



SAN GIUSEPPE MOSCATI - AVELLINO  
AZIENDA OSPEDALIERA DI RILIEVO NAZIONALE E DI ALTA SPECIALITÀ

# L'INNOVAZIONE al servizio della **SALUTE**

Sabato 4 Dicembre 2010 // ore 9.00  
Aula Magna // Cittadella Ospedaliera  
A.O.R.N. San G. Moscati // Avellino



# L'innovazione in Cardiologia

*G. Stanco*





## Partire dalle richieste dei cittadini

- facilità di accesso
- equità nell'accesso
- sicurezza nelle cure
- umanità nelle cure
- qualità nelle cure
- "prendersi cura"
- attività di promozione di stili di vita
- economicità delle cure

# L'innovazione in Cardiologia



A.O.R.N. S.G. MOSCATI - AVELLINO

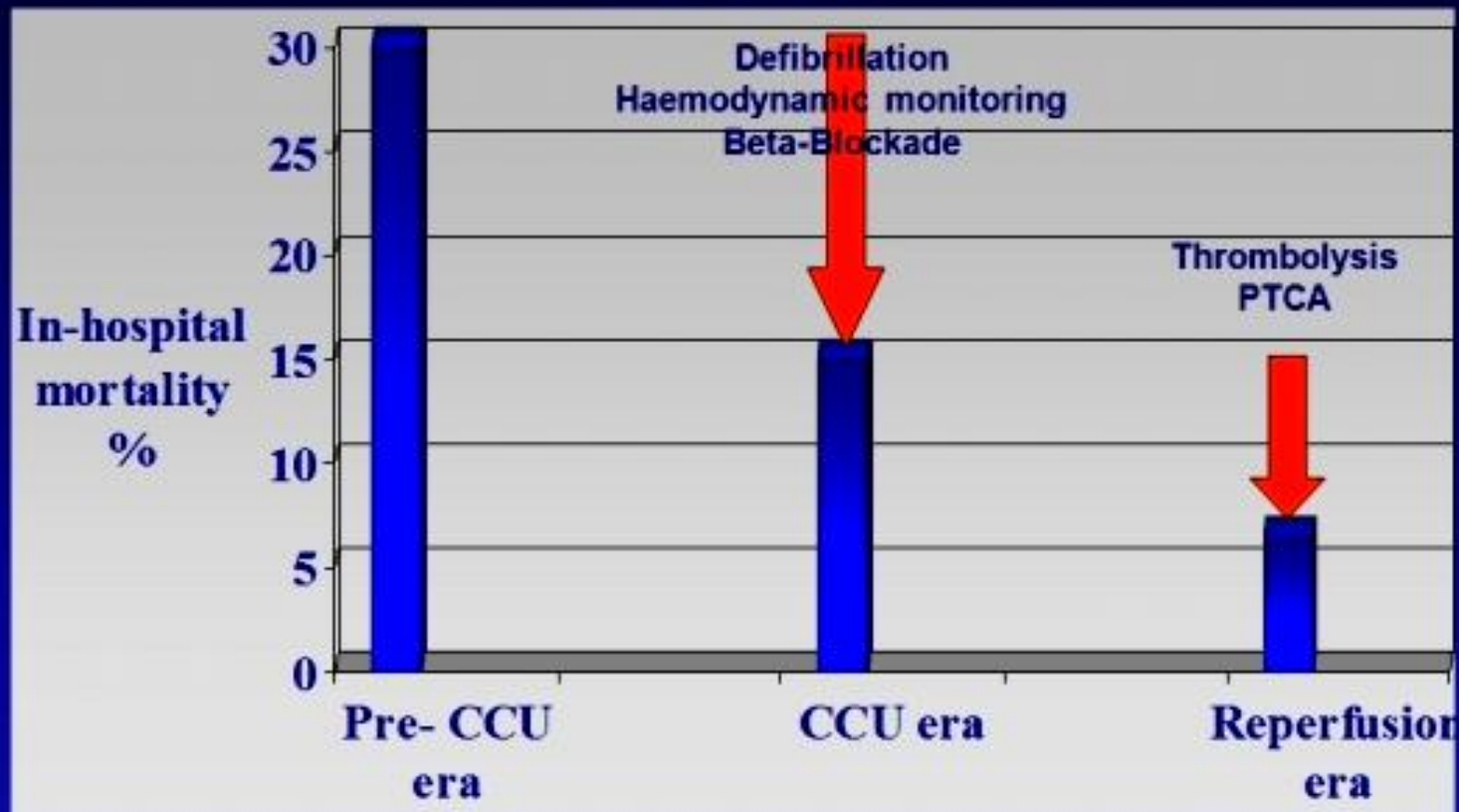
## I buoni risultati delle UTIC

# L'innovazione in Cardiologia



A.O.R.N. S.G. MOSCATI - AVELLINO

## Riduzione della mortalità correlata all'IMA



Modificata da Braunwald: Heart Disease 2005



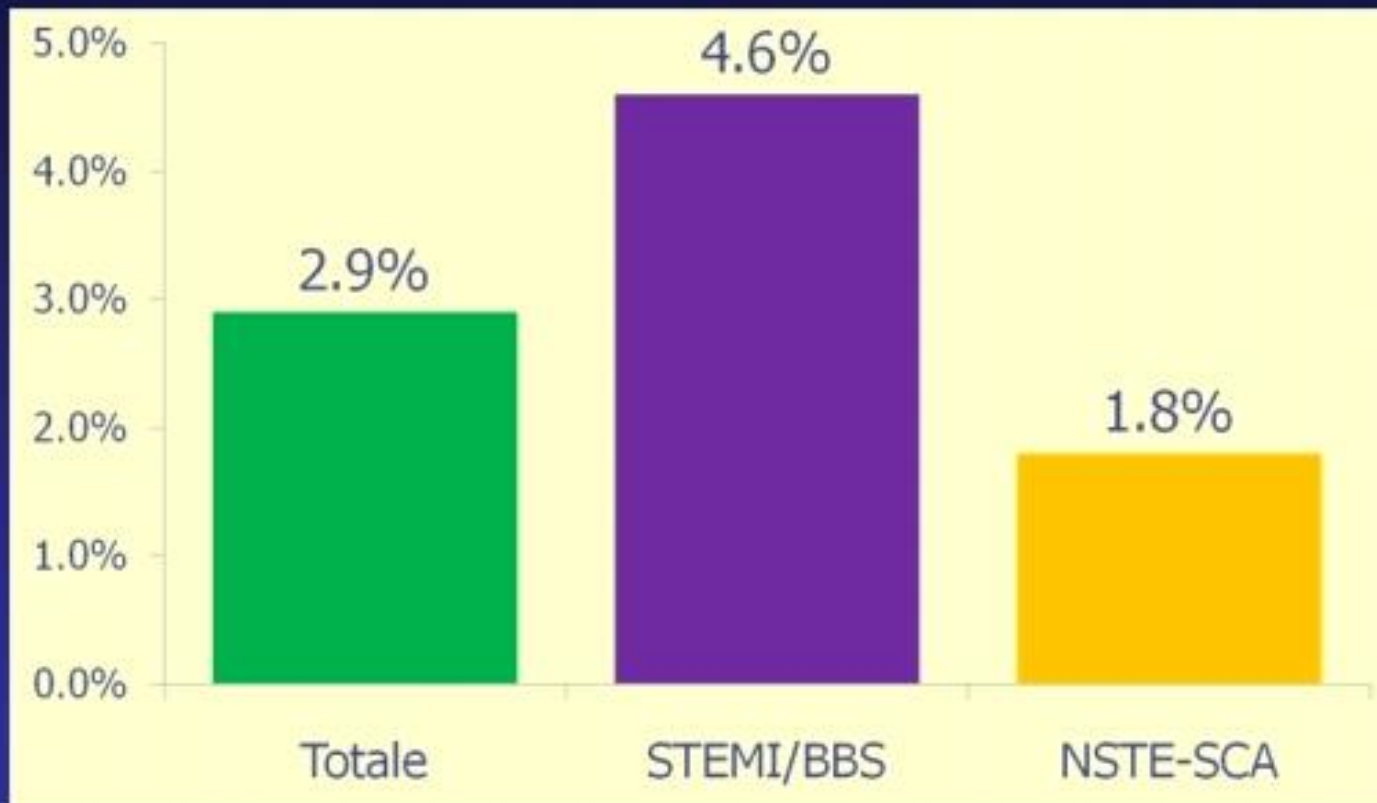
# L'innovazione in Cardiologia



A.O.R.N. S.G. MOSCATI - AVELLINO

## Stato alla dimissione

### Mortalità intra-ospedaliera by diagnosi all'ingresso

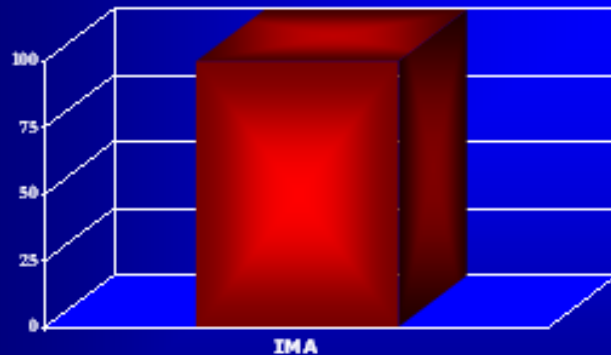


# L'innovazione in Cardiologia

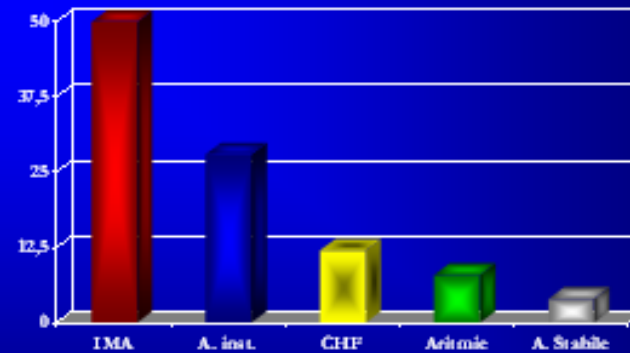


A.O.R.N. S.G. MOSCATI - AVELLINO

Motivo del ricovero in  
UTIC negli anni '60



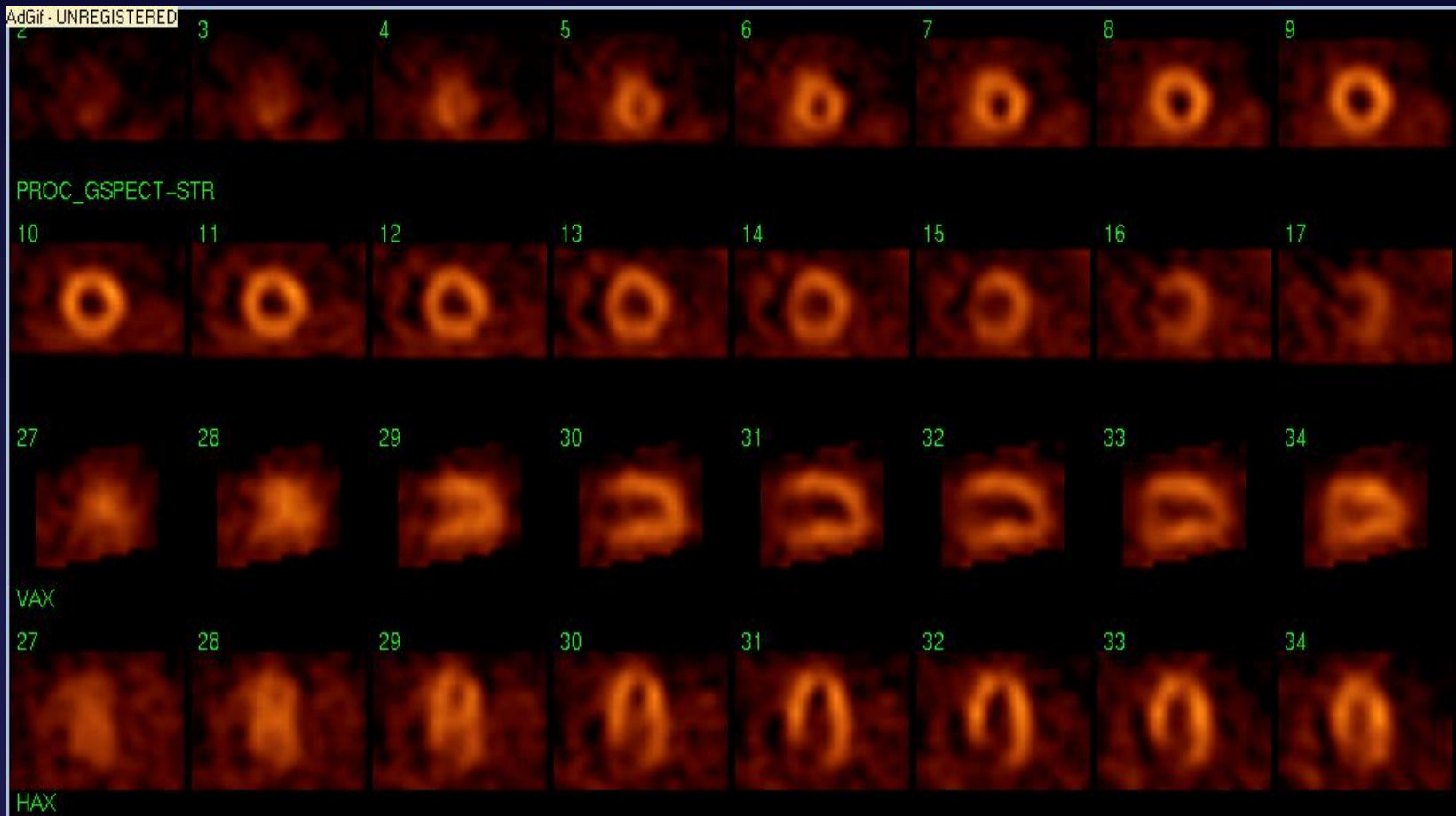
Motivo del ricovero in  
UTIC negli anni '90  
(studio EARISA)







