

A Heart Team: How to play a Win-Win Game?

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Concept of Heart Team

The concept of the heart team as we perceive it should evolve to an understanding that it is simply a convergence of experts united by a common goal

The distinction between cardiologist and cardiac surgeon is becoming more and more fuzzy

78% of cardiothoracic surgeons perform TAVR as a part of team

So the landscape is changing

Why Heart Team?

- Places patient-centric care at the forefront through a balanced complimentary approach to decision making
- Shared decision making may reduce culpability for decisions gone wrong and medico-legal litigations
- Optimize resource allocation conducive to improving survival, quality of life, and overall cost benefit values
- Boosts patient confidence regarding the entire treatment process

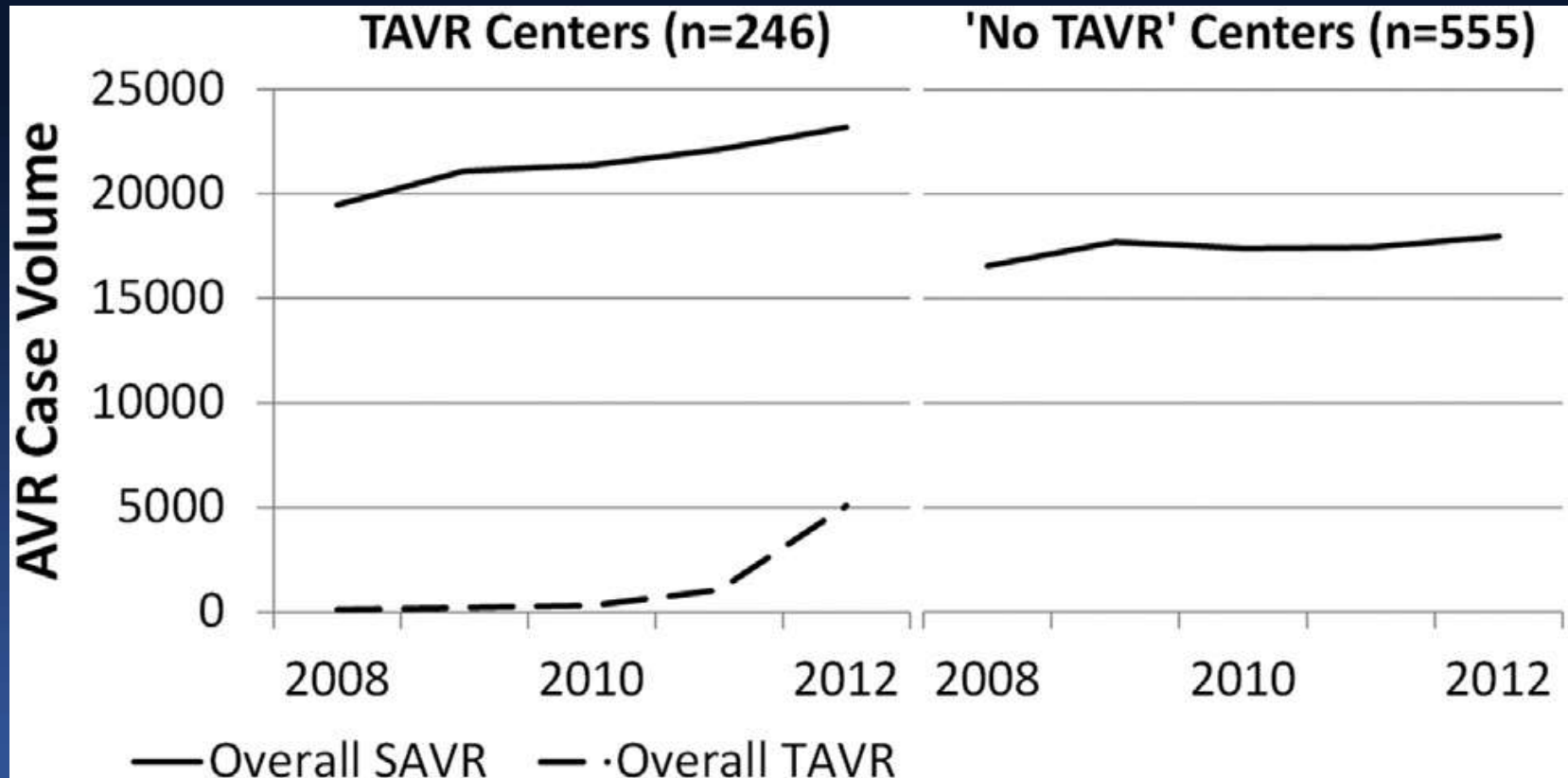
TAVR program has resulted in increase in all treatment modalities

