

# **INNOVAZIONI NELLA PIASTRA OPERATORIA: L'EMODINAMICA**

**G. ROSATO**

# **TRE BUONI MOTIVI PER AVERE L'EMODINAMICA NELLA PIASTRA OPERATORIA**

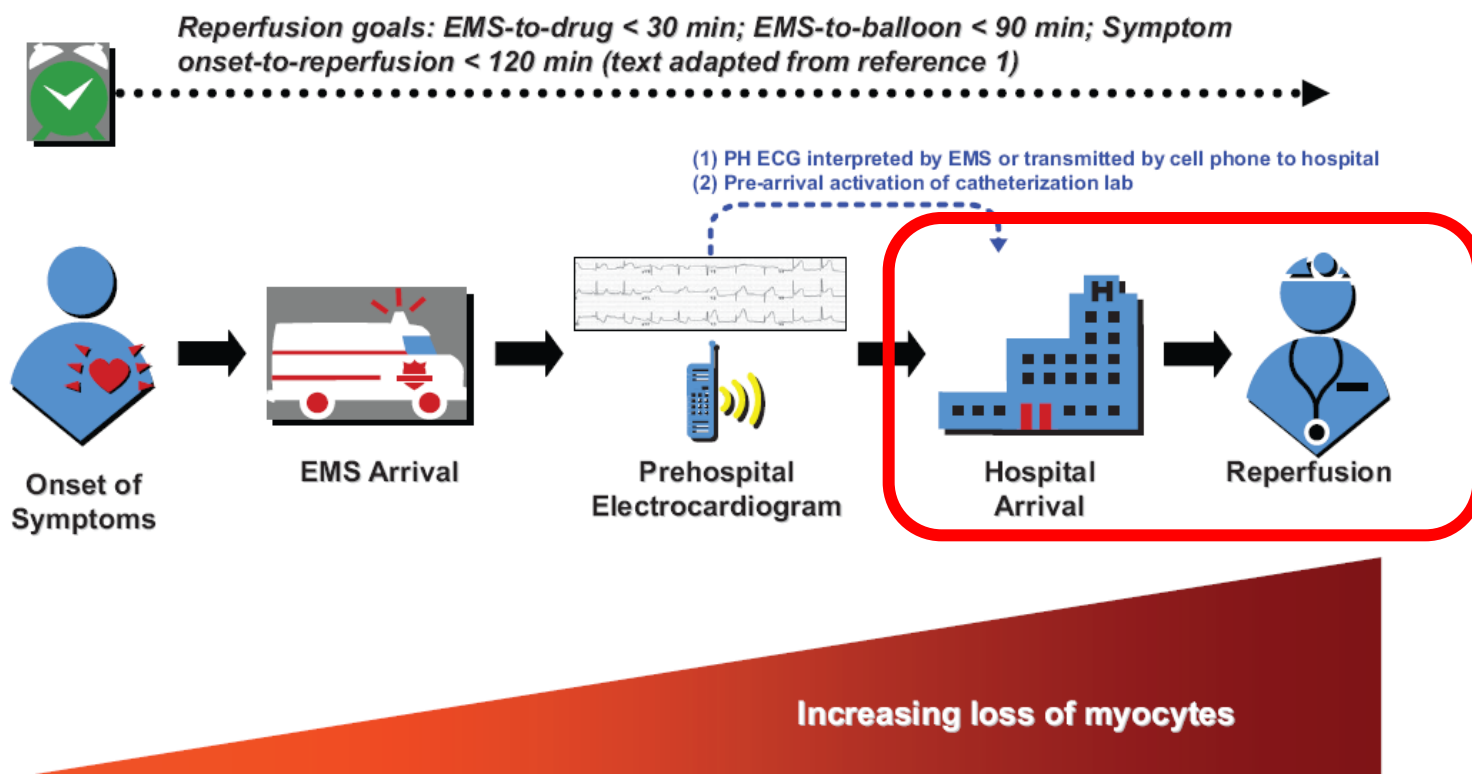
## **1. TEMPESTIVITA' DELL'INTERVENTO NELLE CORONAROPATIE ACUTE**

- A. ACCESSO DIRETTO DEI PAZIENTI CON IMA E CORONAROPATIE ACUTE CON INSTABILITA' EMODINAMICA DAL PRONTO SOCCORSO (FAST TRACK)**
- B. CONTIGUITA' E VICINANZA CON LE SALE OPERATORIE DELLA CARDIOCHIRURGIA**
- C. CONTIGUITA' E VICINANZA CON LA CARDIORIANIMAZIONE**