# Valutazione combinata della funzione e perfusione del ventricolo sinistro

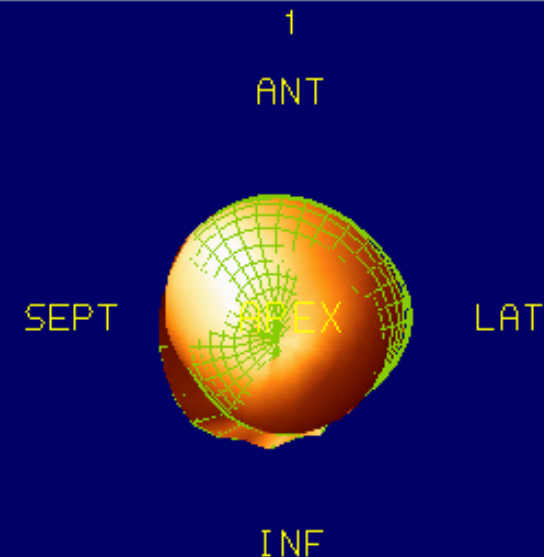
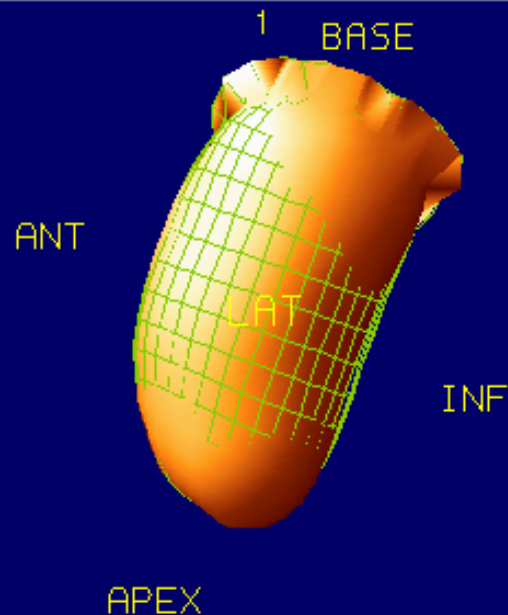
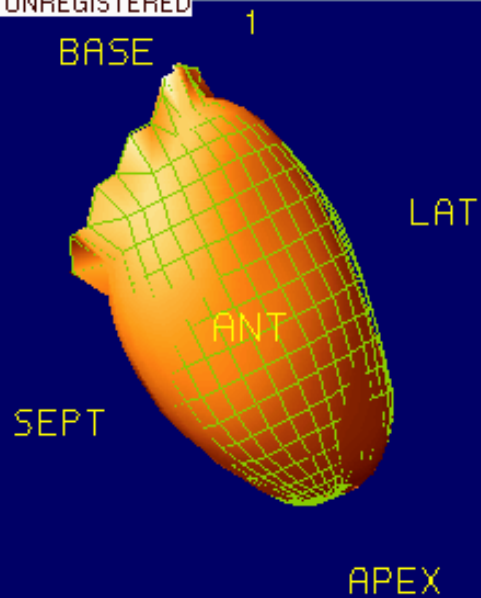




# Valutazione della funzione del ventricolo sinistro: cinesi in 3D

A.O.R.N. S.G. MOSCATI - AVELLINO

AdGif - UNREGISTERED

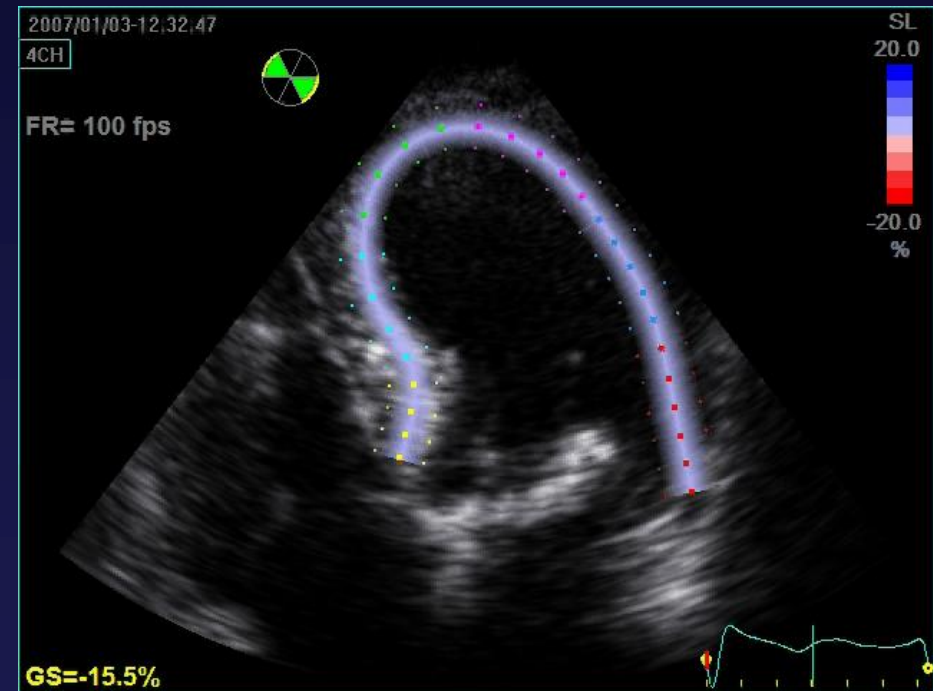
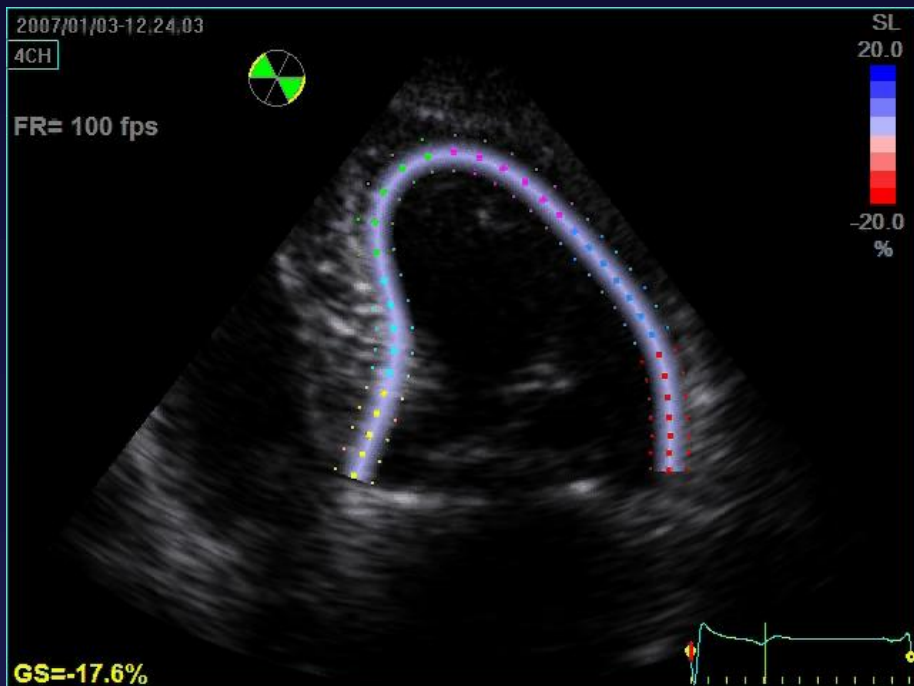


