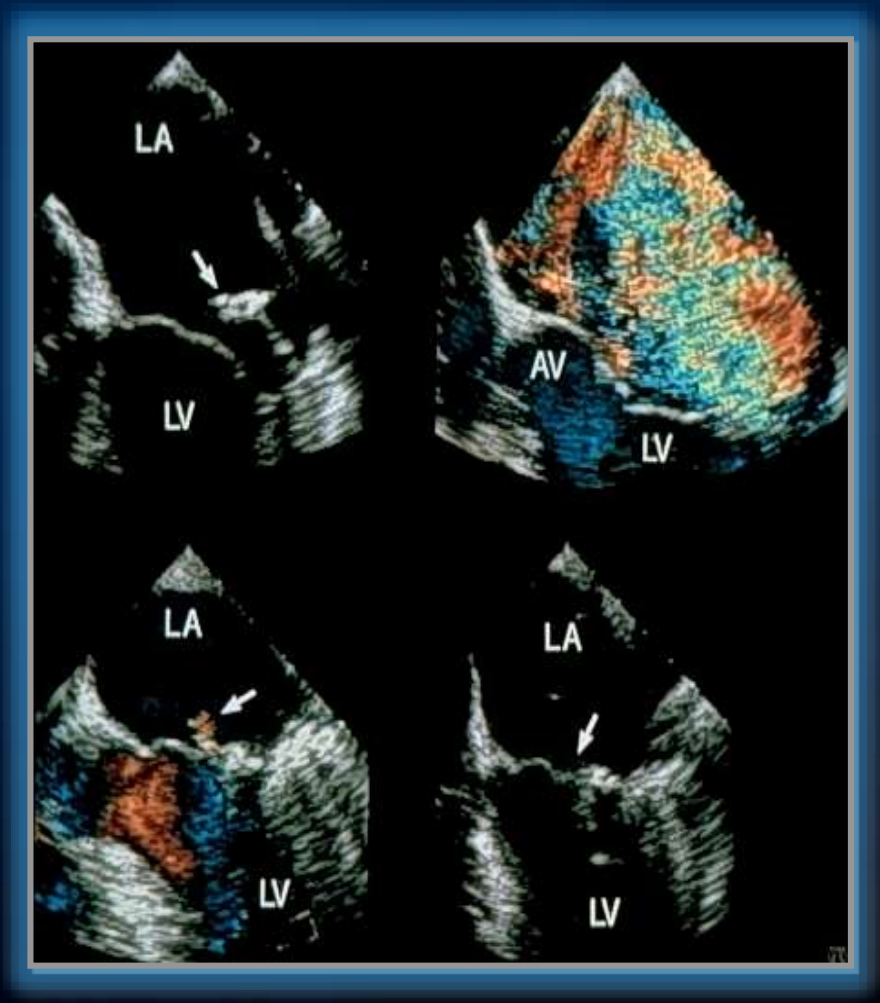
Mitral repair versus replacement



Lower operative risk

Fewer operative complications

Better long term outcome

Best for the patient

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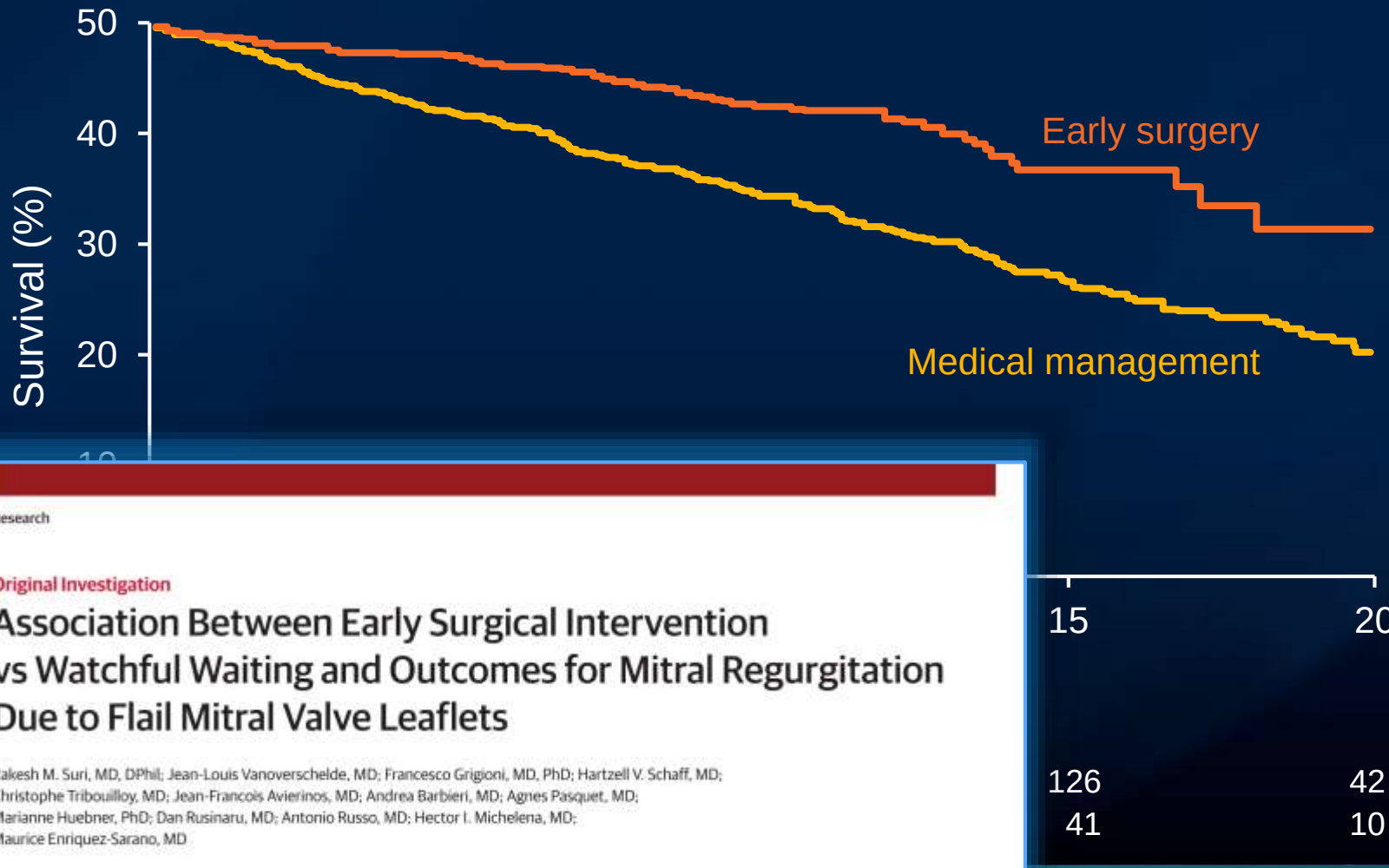
Early Surgical Intervention for Mitral Regurgitation Due to Flail Leaflets



Research

Original Investigation

Association Between Early Surgical Intervention vs Watchful Waiting and Outcomes for Mitral Regurgitation Due to Flail Mitral Valve Leaflets

Rakesh M. Suri, MD, DPhil; Jean-Louis Vanoverschelde, MD; Francesco Grigioni, MD, PhD; Hartzell V. Schaff, MD; Christophe Tribouilloy, MD; Jean-Francois Avierinos, MD; Andrea Barbieri, MD; Agnes Pasquet, MD; Marianne Huebner, PhD; Dan Rusinaru, MD; Antonio Russo, MD; Hector I. Michelena, MD; Maurice Enriquez-Sarano, MD

Suri: JAMA 310:609, 2013

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2014 AHA/ACC Guideline for the Management of Patients With Valvular Heart Disease

A Report of the American College of Cardiology/American Heart Association Task

Class IIa

1. **Mitral valve repair is reasonable in asymptomatic patients with chronic severe primary MR (stage C1) with preserved LV function (LVEF >60% and LVESD <40 mm) in whom the likelihood of a successful and durable repair without residual MR is greater than 95% with an expected mortality less than 1% when performed at a Heart Valve Center of Excellence (39, 87**

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Went home
Had mechanical MVR

Returns with thrombosed valve

Surgical Repair of Posterior Mitral Valve Prolapse: Implications for Guidelines and Percutaneous Repair

Johnston DR et al. Ann Thorac Surg 2010;89:1385–94)