The Association of Transcatheter Aortic Valve Replacement Availability and Hospital Aortic Valve Replacement Volume and Mortality in the United States

J. Matthew Brennan, MD, MPH, David R. Holmes, MD, Matthew W. Sherwood, MD, Fred H. Edwards, MD, John D. Carroll, MD, Fred L. Grover, MD, E. Murat Tuzcu, MD, Vinod Thourani, MD, Ralph G. Brindis, MD, David M. Shahian, MD, Lars G. Svensson, MD, Sean M. O'Brien, PhD, Cynthia M. Shewan, PhD, Kathleen Hewitt, James S. Gammie, MD, John S. Rumsfeld, MD, PhD, Eric D. Peterson, MD, MPH, and Michael J. Mack, MD

Ann Thorac Surg 2014;98:2016-22

Temporal relation of AVR in TAVR vs non TAVR centers



Ann Thorac Surg 2014;98:2016-22

Impact of TAVR on SAVR in Michigan

The Midterm Impact of Transcatheter Aortic Valve Replacement on Surgical Aortic Valve Replacement in Michigan

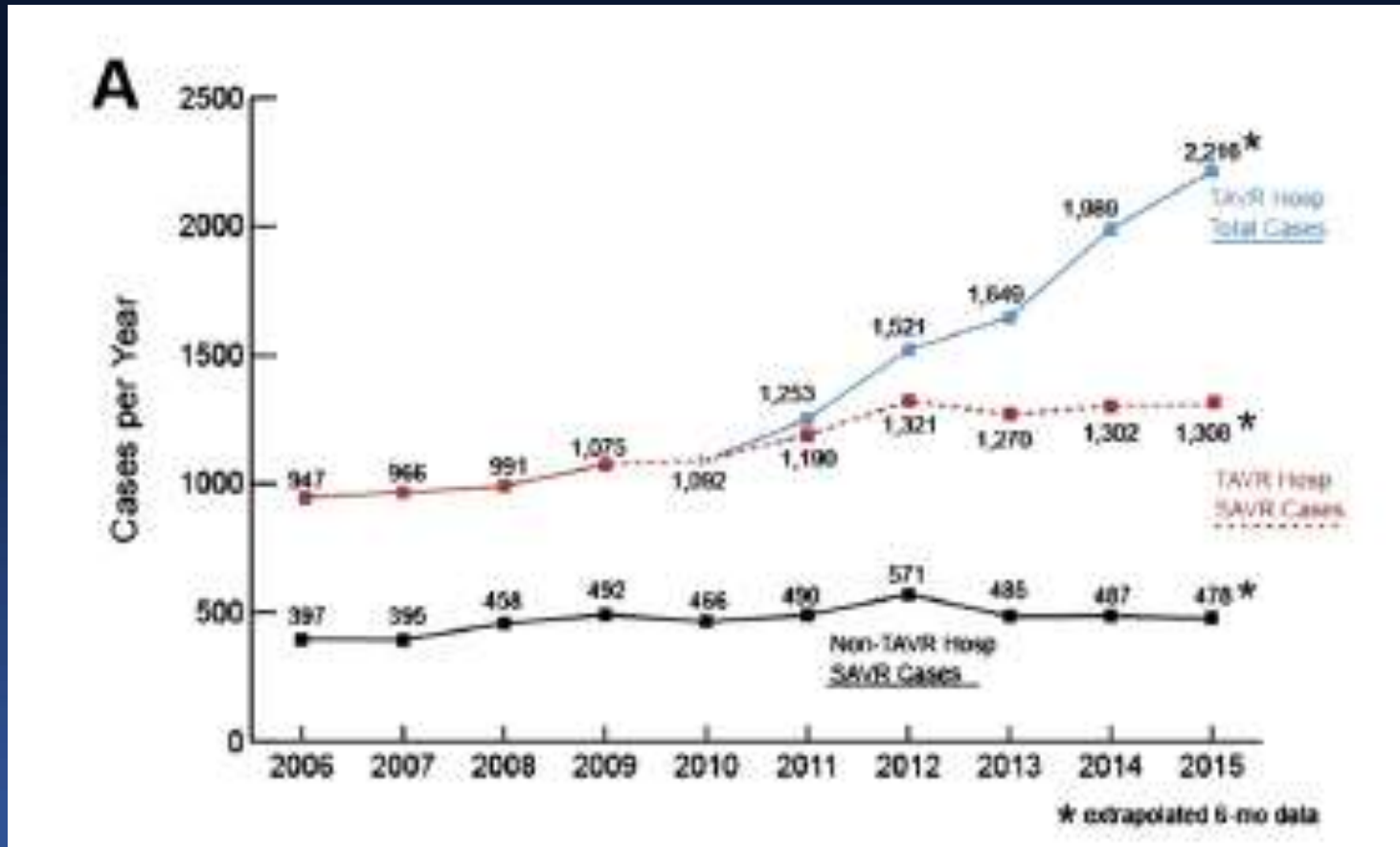


Himanshu J. Patel, MD, Morley A. Herbert, PhD, Gaetano Paone, MD, MHSA, John C. Heiser, MD, Francis L. Shannon, MD, Patricia F. Theurer, RN, BSN, Gail F. Bell, RN, MSN, and Richard L. Prager, MD, for the Michigan Society of Thoracic and Cardiovascular Surgeons

University of Michigan Cardiovascular Center, Ann Arbor, Michigan; Southwest Data Consultants, Dallas, Texas; Division of Cardiac Surgery, Henry Ford Hospital, Detroit, Michigan; Division of Cardiac and Thoracic Surgery, Spectrum Health, Grand Rapids, Michigan; Division of Cardiovascular and Thoracic Surgery, William Beaumont Hospital, Royal Oak, Michigan; and The Michigan Society of Thoracic and Cardiovascular Surgeons Quality Collaborative, Ann Arbor, Michigan

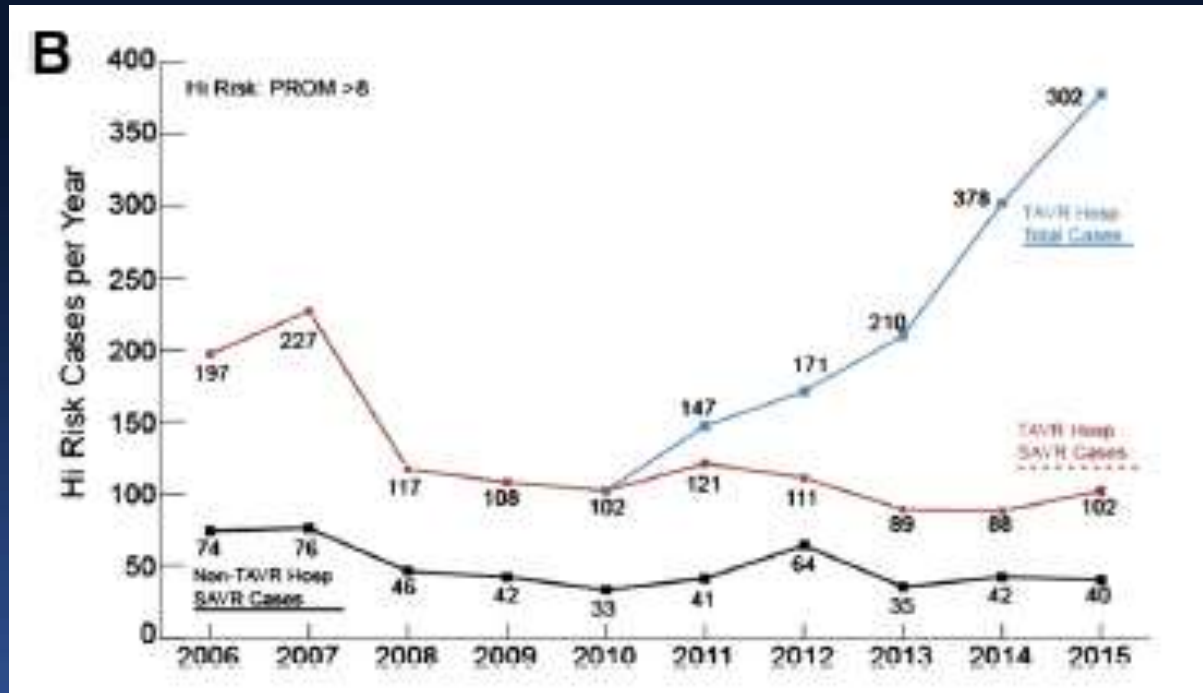
Patel HJ et al Ann Thorac Surg 2016;102:728–34