# L'innovazione in Cardiologia



A.O.R.N. S.G. MOSCATI - AVELLINO

## ECO-STRESS

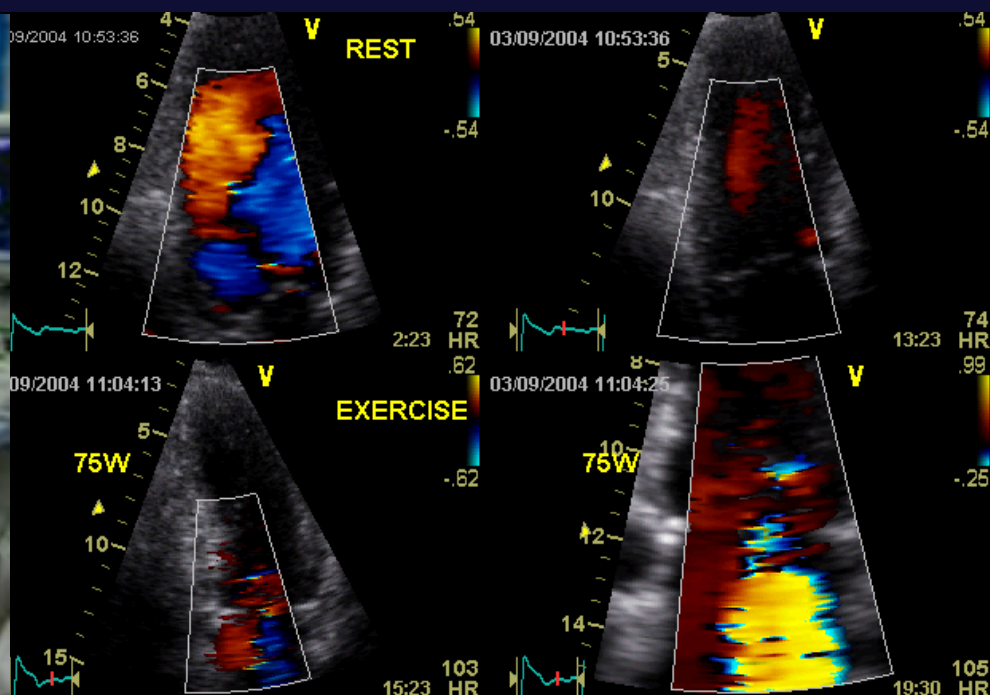


# L'innovazione in Cardiologia



A.O.R.N. S.G. MOSCATI - AVELLINO

## ECO-STRESS



# L'innovazione in Cardiologia



A.O.R.N. S.G. MOSCATI - AVELLINO

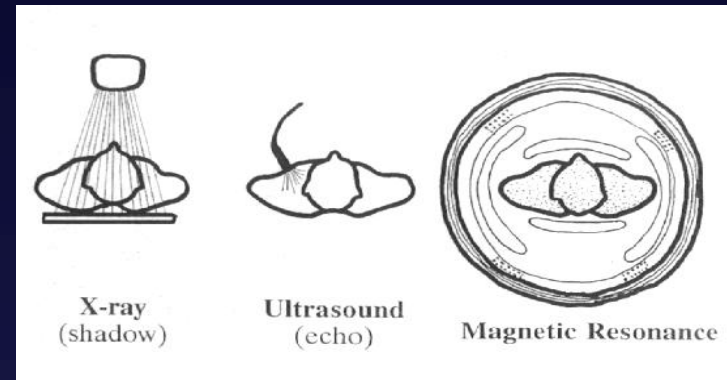
## ECO 3D





## RM

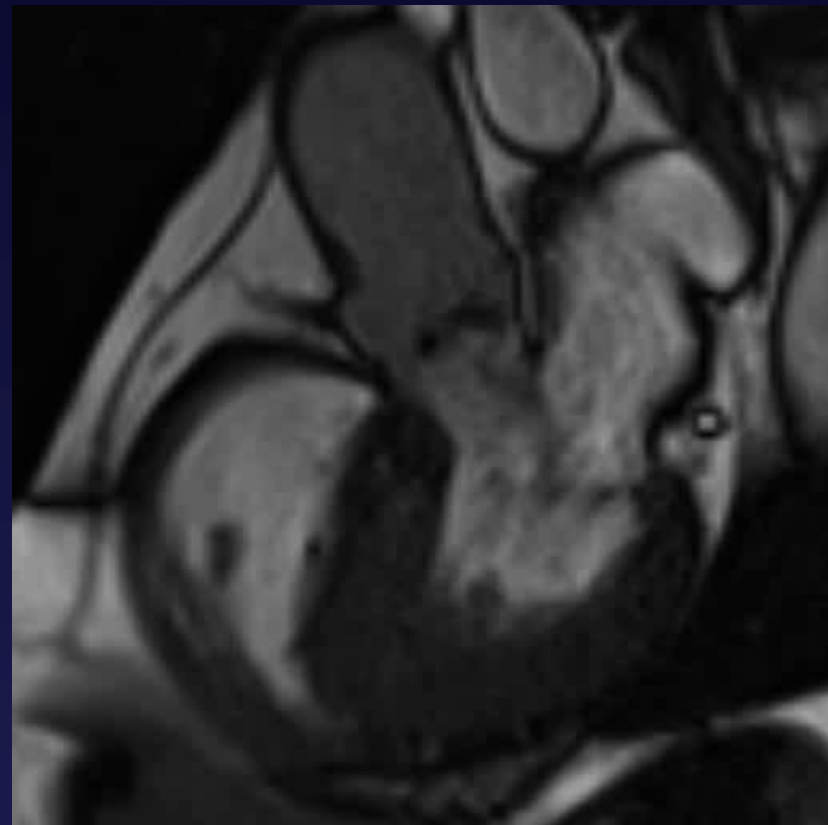
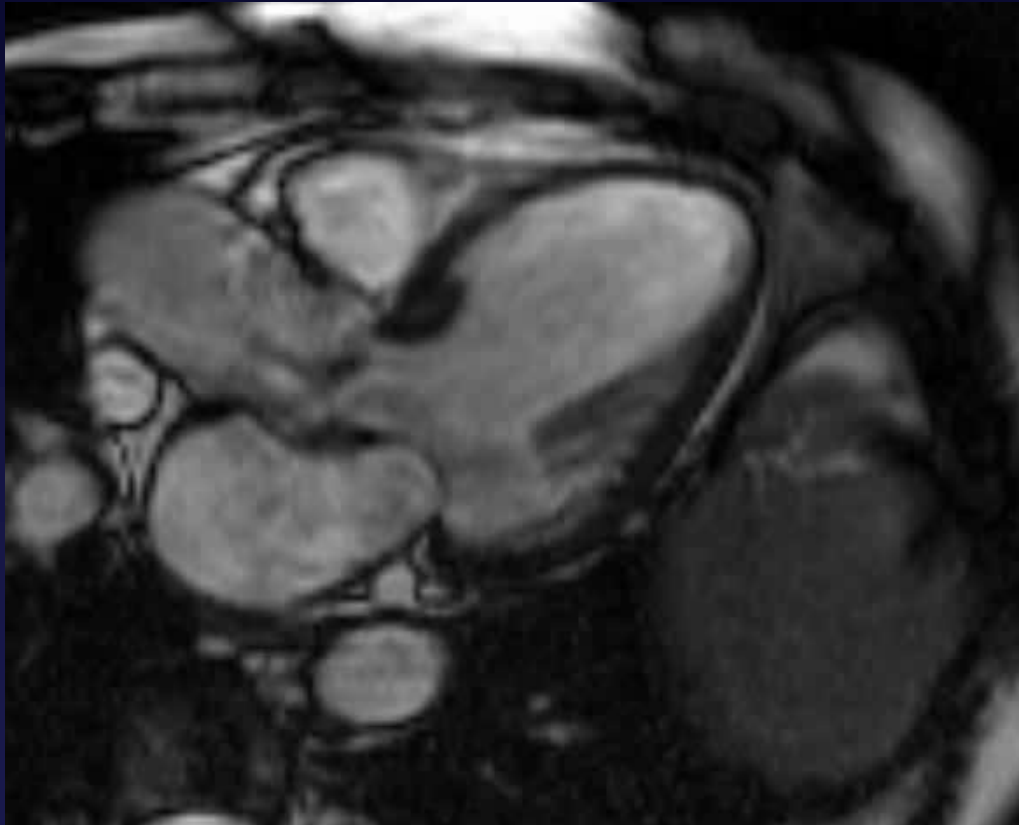
- Non-invasive imaging technique
- High-resolution images in any desired plane
- No radiation
- Combined modalities (morphology, function)
- Accurate diagnosis
- Less observer-dependent



# L'innovazione in Cardiologia

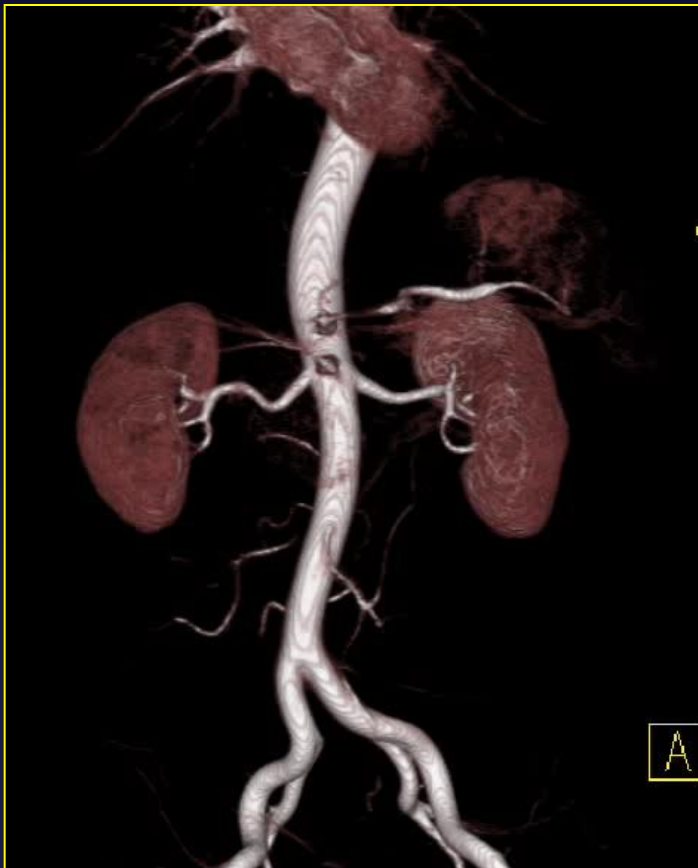


A.O.R.N. S.G. MOSCATI - AVELLINO





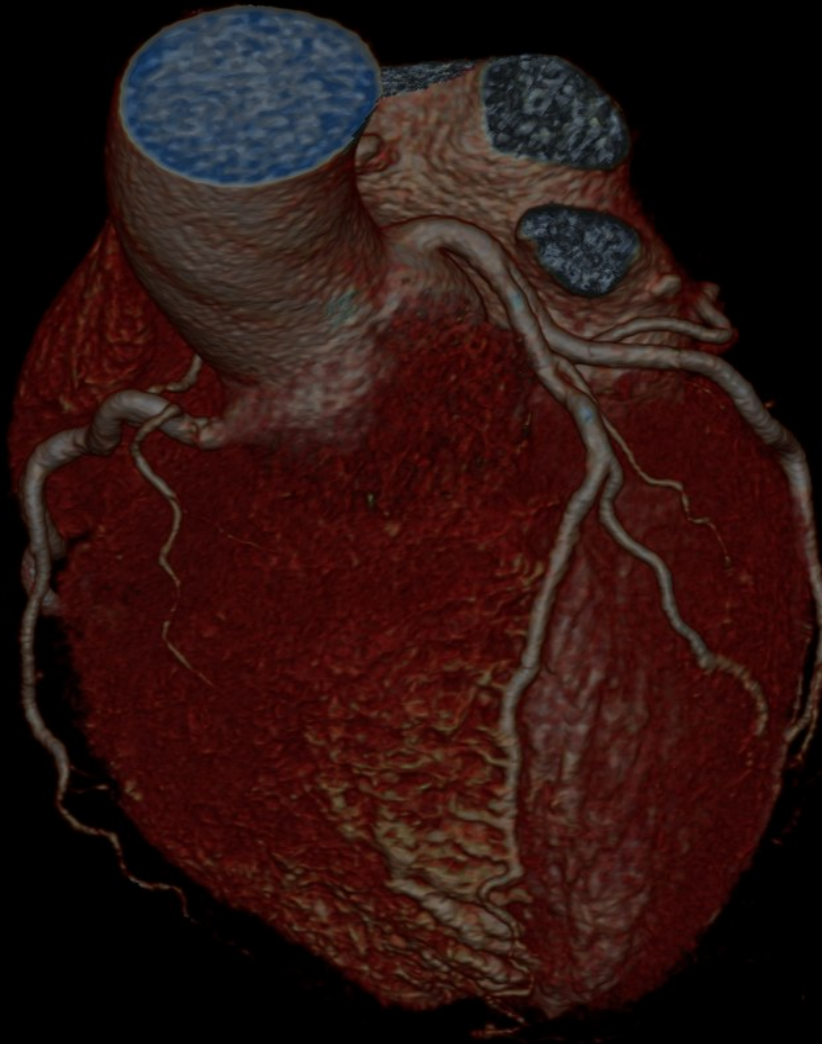
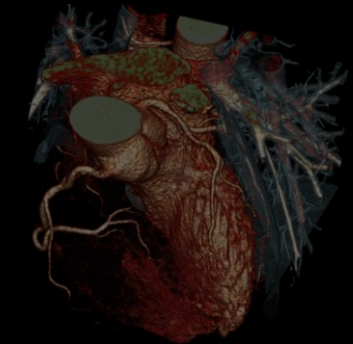
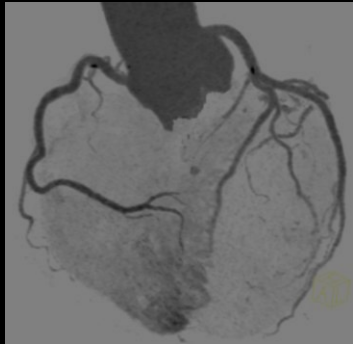
## PERIPHERAL ARTERIES





# SOMATOM Definition Flash

## Sub-mSv heart



## SOMATOM Definition Flash

Flash speed.  
Lowest dose.