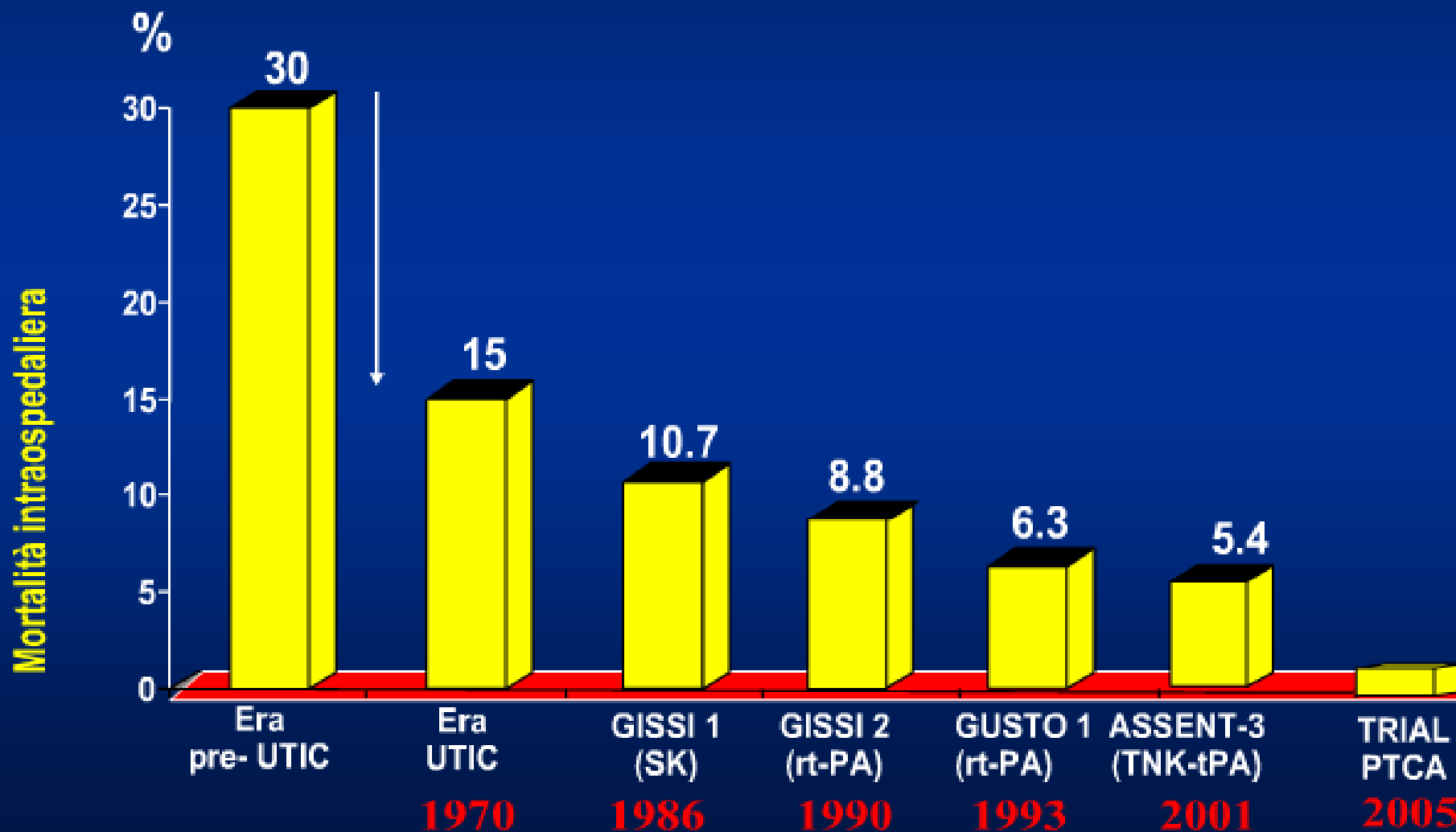
## **Implementation and Integration of Prehospital ECGs Into Systems of Care for Acute Coronary Syndrome**

A Scientific Statement From the American Heart Association  
Interdisciplinary Council on Quality of Care and Outcomes Research,  
Emergency Cardiovascular Care Committee, Council on Cardiovascular  
Nursing, and Council on Clinical Cardiology