Douglas R. Johnston, MD, A. Marc Gillinov, MD, Eugene H. Blackstone, MD, Brian Griffin, MD, William Stewart, MD, Joseph F. Sabik III, MD, Tomislav Mihaljevic, MD, Lars G. Svensson, MD, PhD, Penny L. Houghtaling, MS, and Bruce W. Lytle, MD

3,383 patients with primary MR between 1985 and 2008

Repair rate 97%

Operative Mortality 0.07%

A "Repair-All" Strategy for Degenerative Mitral Valve Disease Safely Minimizes Unnecessary Replacement

Goldstone AB et al. Ann Thorac Surg 2015;99:1983–91)

Andrew B. Goldstone, MD, Jeffrey E. Cohen, MD, Jessica L. Howard, BS, Bryan B. Edwards, BE, Alexandra L. Acker, BS, William Hiesinger, MD, John W. MacArthur, Jr, MD, Pavan Atluri, MD, and Y. Joseph Woo, MD

Department of Cardiothoracic Surgery, Stanford University School of Medicine, Stanford, California; and Division of Cardiovascular Surgery, Department of Surgery, Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania

525 consecutive patients with MR between 2002 and 2011

Repair rate 99%

(Ann Thorac Surg 2015;99:1983–91)

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There is no doubt that patient outcomes are better after mitral repair vs MVR