0.8 mSv  
250 ms acquisition  
HR independent  
temp Res. 75 ms  
spatial Res. 0.33 mm  
100 kV

## Two X-ray Sources / Detectors

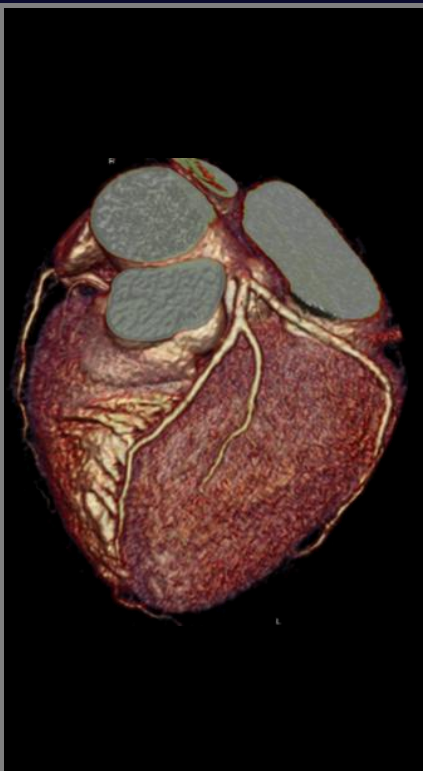


# SOMATOM Definition Flash

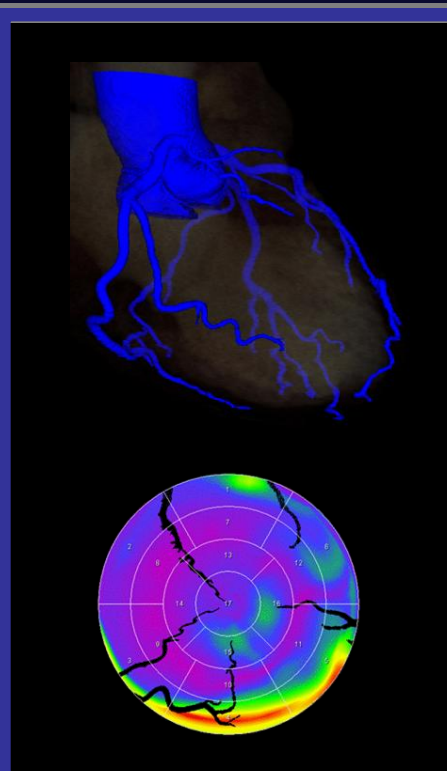
## Sub-mSv heart



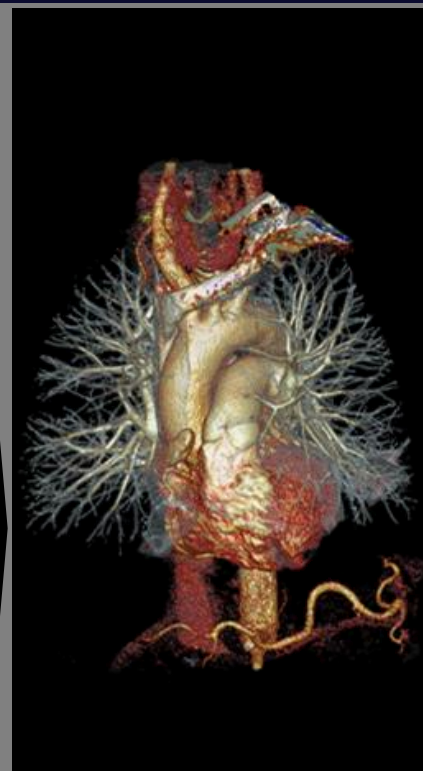
A.O.R.N. S.G. MOSCATI - AVELLINO



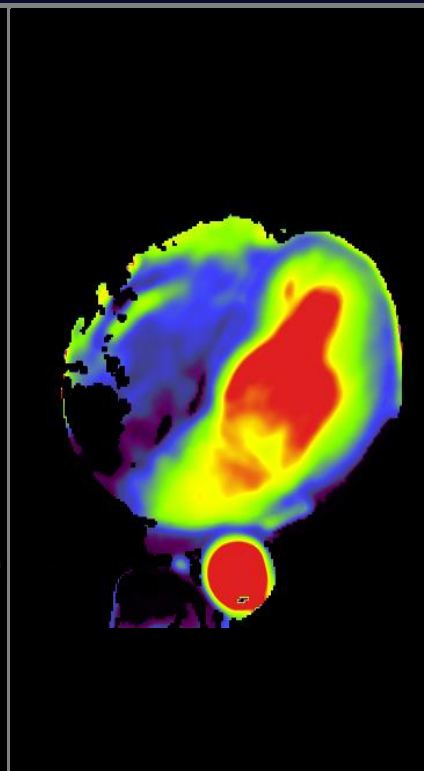
**Early  
detection**



**Coronary  
CTA**



**Triple  
rule-out**



**Stress  
Perfusion**

# L'innovazione in Cardiologia



A.O.R.N. S.G. MOSCATI -AVELLINO

## The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812

OCTOBER 1, 2009

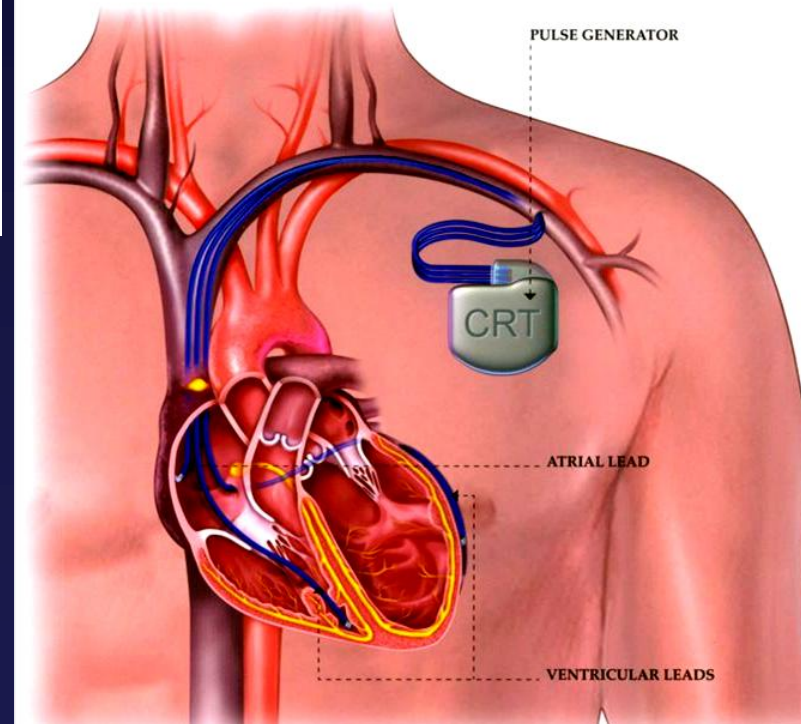
VOL. 361 NO. 14

### Cardiac-Resynchronization Therapy for the Prevention of Heart-Failure Events

Arthur J. Moss, M.D., W. Jackson Hall, Ph.D., David S. Cannom, M.D., Helmut Klein, M.D., Mary W. Brown, M.S., James P. Daubert, M.D., N.A. Mark Estes III, M.D., Elyse Foster, M.D., Henry Greenberg, M.D., Steven L. Higgins, M.D., Marc A. Pfeffer, M.D., Ph.D., Scott D. Solomon, M.D., David Wilber, M.D., and Wojciech Zareba, M.D., Ph.D., for the MADIT-CRT Trial Investigators\*

#### CARDIAC RESYNCHRONIZATION THERAPY DEVICE

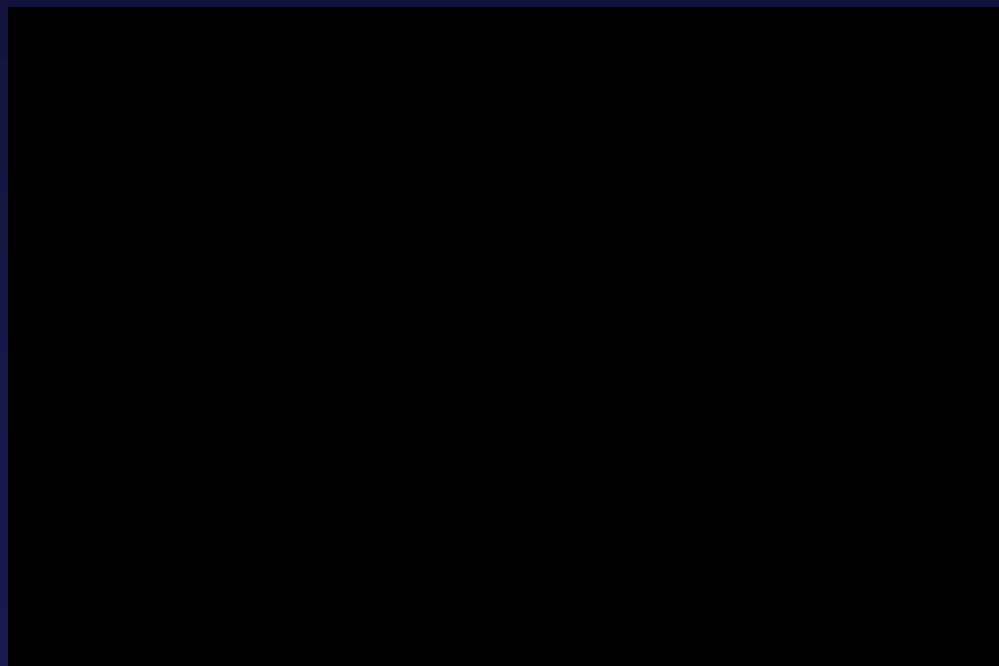
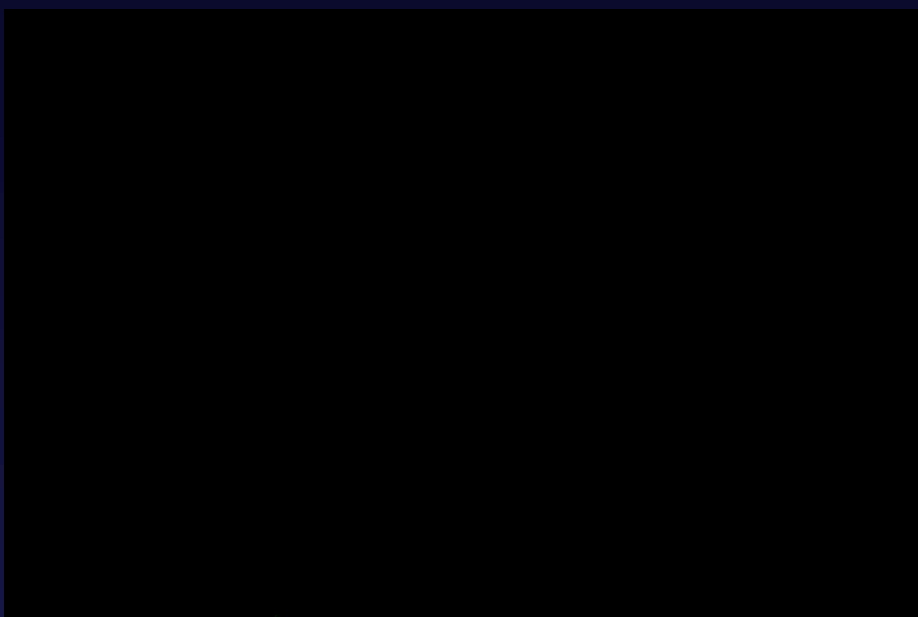
A Cardiac Resynchronization Therapy (CRT) device is a battery-powered device that sends electrical signals to the right and left ventricles to help it beat in a synchronized manner.



# L'innovazione in Cardiologia



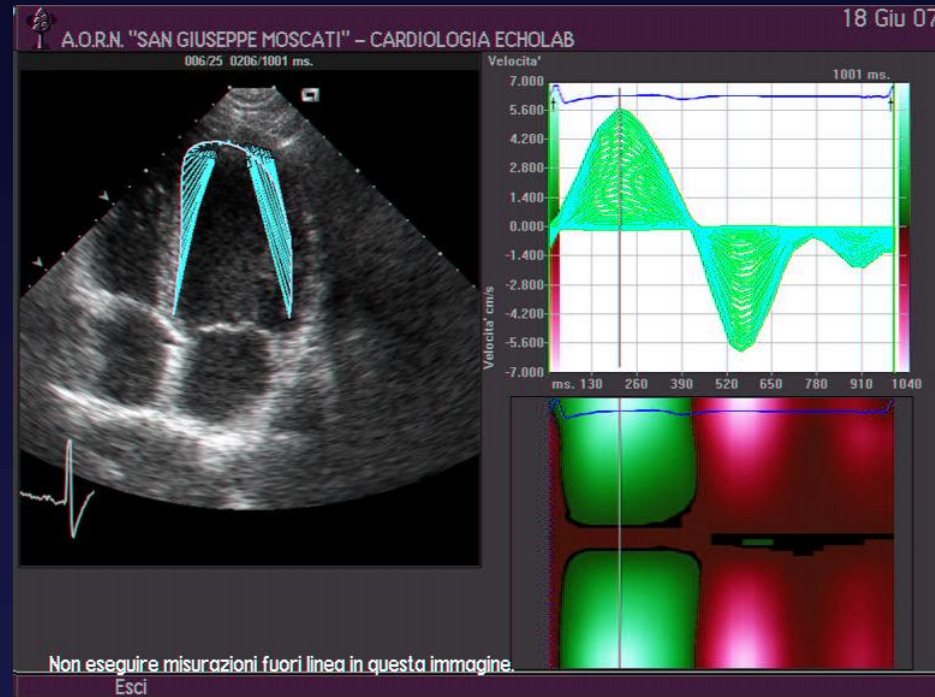
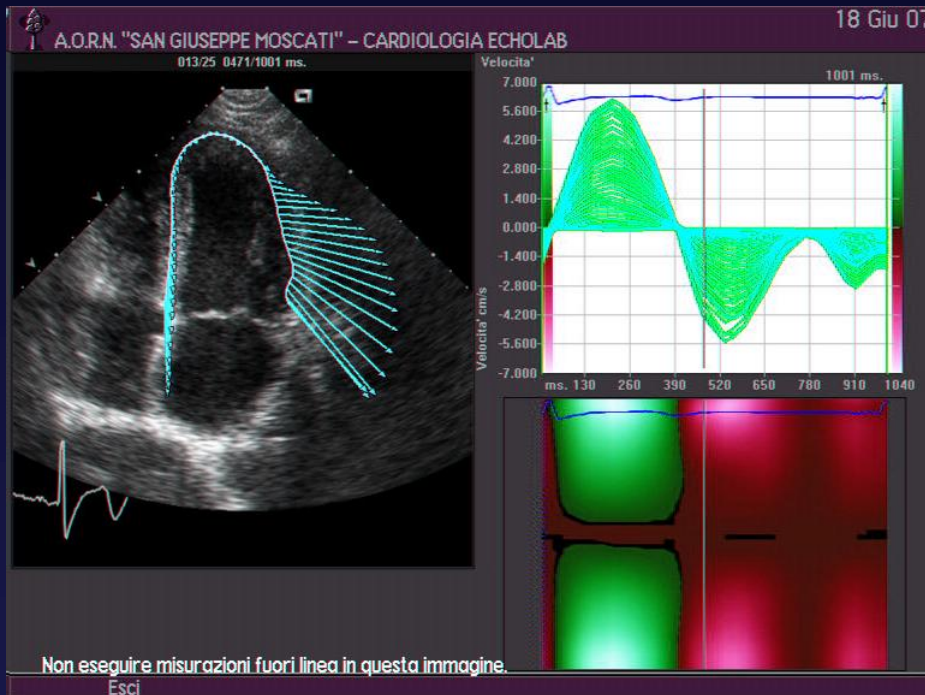
A.O.R.N. S.G. MOSCATI - AVELLINO