Impact of TAVR on SAVR in Michigan



Patel HJ et al Ann Thorac Surg 2016;102:728-34

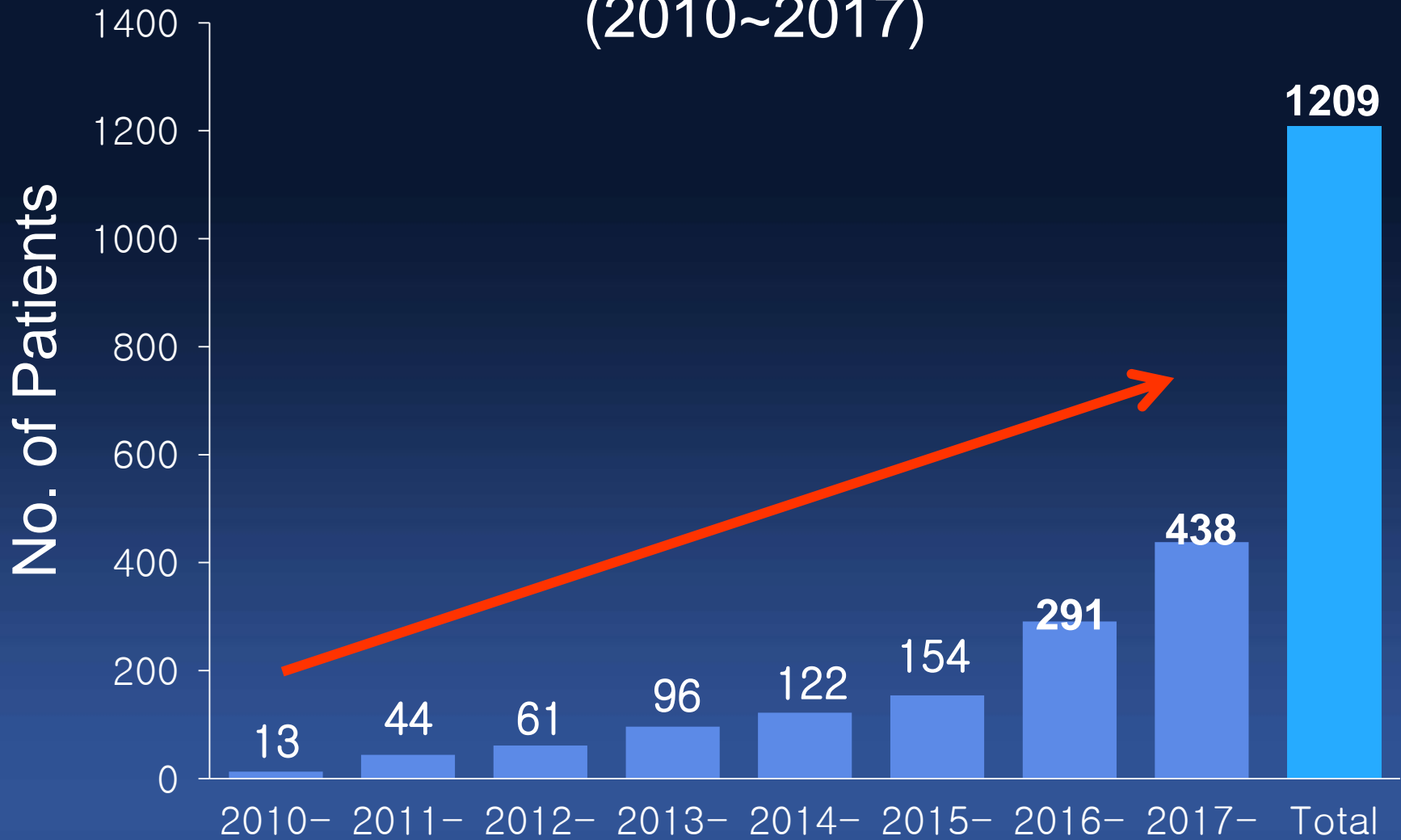