High rates of repair are possible in highly experienced centers

A near 100% repair rate f… a reference center: Implica…

Javier G. Castillo, MD, Anelechi C. Any…

Castillo et al. J…

744 patien…

MR betwe…

Repair rate 99.9%

…c Surg. 2013 Nov;2(6):751-7

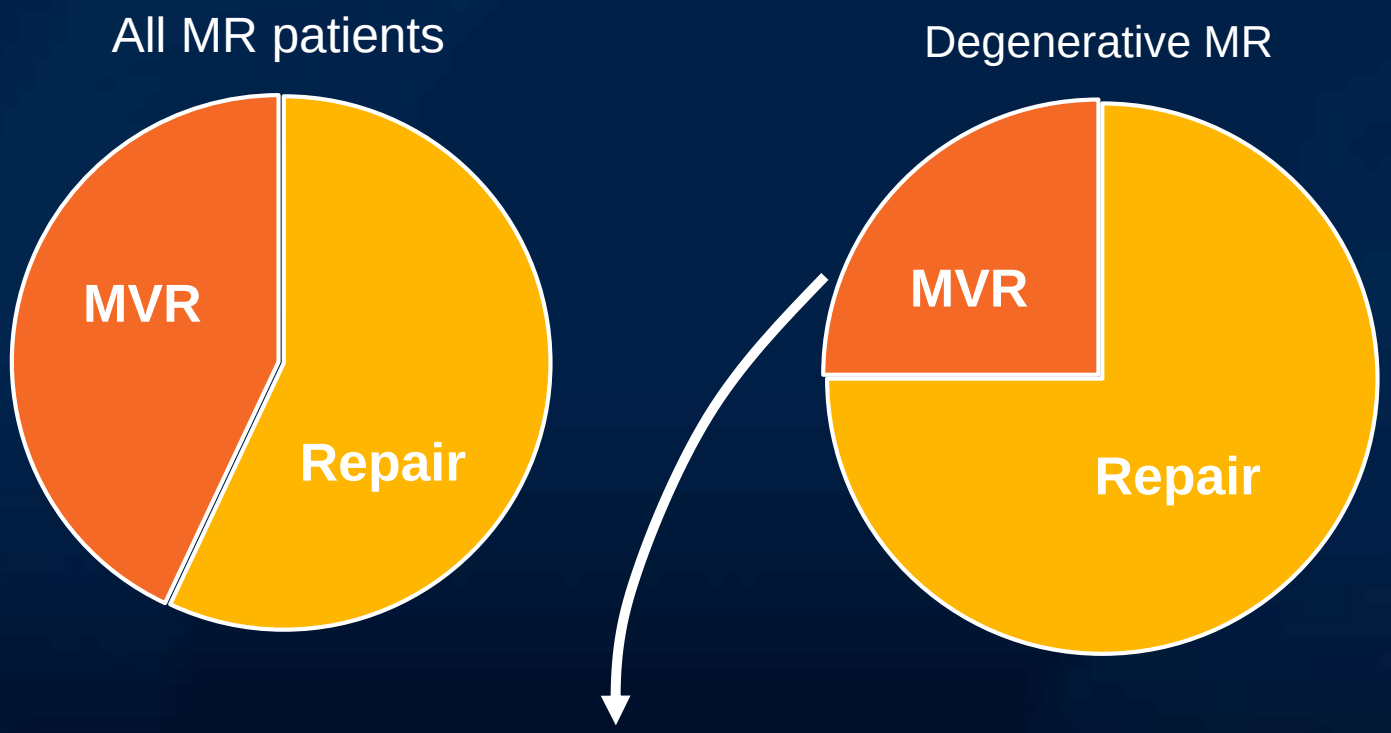
…ral valve surgery

…Gerhard Batz, Anno Diegeler

842 patients with degenerative MR between 2006 and 2012

Repair rate 99.2%

2011-2014: STS database



8000 patients with degenerative MR had mitral valve replacment

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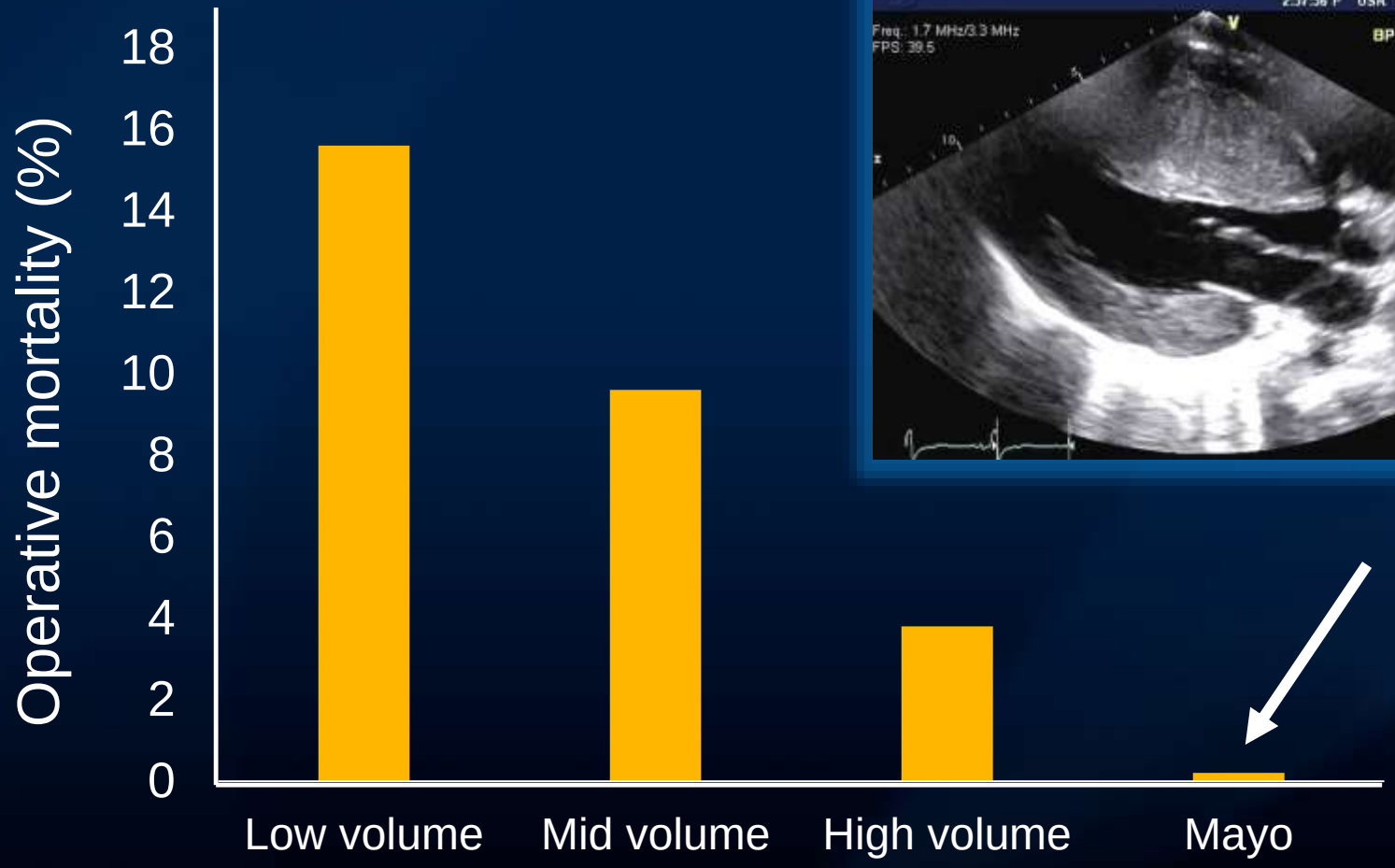
Badhwar ATS 2016:101:2265

