Cos'è la TAVI ?

Procedura e risultati clinici

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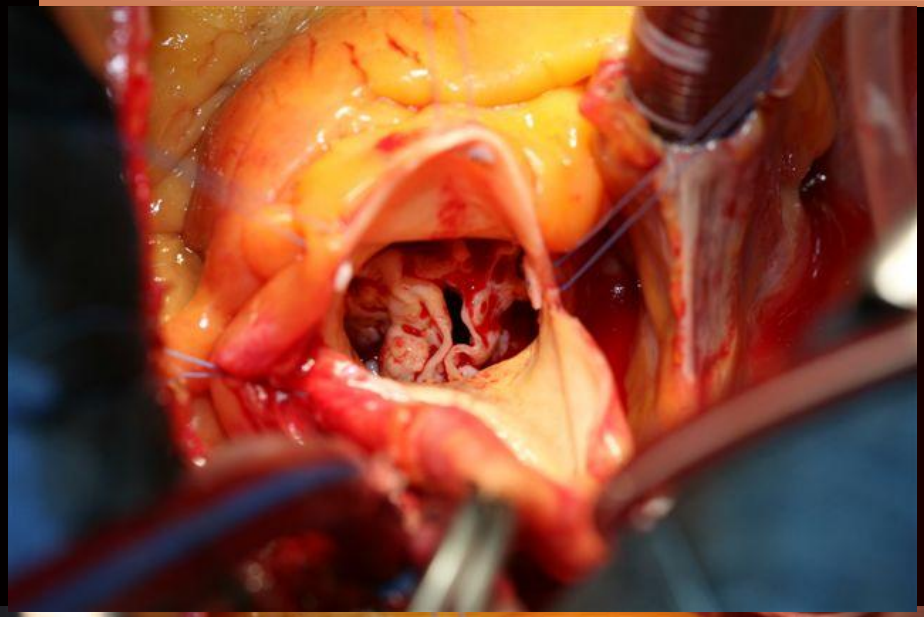
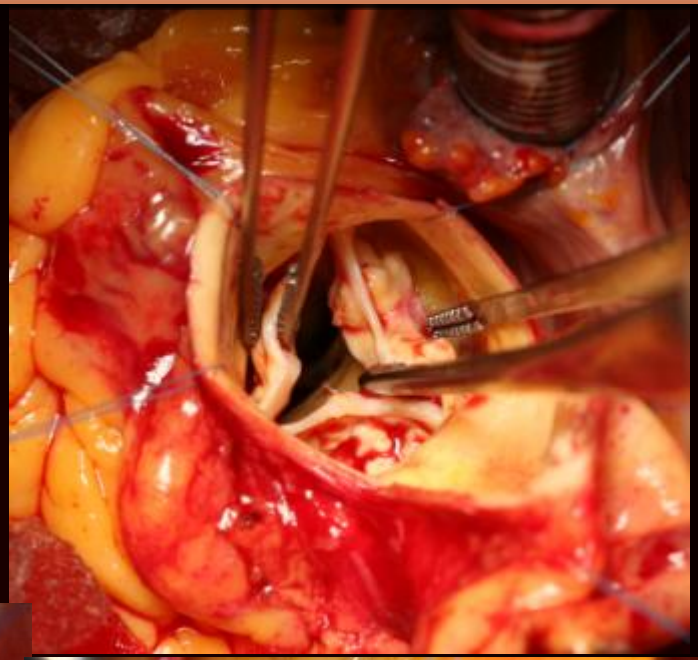
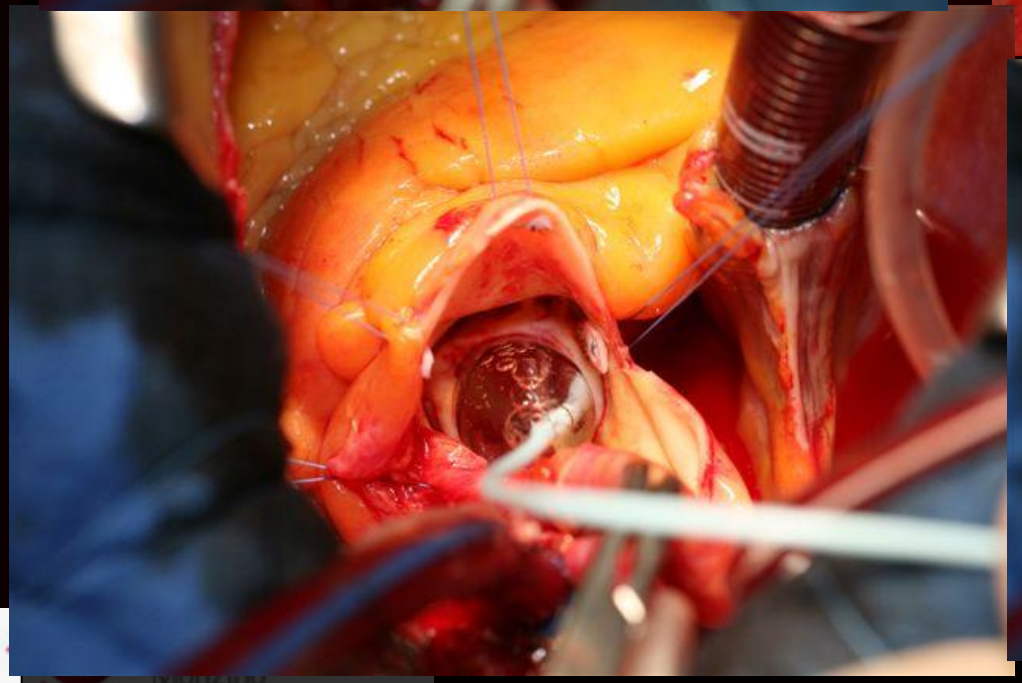
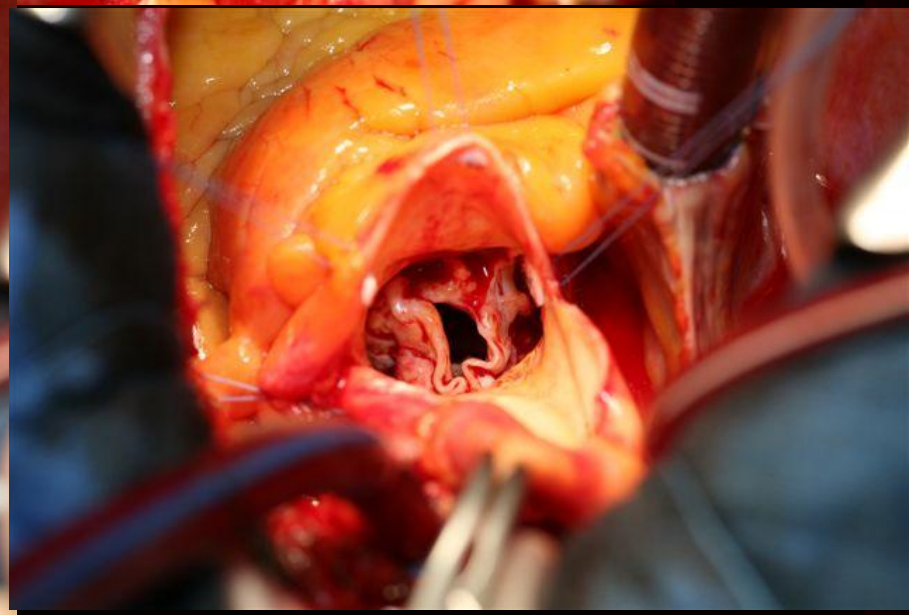
LA STENOSI VALVOLARE AORTICA CALCIFICA