Impact of TAVR on SAVR in Michigan



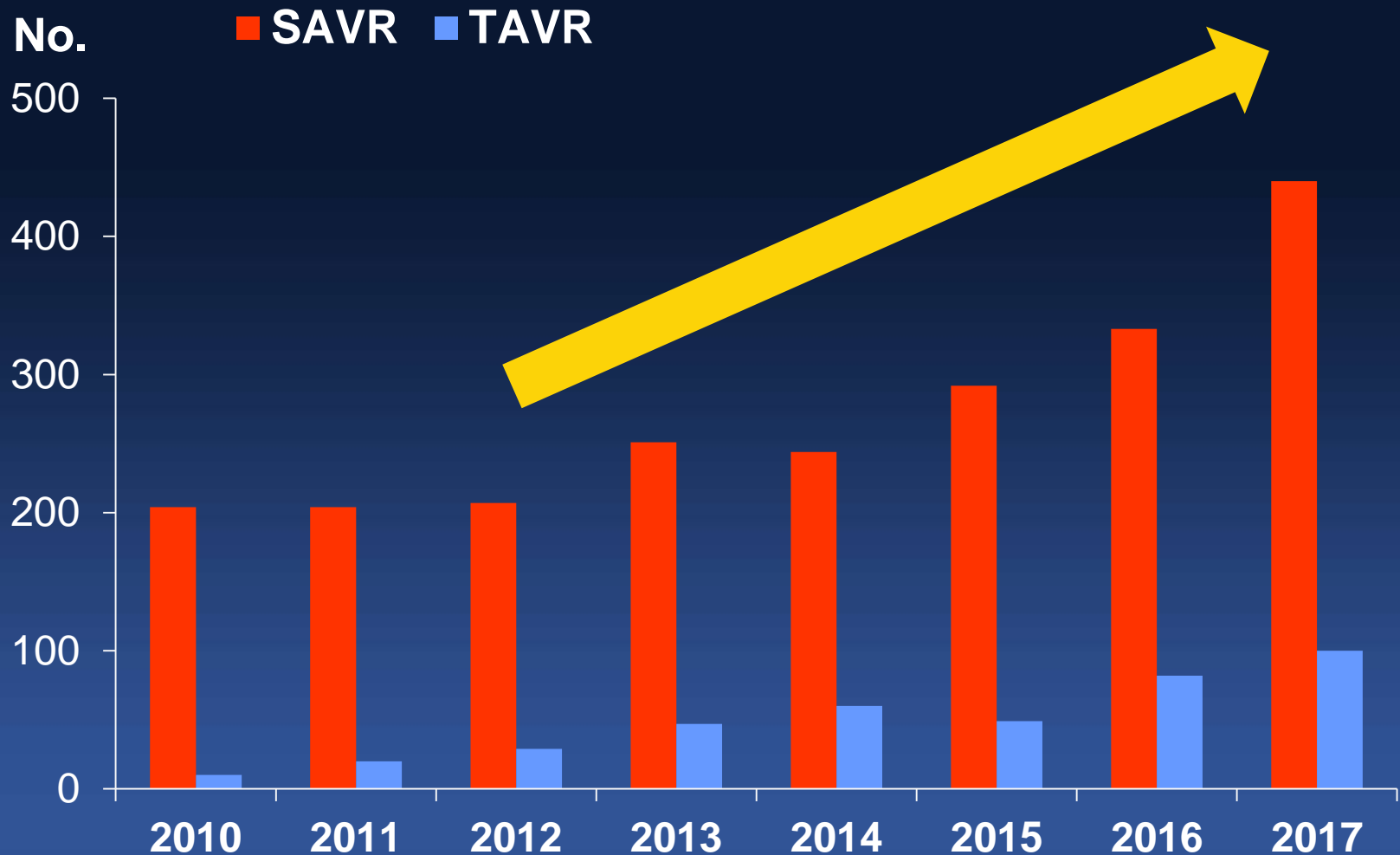
Patel HJ et al Ann Thorac Surg 2016;102:728-34

TAVR in Korea

(2010~2017)