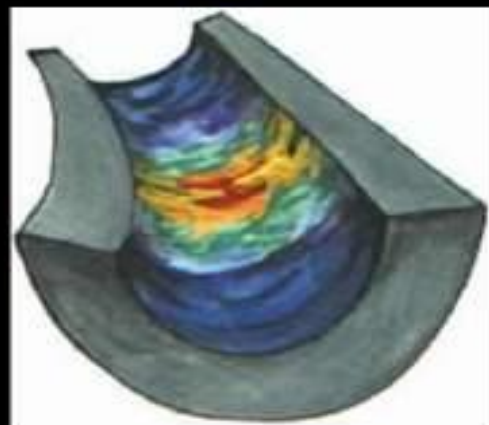
# DALLA ISTITUZIONE DELLE UTIC AI GRANDI TRIAL IMA: MORTALITA' INTRAOSPEDALIERA



## **TRE BUONI MOTIVI PER AVERE L'EMODINAMICA NELLA PIASTRA OPERATORIA**

### **2. TRATTAMENTO DI PAZIENTI COMPLESSI CON CORONAROPATIA COMPLESSA**

# Morphology vs. Activity Imaging



Active and  
inflamed  
plaque

Thermography,  
Spectroscopy, Chemography,  
MRI with targeted CM

**Activity**



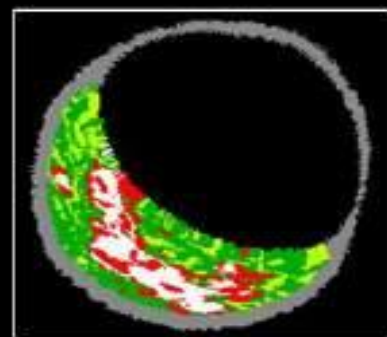
Inactive and  