# L'innovazione in Cardiologia



A.O.R.N. S.G. MOSCATI -AVELLINO



# **Innovazione in Elettrofisiologia**

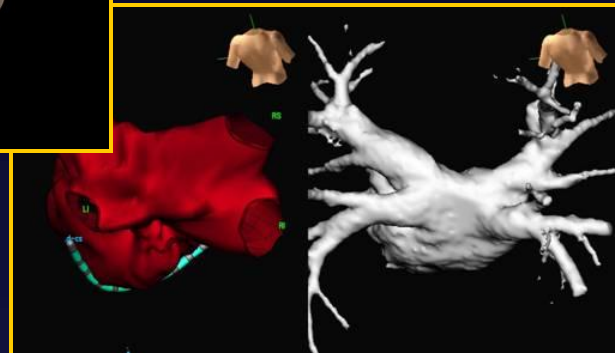
**RICOSTRUZIONE ANATOMICA  
VIRTUALE DELLE CAMERE  
CARDIACHE**



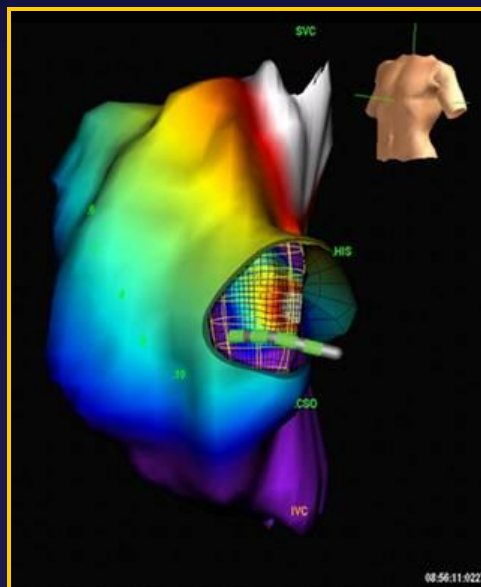
# EnSite™



Basato sull'Anatomia  
**EnSite NavX™**  
Contact



Basato sull'Attivazione  
**EnSite Array™**  
No contact

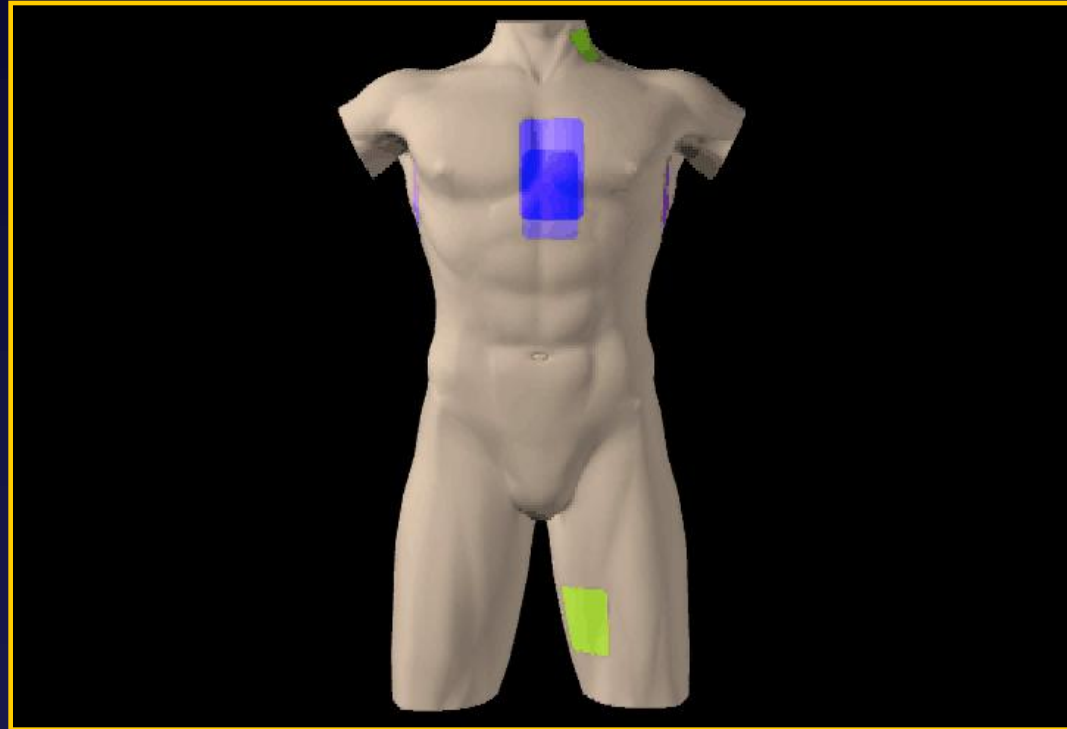




# Ricostruzione anatomica

## Principio di Funzionamento

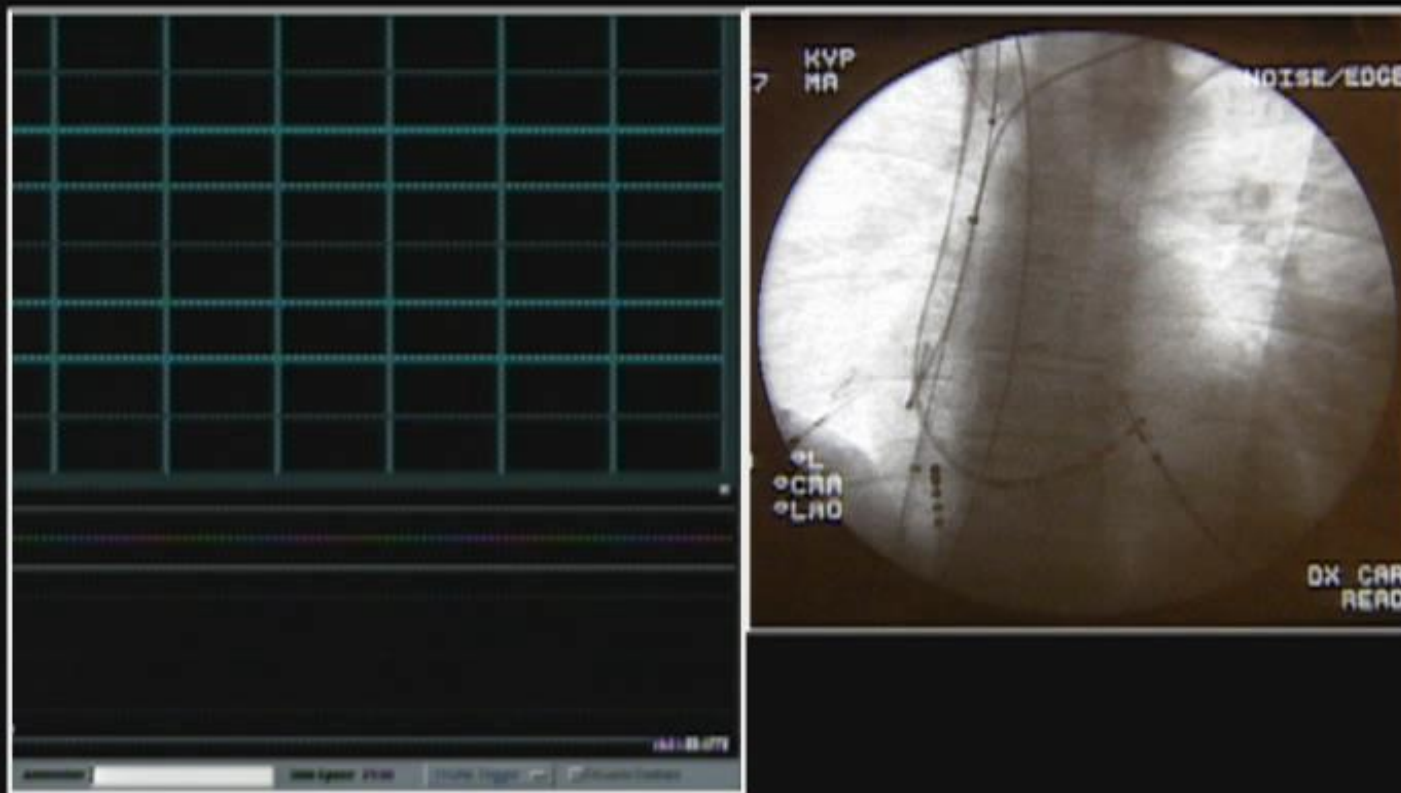
- Un segnale elettrico di 5.6 kHz viene emesso dalle 3 coppie di elettrodi di superficie (Patch)
- Ogni elettrodo del catetere viene localizzato 93 volte al secondo