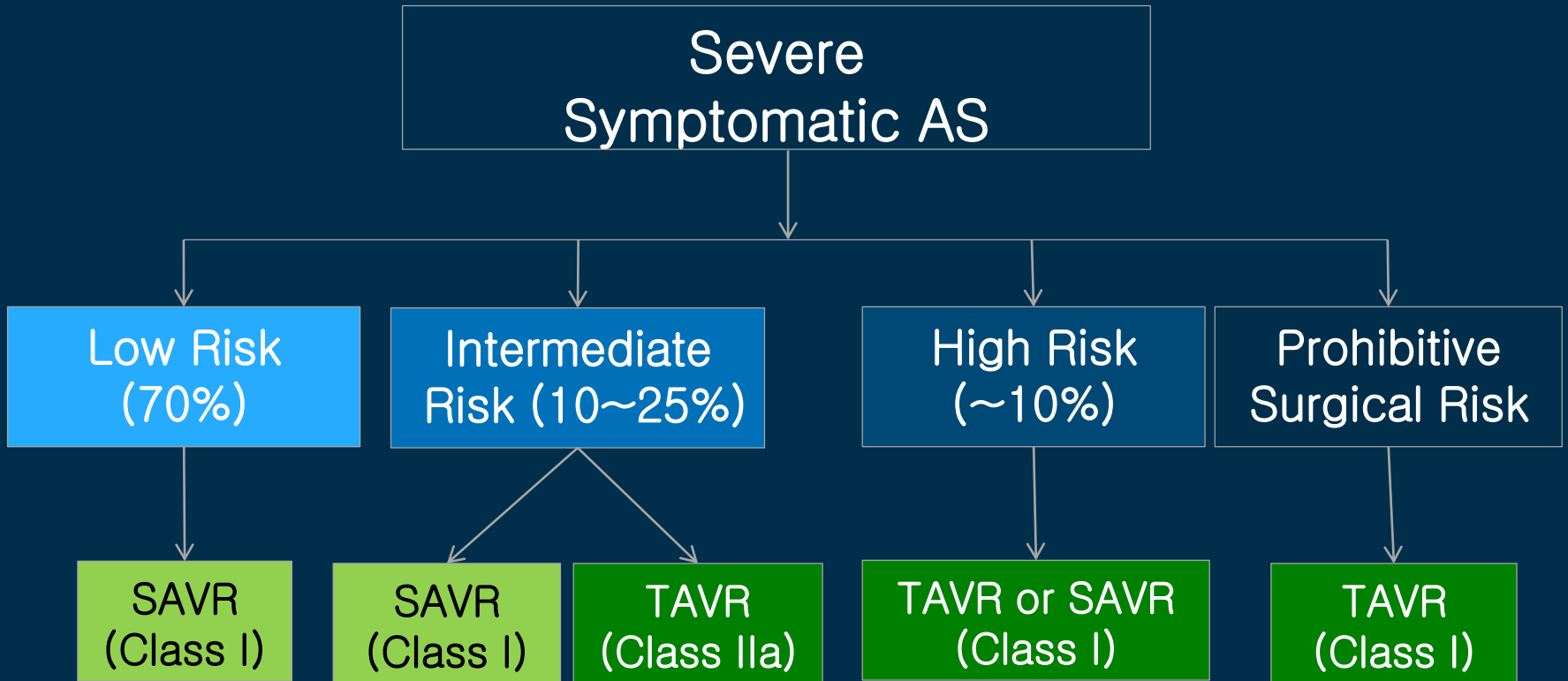


Aortic Valve Replacement in AMC



2017 AHA/ACC Guideline

Focused Update



Indication Changes are Looming in the Horizon

NOTION: 5-Year Outcomes for TAVR Match SAVR in Low-Risk Patients

“ At 5 years there are no differences in all-cause death, stroke, myocardial infarction, or all of these combined between low-risk elderly patients treated with TAVR or SAVR in the NOTION trial ”

NOTION: 5-Year Outcomes for TAVR Match SAVR in Low-Risk Patients

“ PPM implantation at 5 years was 41.8% in TAVR patients increasing from 34% at 30 days. In the SAVR group, 5 year PPM rate was just 8.4%”

Ongoing PARTNER 3

- The safety and effectiveness of the SAPIEN 3 transcatheter heart valve in low risk patients with aortic stenosis
- Enrollment is completed
- Results to be released in ACC 2019 annual meeting

Pending issues regarding expansion to lower risk patients

- Can we overlook the significantly higher rate of PPM implantation
- What about durability?
 - Upto 5 years seems pretty good
 - After 5 years the results are conflicting.
- Issues relating to paravalular leaks are being resolved
- Leaflet thrombosis
 - May be more concerning (12% vs 3%)
 - Leaflet thrombosis may hasten valve deterioration and increased gradient

It all boils down to who will do well with TAVR?

Anatomic and all aspects of clinical factors should be considered in the final decision regarding indication and contraindication

”The Heart Team will sort this out!”

Win Win strategy

Surgeons are now more familiar with endovascular techniques

The surgical experience combined with interventional skills of surgeons may improve the outcomes of TAVR in synergy with the cardiology colleagues

Win Win strategy

Central to the concept of a win win strategy is an understanding that surgeons and cardiologists are not mutually exclusive but are complementary in their relationship

Future direction

- TAVR is here to stay
- The Heart Team should adopt to the changing landscape
- New generation of cardiac surgeons dedicated to endovascular solutions will spear head further advances in conjunction with cardiology colleagues



Thank You !!