non-inflamed  
plaque



**vs.**



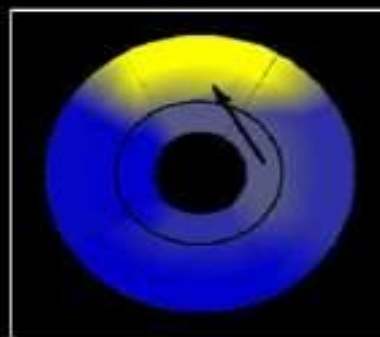
**Morphology**



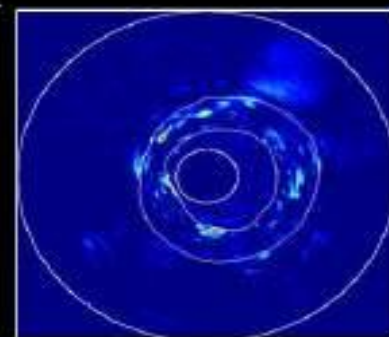
Virtual histology



OCT

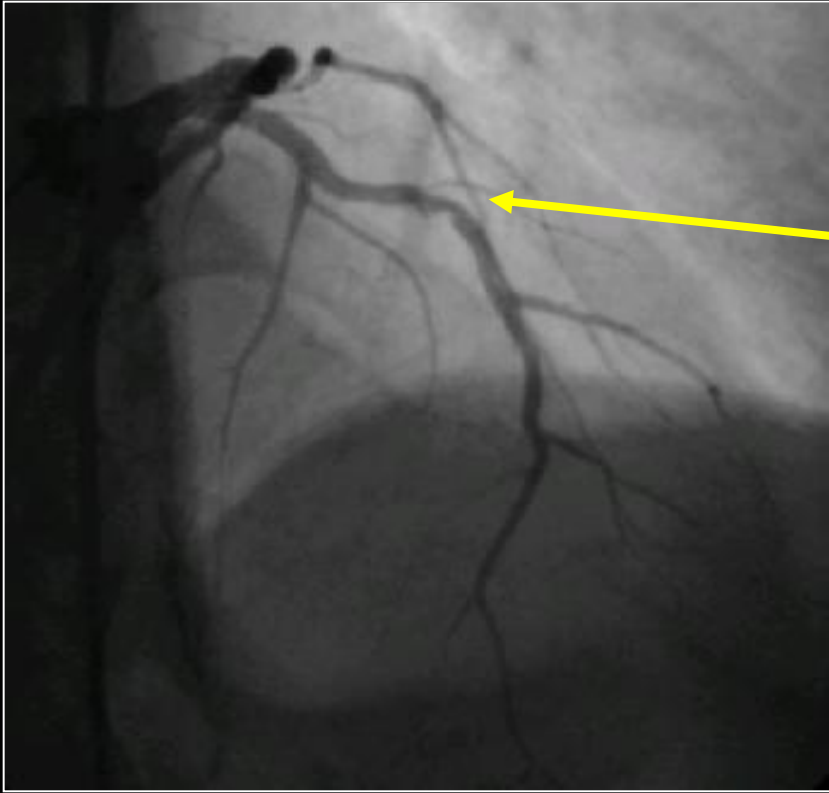


MRI

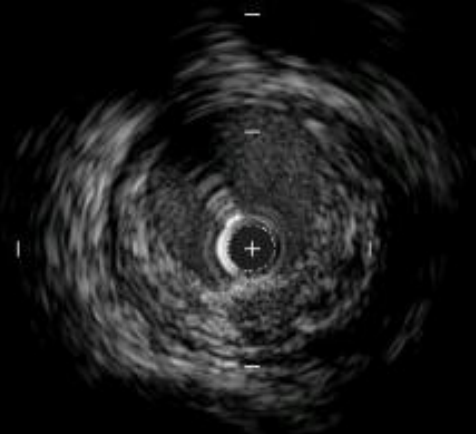


VW Imaging

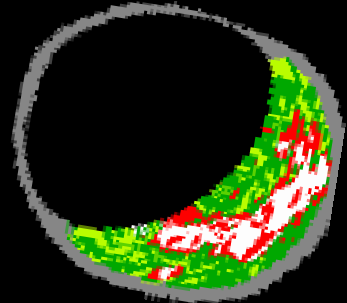




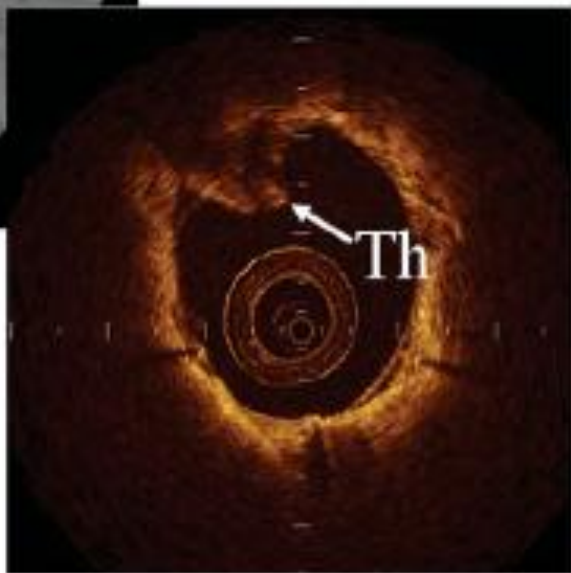
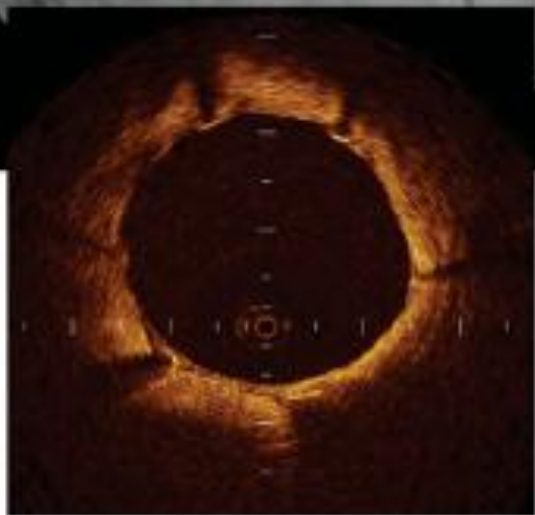
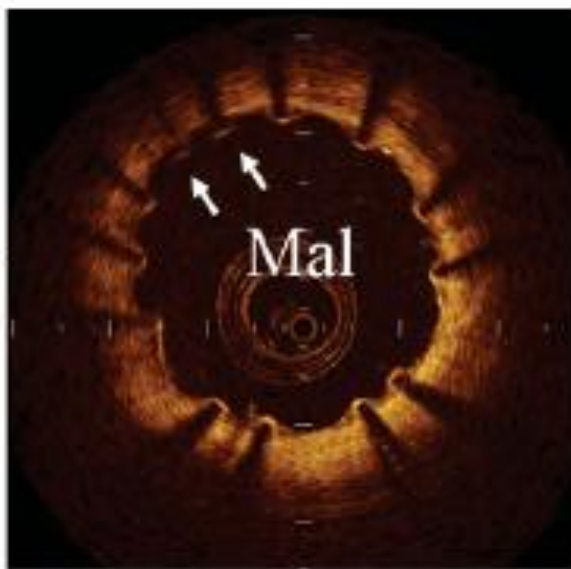
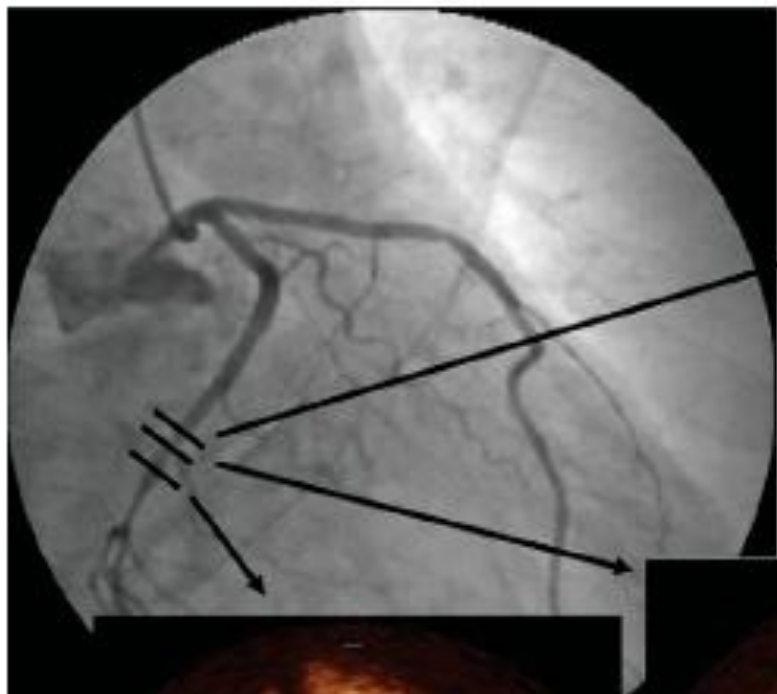
**Lesion site**