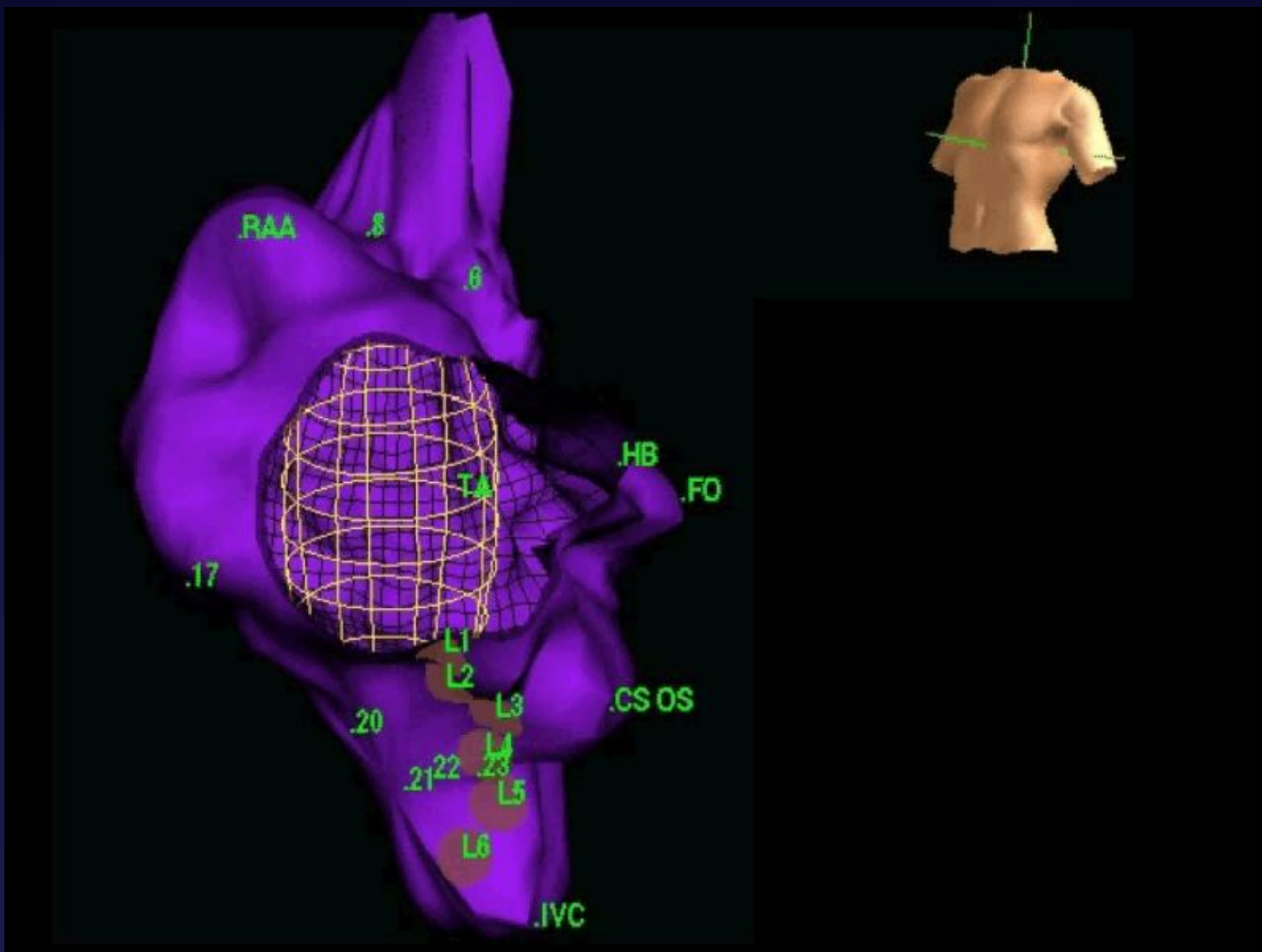


# Ricostruzione anatomica

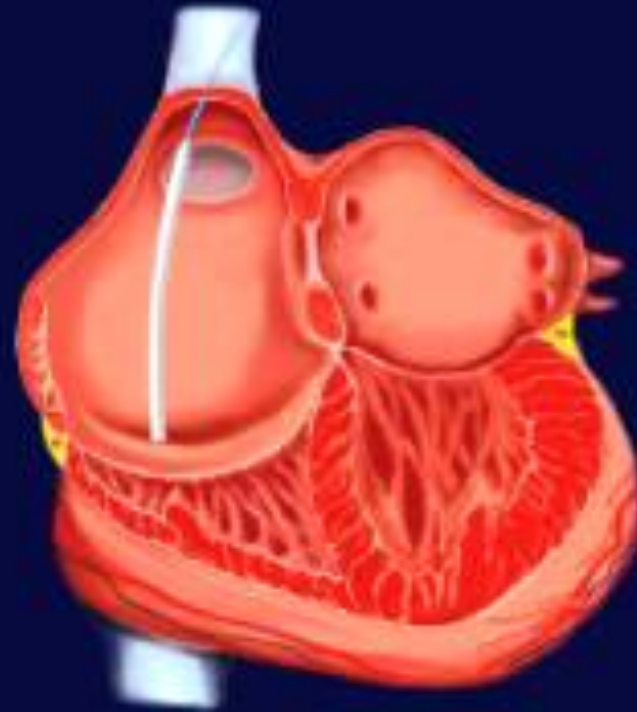




# La navigazione intracardiaca non fluoroscopica

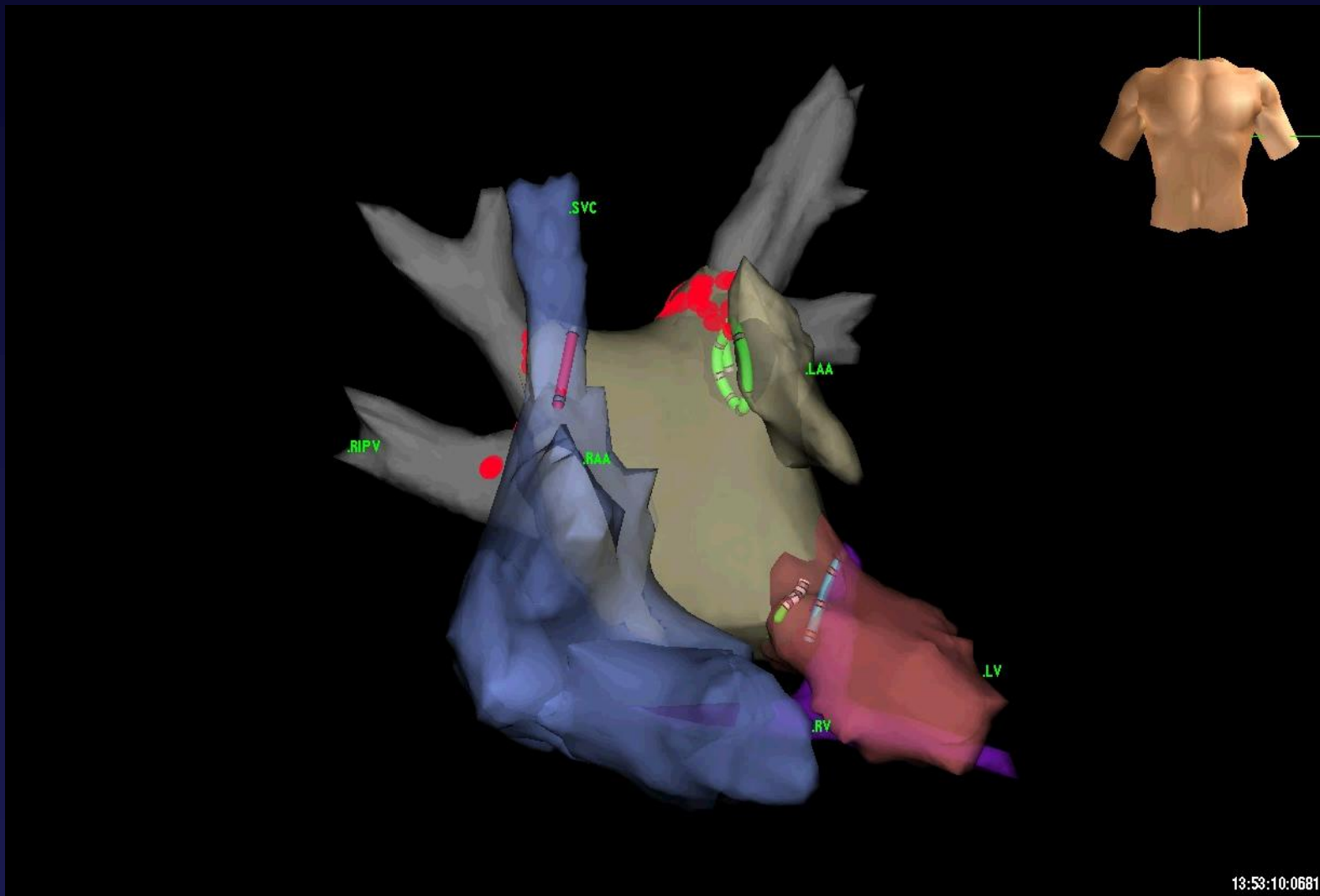


# PUNTURA TRANSETTALE





# La navigazione intracardiaca non fluoroscopica



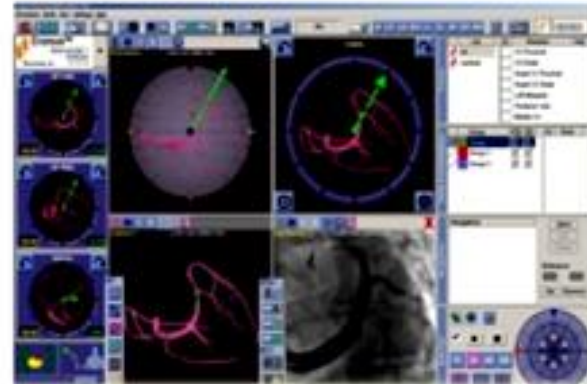
# L'innovazione in Cardiologia



A.O.R.N. S.G. MOSCATI - AVELLINO

## ABLAZIONE RF: APPROCCIO ROBOT-ASSISTITO

### STEREOTAXIS



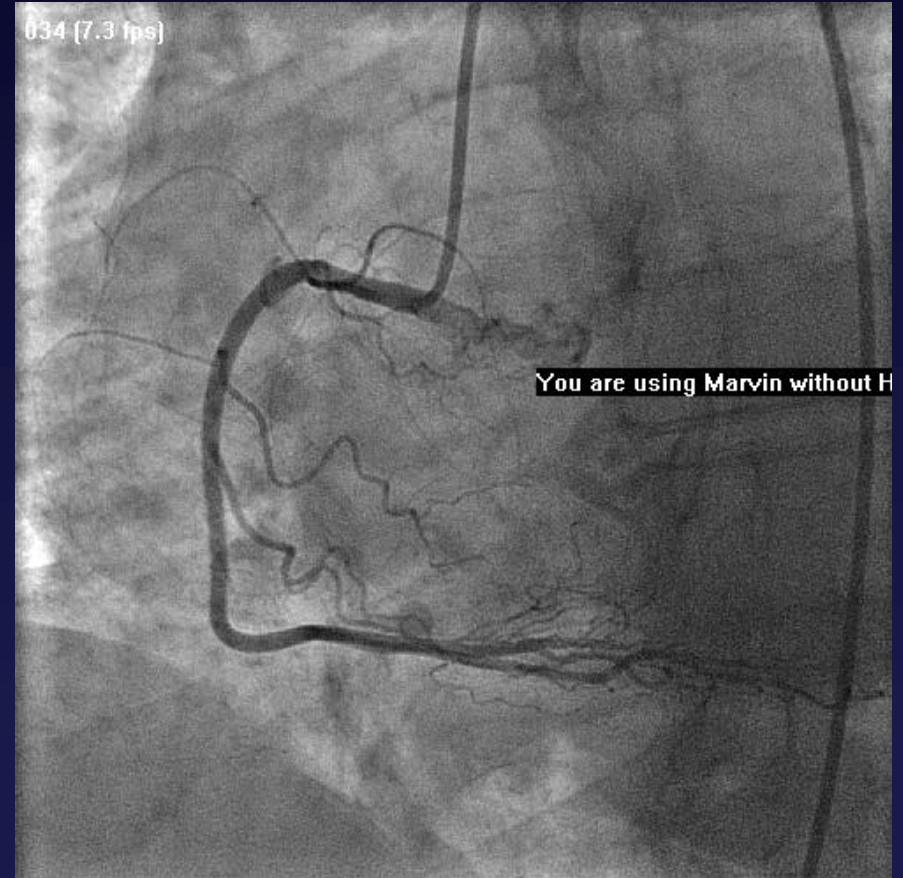
### HANSEN



# PTCA PRIMARIA CORONARIA DESTRA



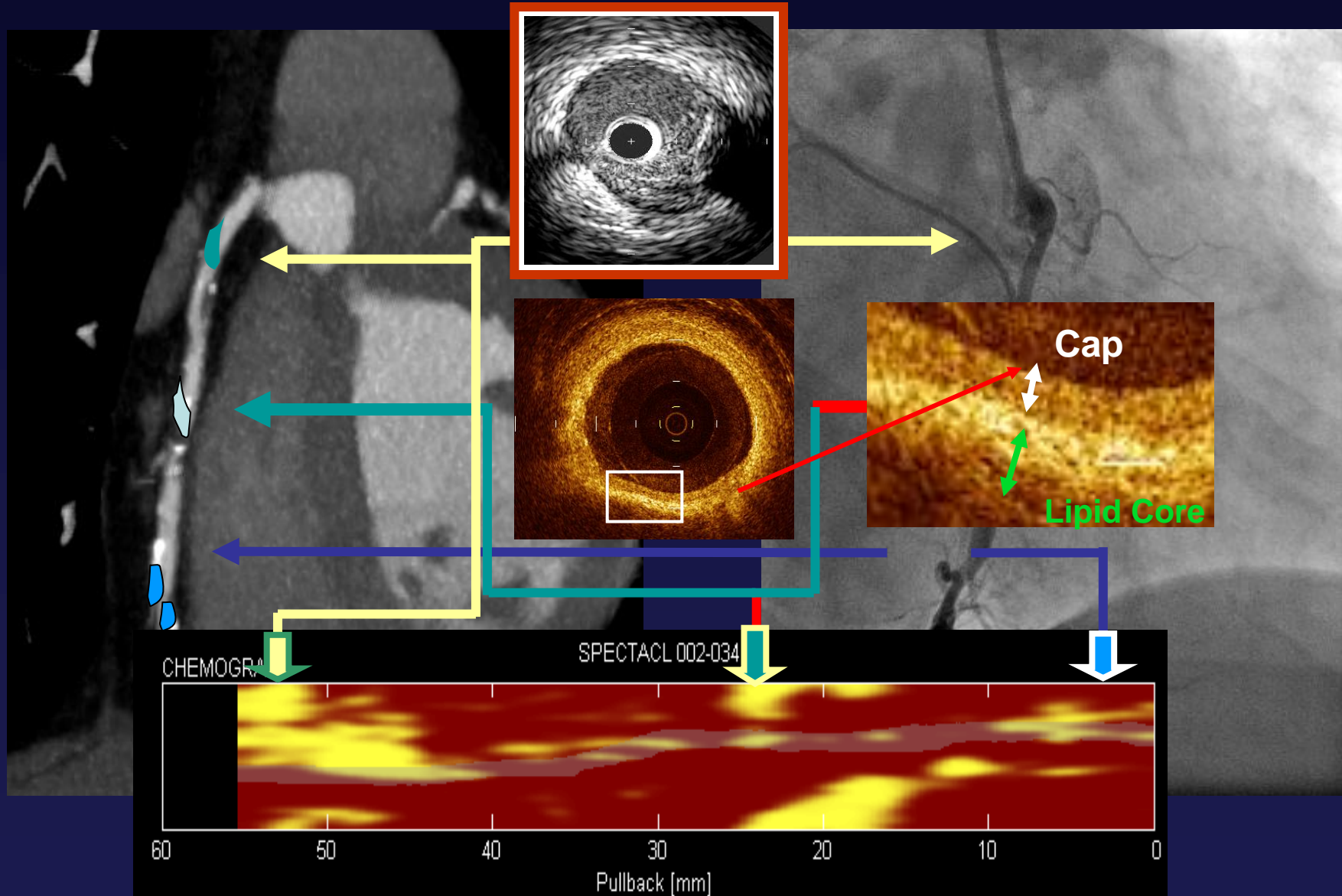
A.O.R.N. S.G. MOSCATI - AVELLINO



# Distinguishing Stable and Unstable Plaque



A.O.R.N. S.G. MOSCATI - AVELLINO