Septal Myectomy for HCM



Kim. KL et al JAMA Cardiology 2016

Aging population

Increased awareness

Structural Heart Disease Growing Volumes

Better outcomes surgery

Catheter based interventions

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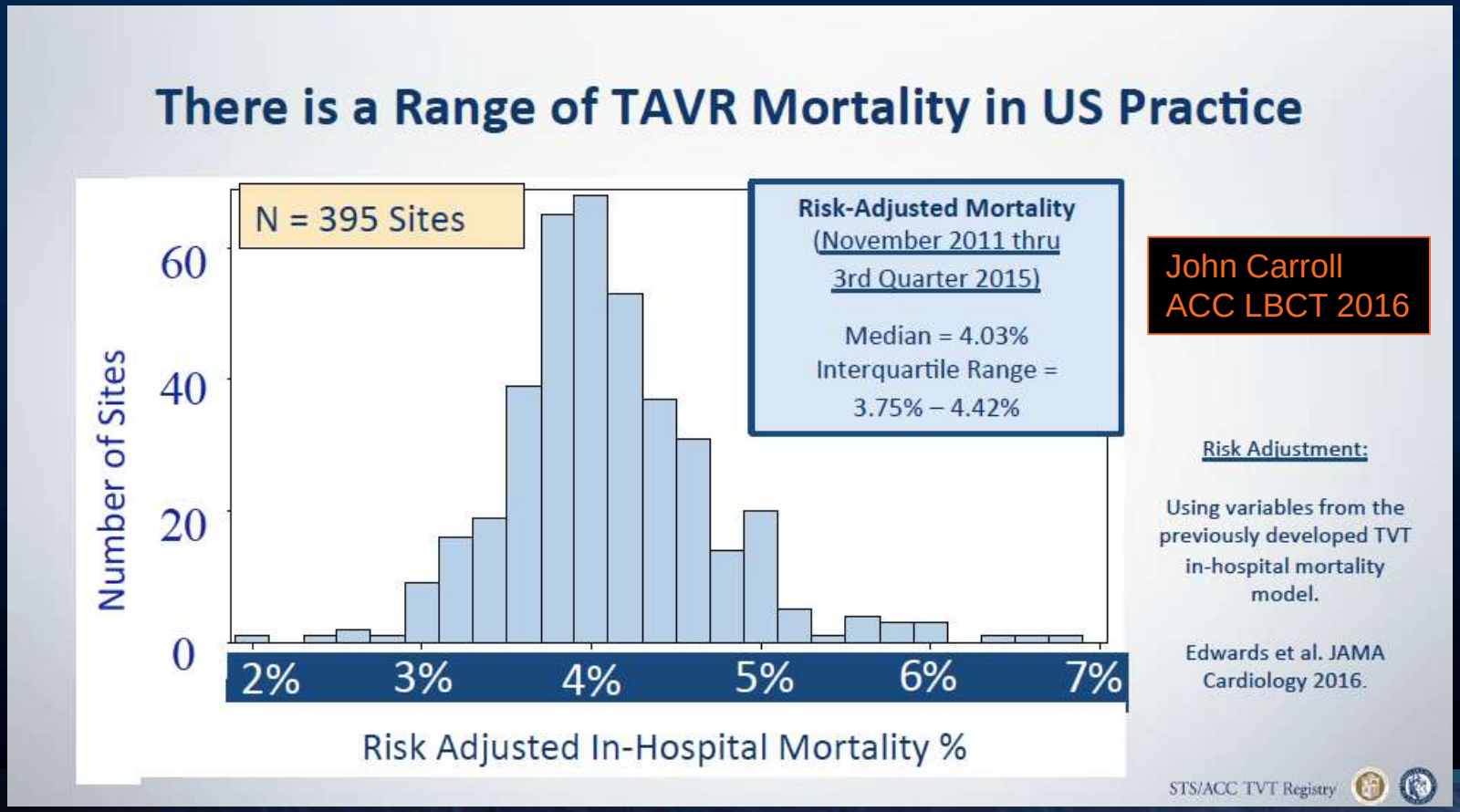
Dr. Carroll will be discussing the wide range of expertise for all procedures