**IVUS**

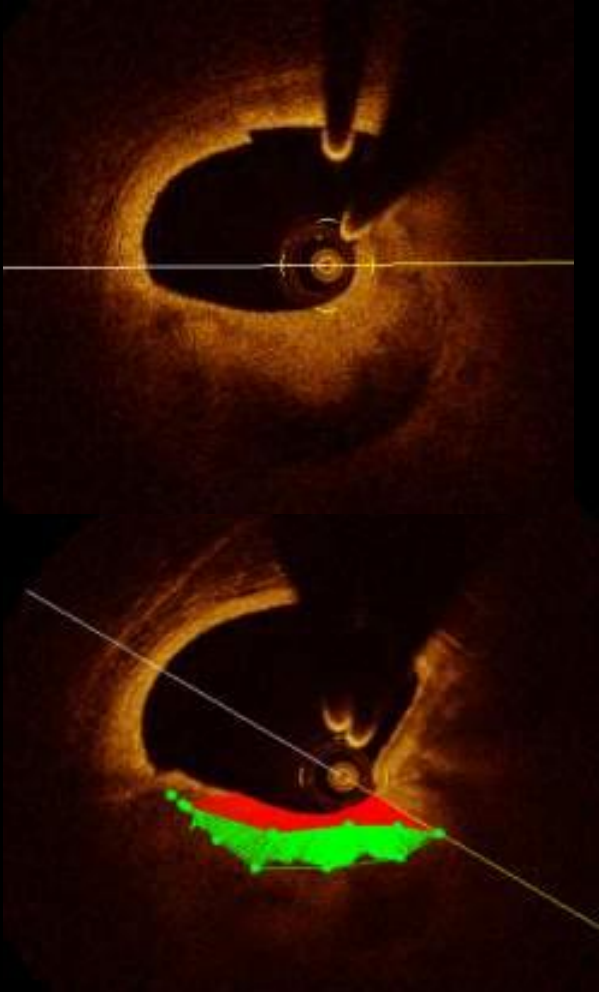


**VH**



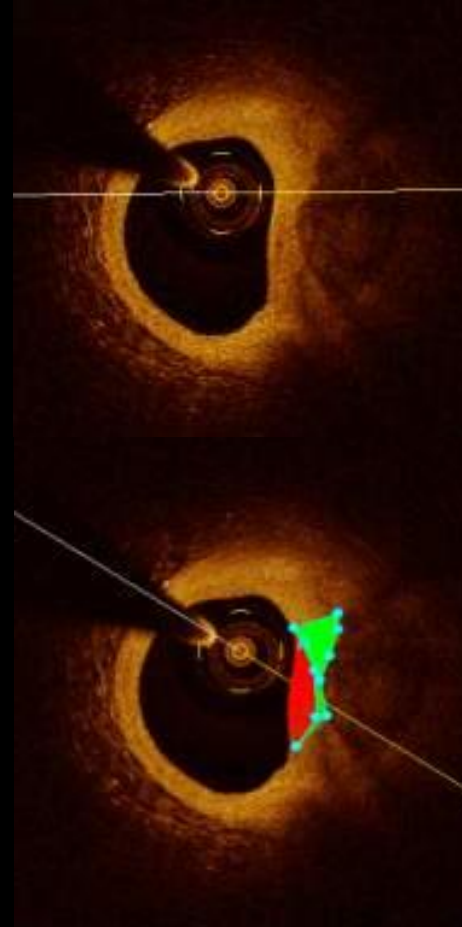
## Vulnerable Plaque

Large plaque  
Superficial LP



## Stable Plaque

Small plaque  
Calcium



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## Fractional Flow Reserve versus Angiography for Guiding Percutaneous Coronary Intervention

Pim A.L. Tonino, M.D., Bernard De Bruyne, M.D., Ph.D., Nico H.J. Pijls, M.D., Ph.D.,  
Uwe Siebert, M.D., M.P.H., Sc.D., Fumiaki Ikeno, M.D., Marcel van 't Veer, M.Sc., Volker Klauss, M.D., Ph.D.,  
Ganesh Manoharan, M.D., Thomas Engström, M.D., Ph.D., Keith G. Oldroyd, M.D., Peter N. Ver Lee, M.D.,  
Philip A. MacCarthy, M.D., Ph.D., and William F. Fearon, M.D., for the FAME Study Investigators\*

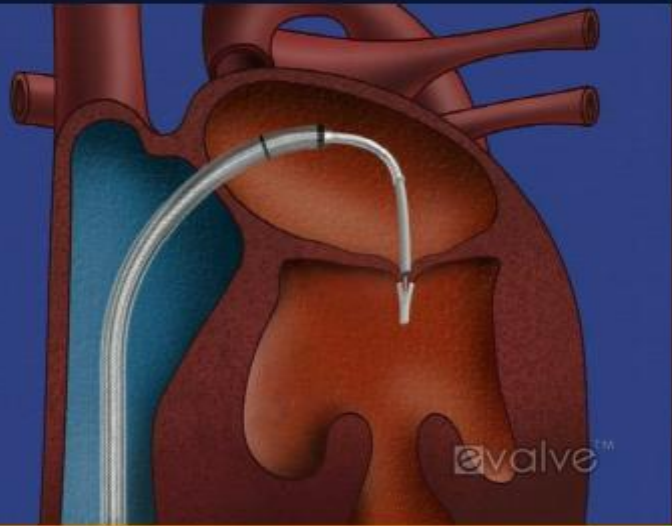


## **TRE BUONI MOTIVI PER AVERE L'EMODINAMICA NELLA PIASTRA OPERATORIA**

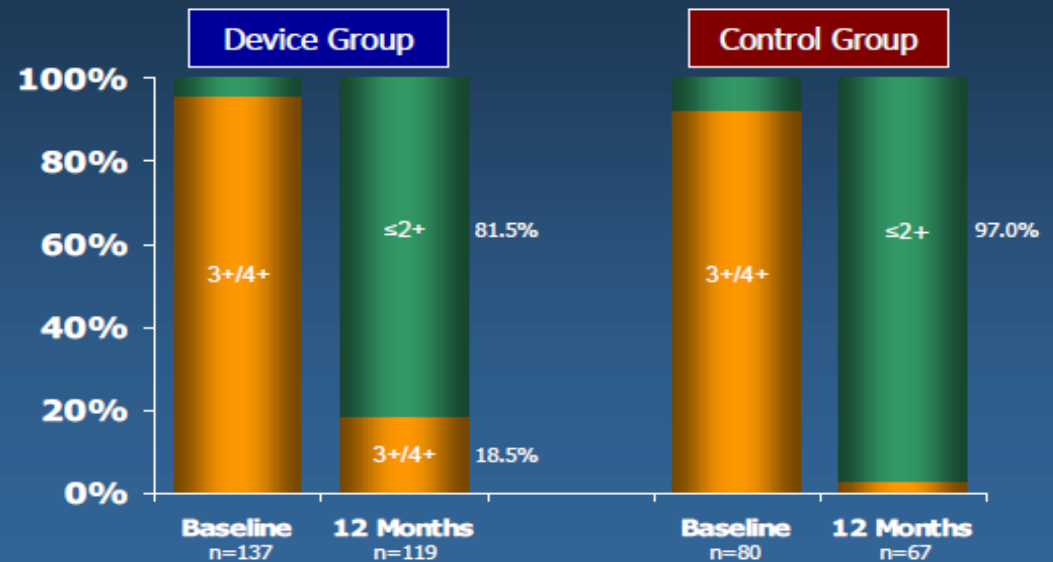
### **3. TRATTAMENTO PERCUTANEO DELLE VALVULOPATIE E DELLE ALTRE CARDIOPATIE STRUTTURALI**