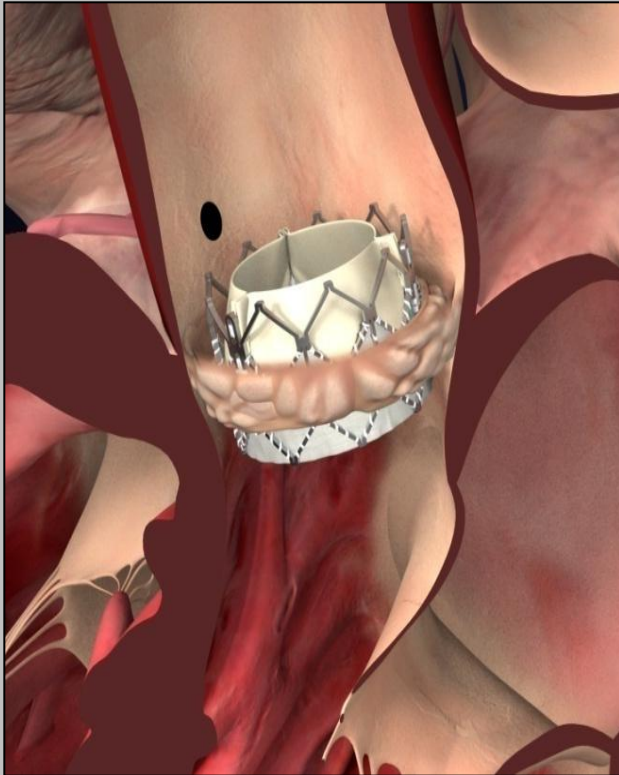


# L'innovazione in Cardiologia



A.O.R.N. S.G. MOSCATI - AVELLINO

## TAVI



Balloon-Expandable Edwards valve  
Bovine pericardium valve  
Stainless steel, (now cobalt chromium) stent



Self expandable CoreValve  
Porcine pericardium valve  
Nitinol stent



# L'innovazione in Cardiologia



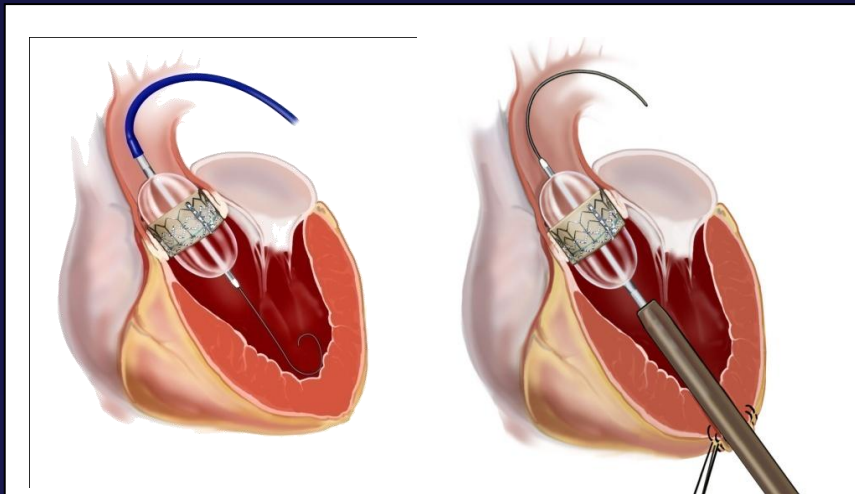
A.O.R.N. S.G. MOSCATI - AVELLINO

## TAVI

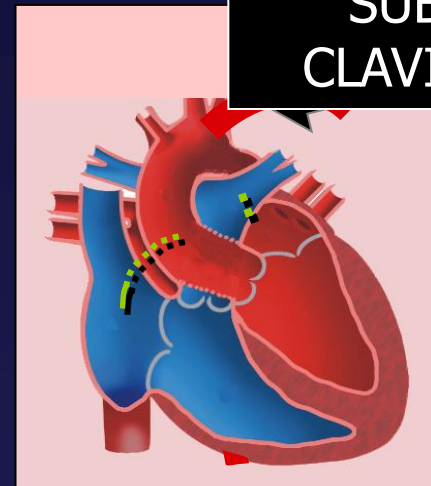


FEMORAL

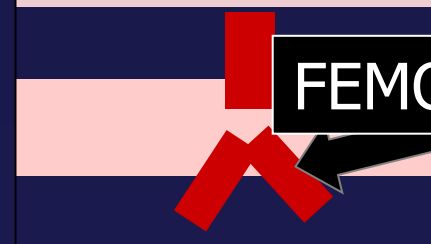
APICAL



SUB-  
CLAVIAN



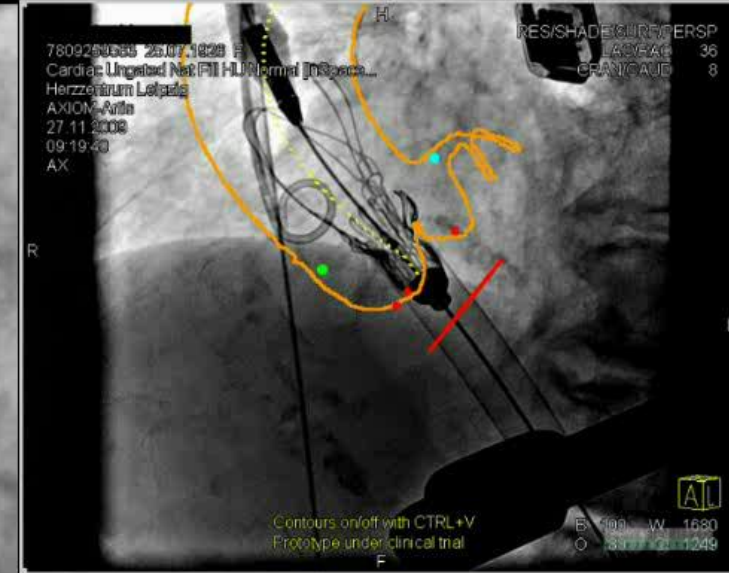
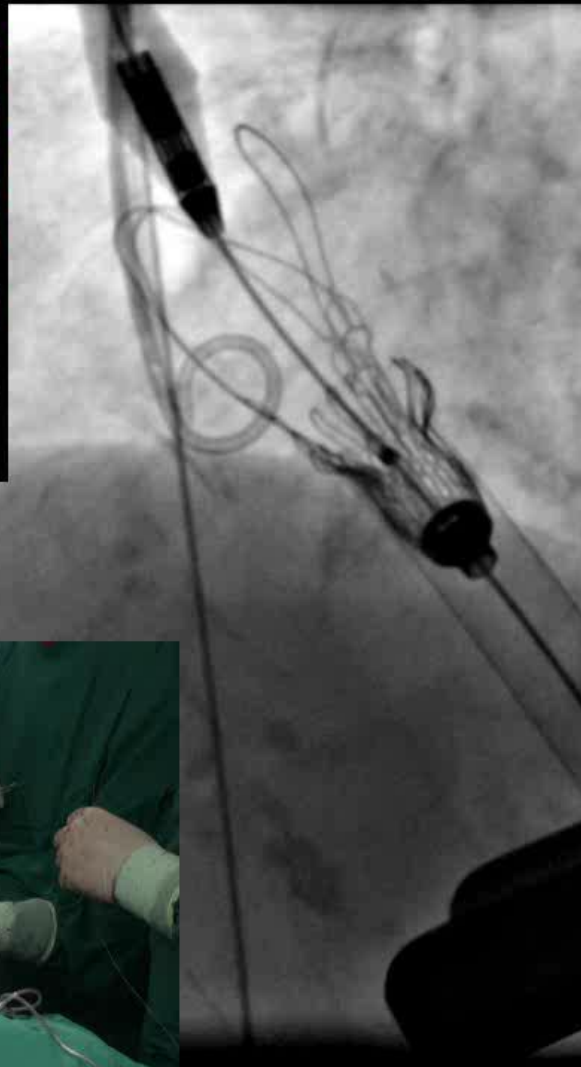
FEMORAL