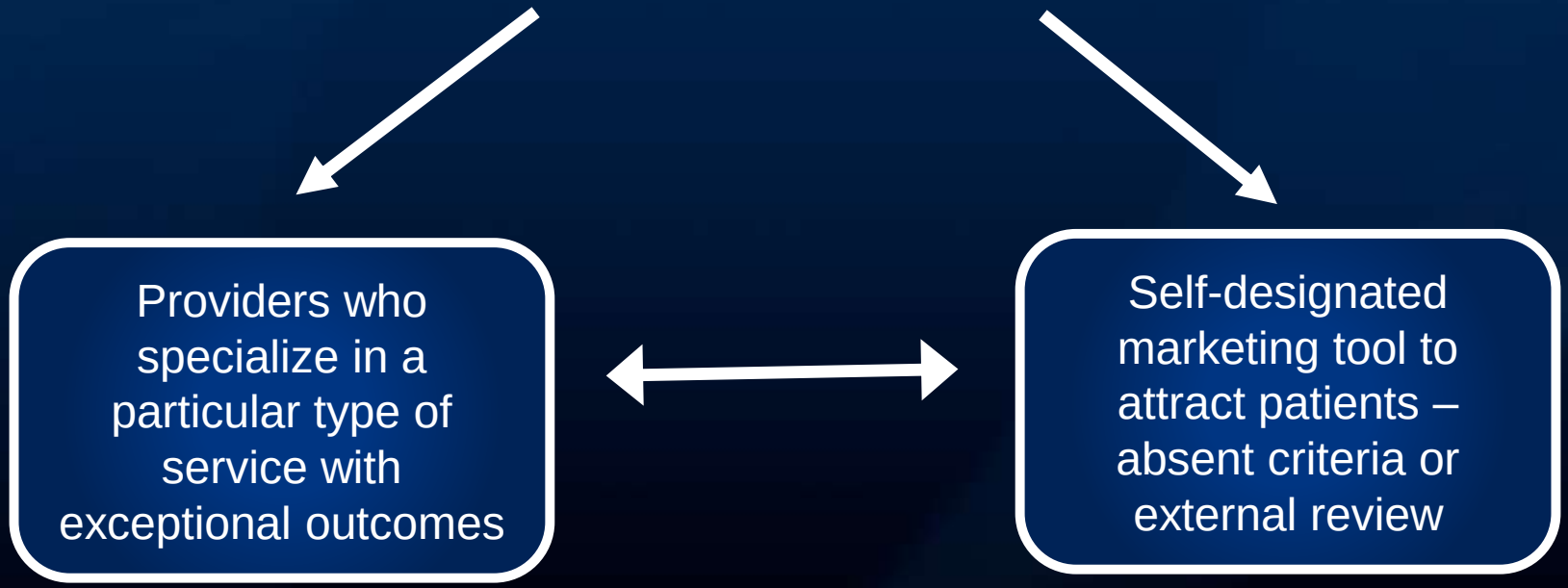


"Center of Excellence"

1991

CMS Medicare Participating Heart Bypass Center Demonstration Project

Team with CMS to negotiate a package price



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"Center of Excellence"

Acute Care

Stroke Centers – Dr. Alberts

Trauma Centers

STEMI systems of care

Service Line Care

~~Cancer centers~~

Bariatric surgery

"directed at the facility to maximize patient safety"
"overall was a good thing to do because it made many places who should not be doing it impossible to do and strengthened other centers who met the criteria for center of excellence"

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2014 AHA/ACC Guideline for the Management of Patients With Valvular Heart Disease

A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines

You guys can't do that – think of the political and financial ramifications…

The needs of the patient come first

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