# TRATTAMENTO PERCUTANEO DELL'INSUFFICIENZA MITRALICA

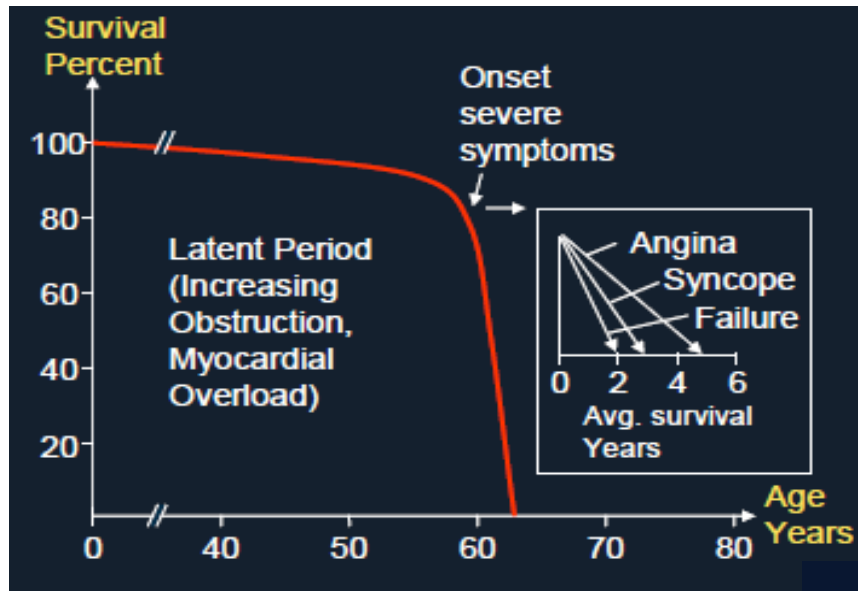
## Edge to Edge (Evalue)



## EVEREST II RCT: MR Reduction Per Protocol Cohort

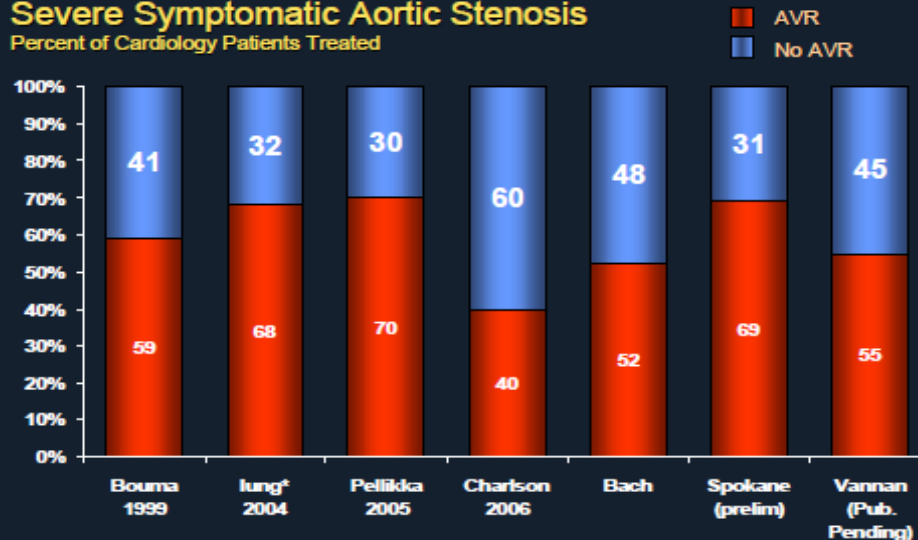


# SOSTITUZIONE VALVOLARE AORTICA PERCUTANEA



**At Least 30% of Patients with Severe Symptomatic AS are “Untreated”!**

**Severe Symptomatic Aortic Stenosis**  
Percent of Cardiology Patients Treated



Under-treatment especially prevalent among patients managed by Primary Care physicians