# L'innovazione in Cardiologia



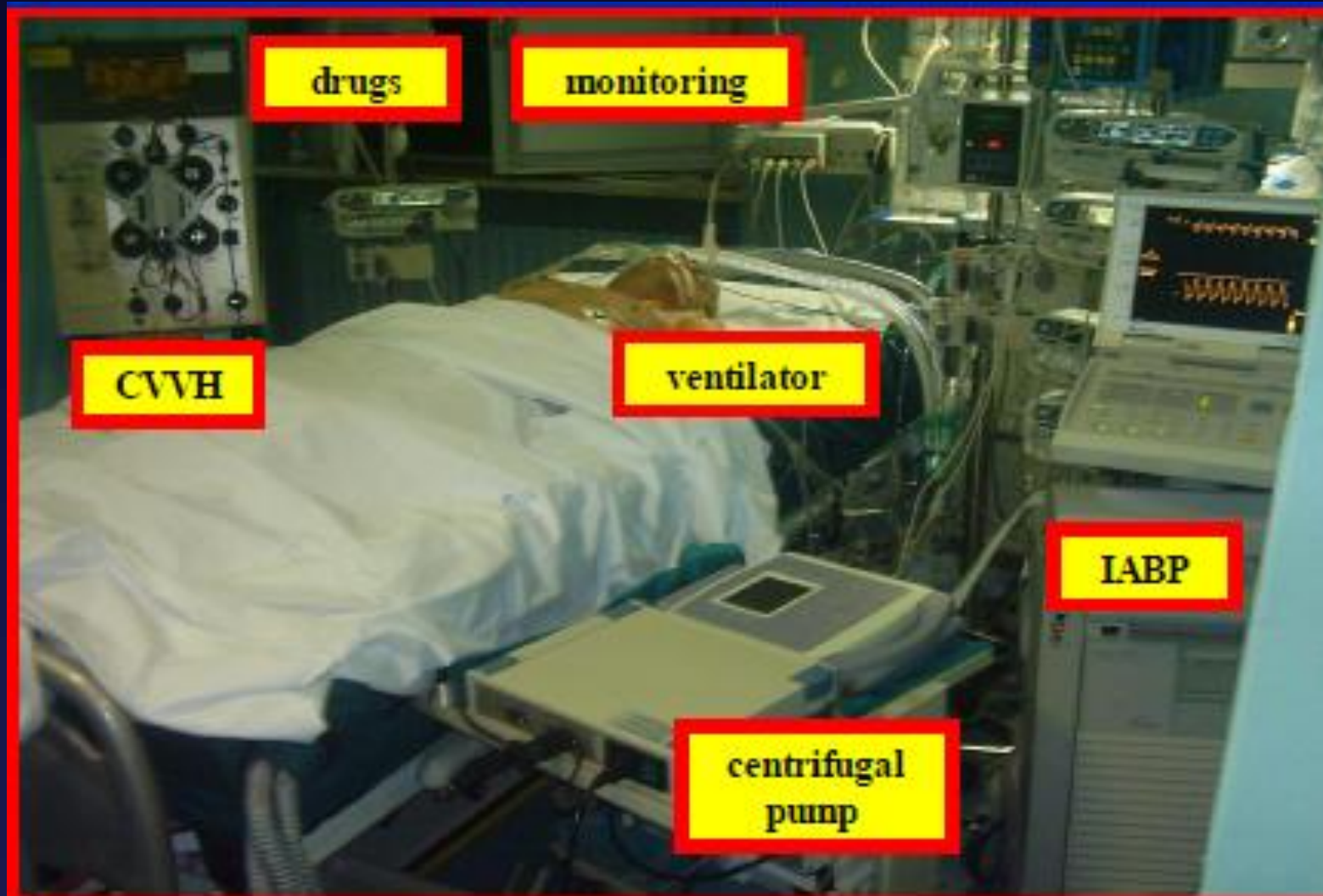
A.O.R.N. S.G. MOSCATI - AVELLINO



# L'innovazione in Cardiologia



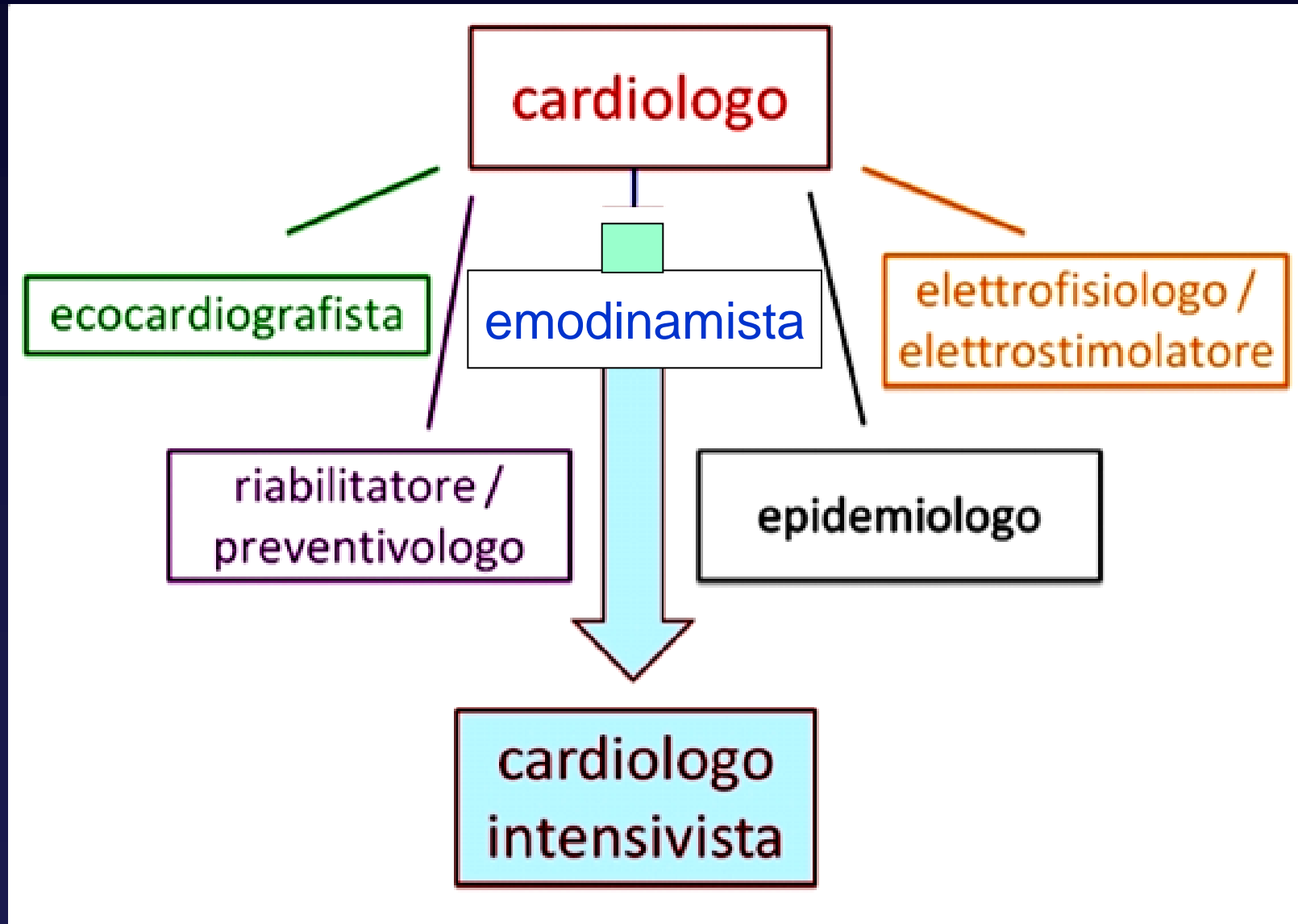
A.O.R.N. S.G. MOSCATI - AVELLINO



# L'innovazione in Cardiologia



A.O.R.N. S.G. MOSCATI - AVELLINO



# L'UTIC del futuro



A.O.R.N. S.G. MOSCATI -AVELLINO

## **Plugged UTIC**

**deve essere inserita in un  
contesto di rete;**

## **high – tech UTIC**

**dotazione strumentale  
completa e di alto livello in  
tutti i presidi;**

## **high – touch UTIC**

**competenze medico  
infermieristiche adeguate  
ed aggiornate secondo  
programmi definiti.**



## La Competenza clinica del cardiologo dell'UTIC

---

### Requisiti Generali

- ▶ Formazione di base
- ▶ Pratica clinica
- ▶ Competenza clinica multi-disciplinare
- ▶ Mantenimento della competenza ed aggiornamento
- ▶ Riferimento alla medicina EBM

### Requisiti Specifici

- ▶ Competenza gestionale di patologie cardiovascolari acute
- ▶ Competenze tecniche necessarie
- ▶ Competenze tecniche auspicabili
- ▶ Competenze organizzative-manageriali
- ▶ Dimensione affettiva e morale

# L'innovazione in Cardiologia



A.O.R.N. S.G. MOSCATI - AVELLINO

## Recommendations for the structure, organization, and operation of intensive cardiac care units

Yonathan Hasin<sup>1\*</sup>, Nicolas Danchin<sup>2</sup>, Gerasimos S. Filippatos<sup>3</sup>, Magda Heras<sup>4</sup>, Uwe Janssens<sup>5</sup>, Jonathan Leor<sup>6</sup>, Menachem Nahir<sup>1</sup>, Alexander Parkhomenko<sup>7</sup>, Kristian Thygesen<sup>8</sup>, Marco Tubaro<sup>9</sup>, Lars C. Wallentin<sup>10</sup>, and Ilia Zakke<sup>11</sup> on behalf of the Working Group on Acute Cardiac Care of the European Society of Cardiology

**Mechanical respirators:** (including CPAP delivery systems to use with face mask): one machine for two beds;

**intra-aortic balloon pump:** one consol every three beds up to the first six patients;

**haemodialysis haemofiltration machine:** should be available (probably more cost effective if supplied by nephrology department);

# L'innovazione in Cardiologia



A.O.R.N. S.G. MOSCATI - AVELLINO

## Certificazione di qualità e accreditamento come strumento di miglioramento continuo

Obiettivo dell'accreditamento è di aiutare le Società Nazionali e i singoli centri a educare i cardiologi che lavorano nelle UTIC europee a raggiungere uno standard ottimale comune, al fine di fornire lo stato dell'arte della cura in modo omogeneo a tutti i pazienti ricoverati in tutte le UTIC europee



# L'innovazione in Cardiologia

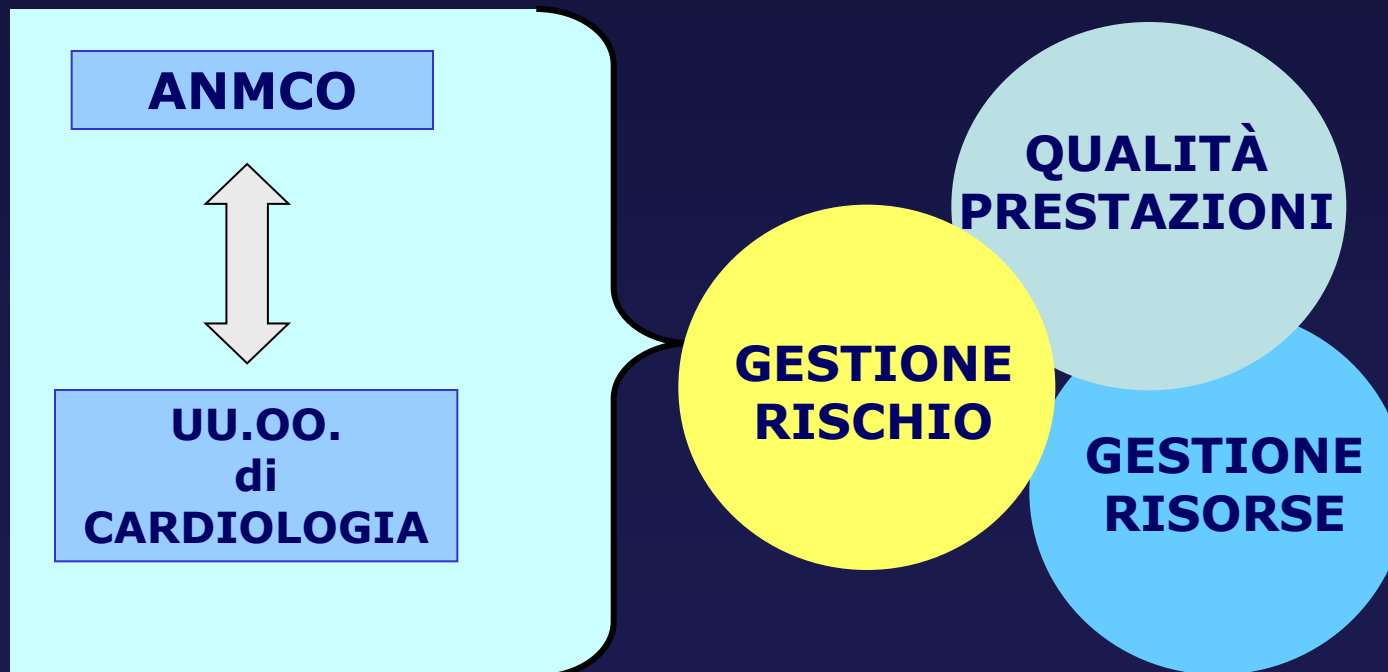


A.O.R.N. S.G. MOSCATI - AVELLINO

ANMCO sta fornendo un concreto indirizzo ed un forte contributo nella definizione di un modello organizzativo per le UU.OO. di Cardiologia secondo i dettami della *Clinical Governance* (in ottica di Certificazione ISO 9001 e di Accreditamento istituzionale),

al fine di facilitare e rendere evidente, esplicita e di uso corrente:

- la gestione dei rischi
- la misurabilità dei risultati



# L'innovazione in Cardiologia



A.O.R.N. S.G. MOSCATI - AVELLINO

**LE CARDIOLOGIE CERTIFICATE - 2009**

<b>Ospedale S. Paolo</b>	<b>Bari</b>	<b>Dr. Stefano Mancini (f.f.)</b>
<b>Ospedale Di Venere</b>	<b>Bari</b>	<b>Dr. Carlo D'Agostino</b>
<b>Ospedale Perrino</b>	<b>Brindisi</b>	<b>Dr. Gianfranco Ignone</b>
<b>Ospedale Francesco Lastaria</b>	<b>Lucera</b>	<b>Dr. Alessandro Villella</b>
<b>Ospedale Vito Fazzi (Cardiologia UTIC)</b>	<b>Lecce</b>	<b>Dr. Francesco Magliari</b>
<b>Ospedale Vito Fazzi (U.O.C. Emodinamica)</b>	<b>Lecce</b>	<b>Dr. Antonio Montinaro</b>
<b>Ospedale Moscati</b>	<b>Taranto</b>	<b>Dr. Vincenzo Lenti</b>
<b>Ospedale Giovanni Paolo II°</b>	<b>Lamezia Terme</b>	<b>Dr. Antonio Butera</b>
<b>Ospedale S. Giuseppe Moscati</b>	<b>Avellino</b>	<b>Dr. Giovanni Stanco</b>

# L'innovazione in Cardiologia



A.O.R.N. S.G. MOSCATI - AVELLINO

**GRAZIE  
PER L'ATTENZIONE**