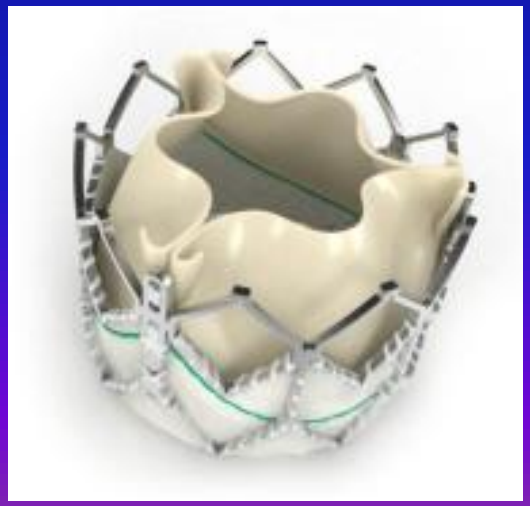






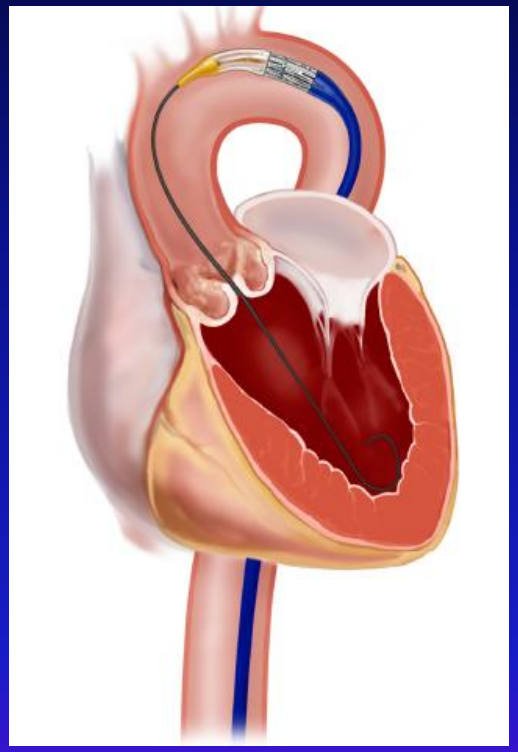
Fino ad oggi più di 30000 TAVI sono state eseguite in tutto il mondo e tale tecnica ha raggiunto ormai la sua maturità

- Nel 2002 primo impianto nell'uomo
- Nel luglio 2011, FDA approval per Edwards Sapien nei pazienti troppo fragili per sottoporli all'intervento tradizionale