## Current Generation Devices



**Edwards Lifesciences**

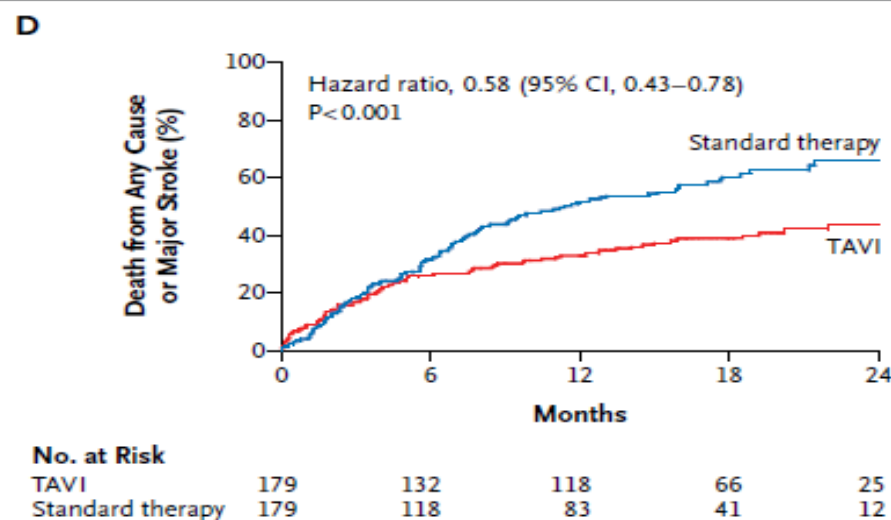
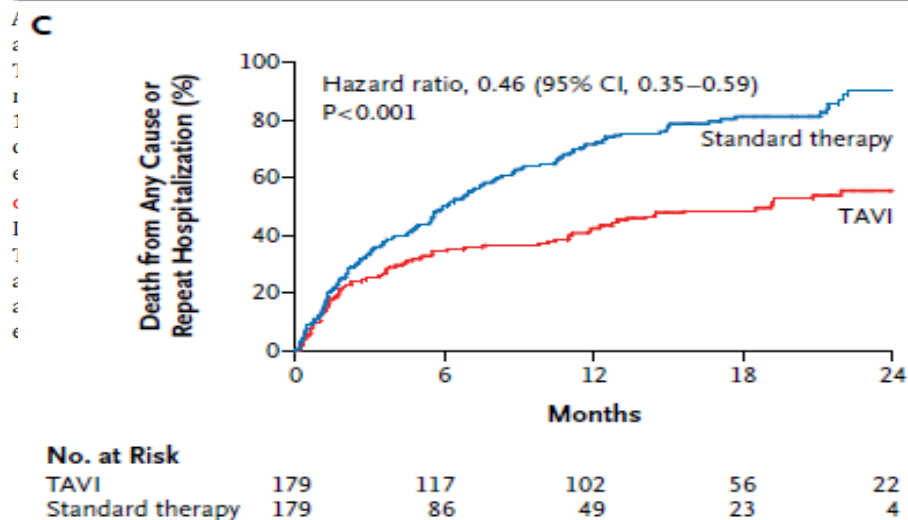
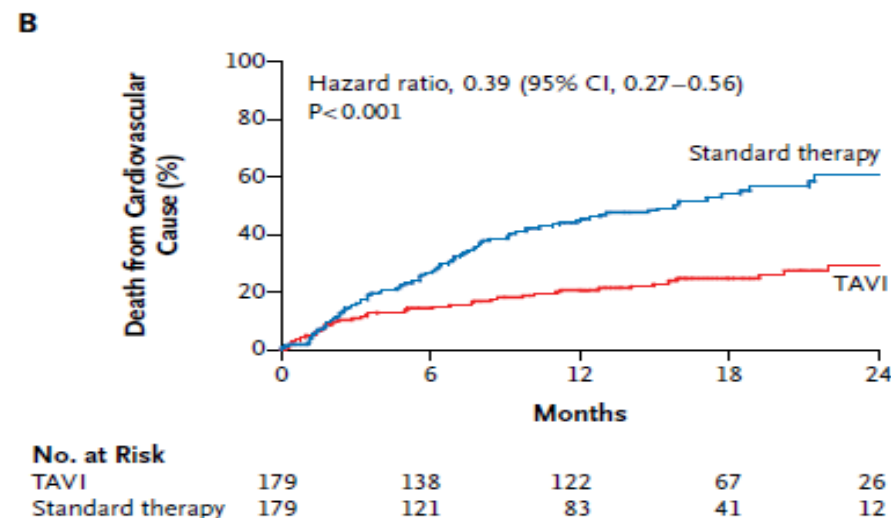
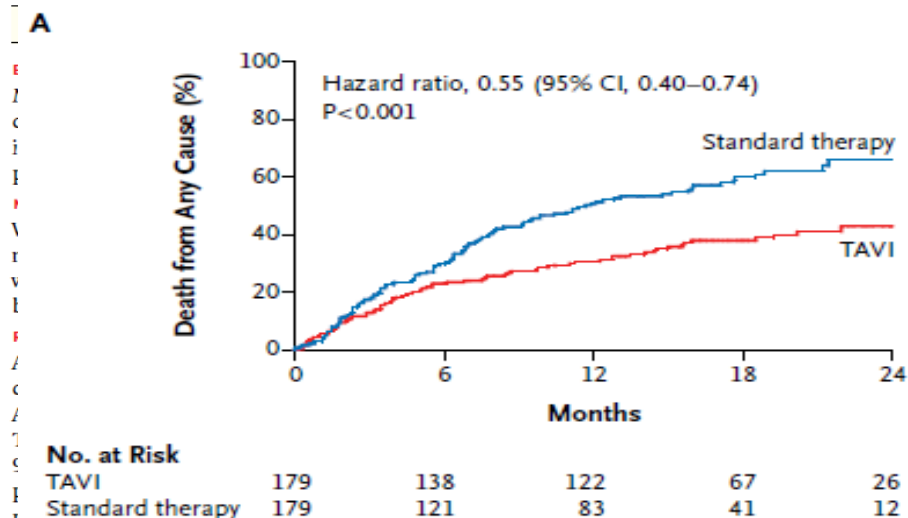


**Medtronic CoreValve**



# Transcatheter Aortic-Valve Implantation for Aortic Stenosis in Patients Who Cannot Undergo Surgery

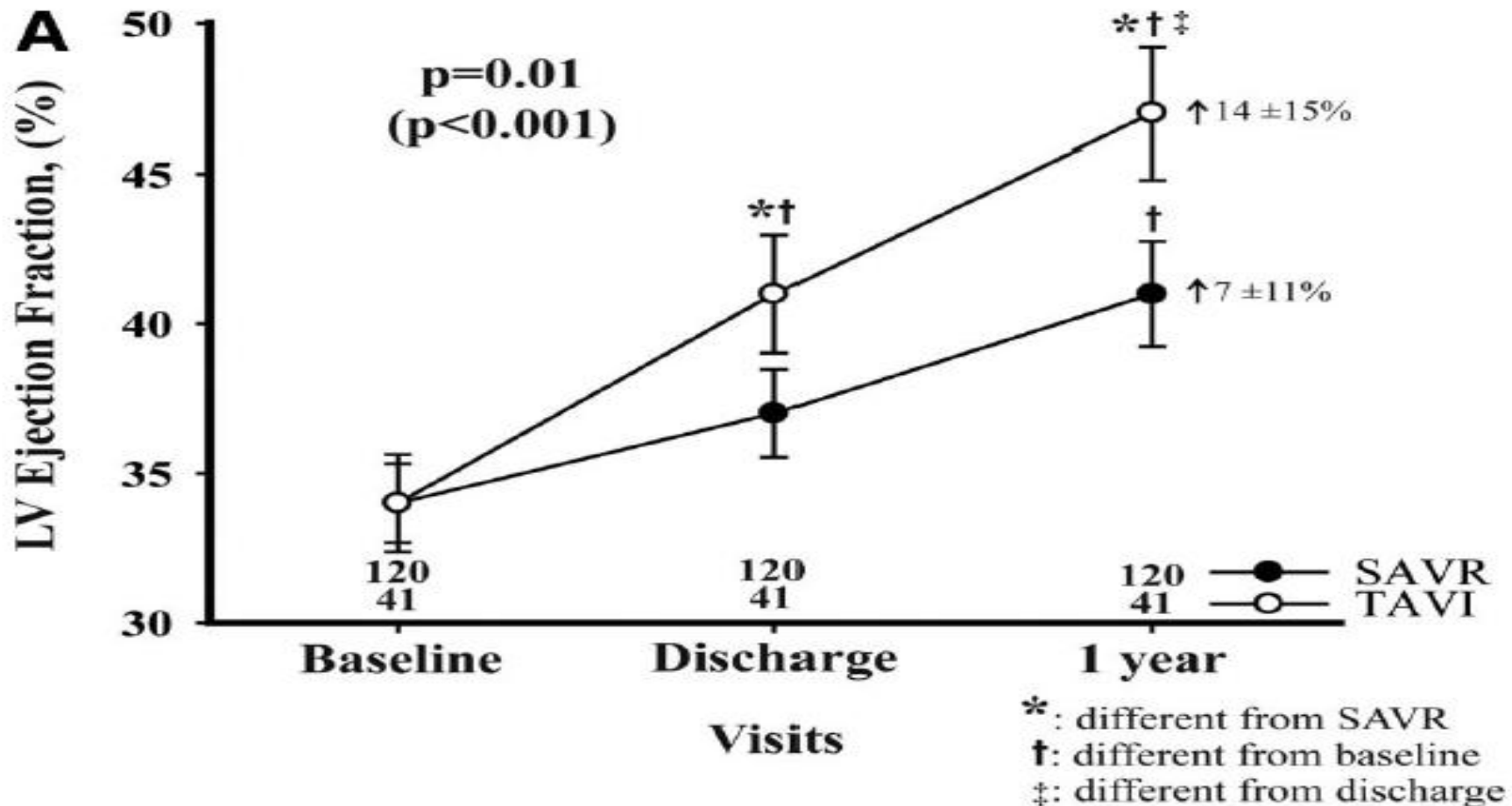
Martin B. Leon, M.D., Craig R. Smith, M.D., Michael Mack, M.D., D. Craig Miller, M.D., Jeffrey W. Moses, M.D., Lars G. Svensson, M.D., Ph.D., E. Murat Tuzcu, M.D., John G. Webb, M.D., Gregory P. Fontana, M.D., Raj R. Makkar, M.D., David L. Brown, M.D., Peter C. Block, M.D., Robert A. Guyton, M.D., Augusto D. Pichard, M.D., Joseph E. Bavaria, M.D., Howard C. Herrmann, M.D., Pamela S. Douglas, M.D., John L. Petersen, M.D., Jodi J. Akin, M.S., William N. Anderson, Ph.D., Duolao Wang, Ph.D., and Stuart Pocock, Ph.D., for the PARTNER Trial Investigators\*



## Valvular Heart Disease

### Comparison Between Transcatheter and Surgical Prosthetic Valve Implantation in Patients With Severe Aortic Stenosis and Reduced Left Ventricular Ejection Fraction

M.A. Clavel, DVM, MS; J.G. Webb, MD; J. Rodés-Cabau, MD; J.B. Masson, MD; E. Dumont, MD; R. De Larochelière, MD; D. Doyle, MD; S. Bergeron, MD; H. Baumgartner, MD; I.G. Burwash, MD; J.G. Dumesnil, MD; G. Mundigler, MD; R. Moss, MD; A. Kempny, MD; R. Bagur, MD; J. Bergler-Klein, MD; R. Gurvitch, MD; P. Mathieu, MD; P. Pibarot, DVM, PhD



# SOSTITUZIONE VALVOLARE AORTICA PERCUTANEA



## CoreValve 2005

- 24 F 1st Gen CoreValve
- Surgical access and closure
- Cardiopulmonary bypass
- General anesthesia



## CoreValve 2010

- 18 F 3rd Gen CoreValve
- Percutaneous access and closure
- No hemodynamic support
- Conscious sedation

**PCI – like Procedure!**

## **IN CONCLUSIONE:**

**LE RECENTI INNOVAZIONI TECNOLOGICHE HANNO RESO LA SALA DI EMODINAMICA NON PIU' LA SEDE DOVE SI EFFETTUANO LE CORONAROGRAFIE MA UNA VERA E PROPRIA SALA OPERATORIA DOVE SI TRATTANO PAZIENTI CLINICAMENTE COMPLESSI CON CORONAROPATIE ACUTE E PAZIENTI CON CARDIOPATIE STRUTTURALI CHE RICHIEDONO UN APPROCCIO MULTIDISCIPLINARE MEDICO E CHIRURGICO**