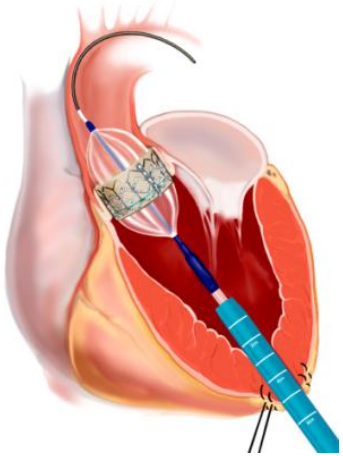


La TAVI: Transcatheter Aortic Valve Implant

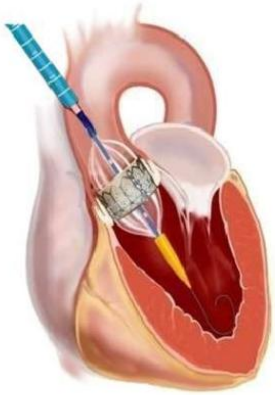
L'approccio per la TAVI



Approccio transfemorale



Approccio transapicale



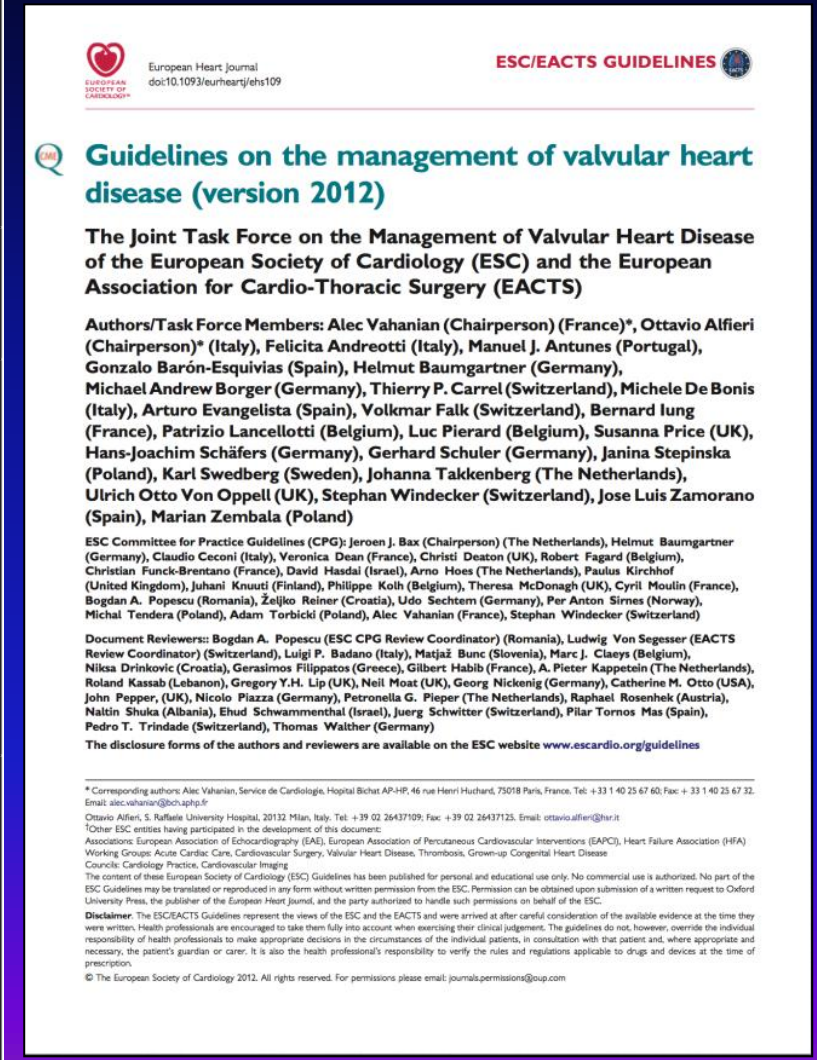
Approccio transaortico

Approccio transiliaco

APPROCCI ALTERNATIVI

La gestione della TAVI: l'heart team

Recommendations	Class [a]	Level [b]	Ref [c]
TAVI should only be undertaken with a multidisciplinary 'heart team' including cardiologists and cardiac surgeons and other specialists if necessary.	I	C	
TAVI should only be performed in hospitals with cardiac surgery on-site.	I	C	
TAVI is indicated in patients with severe symptomatic AS who are not suitable for AVR as assessed by a 'heart team' and who are likely to gain improvement in their quality of life and to have a life expectancy of more than 1 year after consideration of their comorbidities.	I	B	99
TAVI should be considered in high-risk patients with severe symptomatic AS who may still be suitable for surgery, but in whom TAVI is favoured by a 'heart team' based on the individual risk profile and anatomic suitability.	IIa	B	97



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ESC/EACTS GUIDELINES

Guidelines on the management of valvular heart disease (version 2012)

The Joint Task Force on the Management of Valvular Heart Disease of the European Society of Cardiology (ESC) and the European Association for Cardio-Thoracic Surgery (EACTS)

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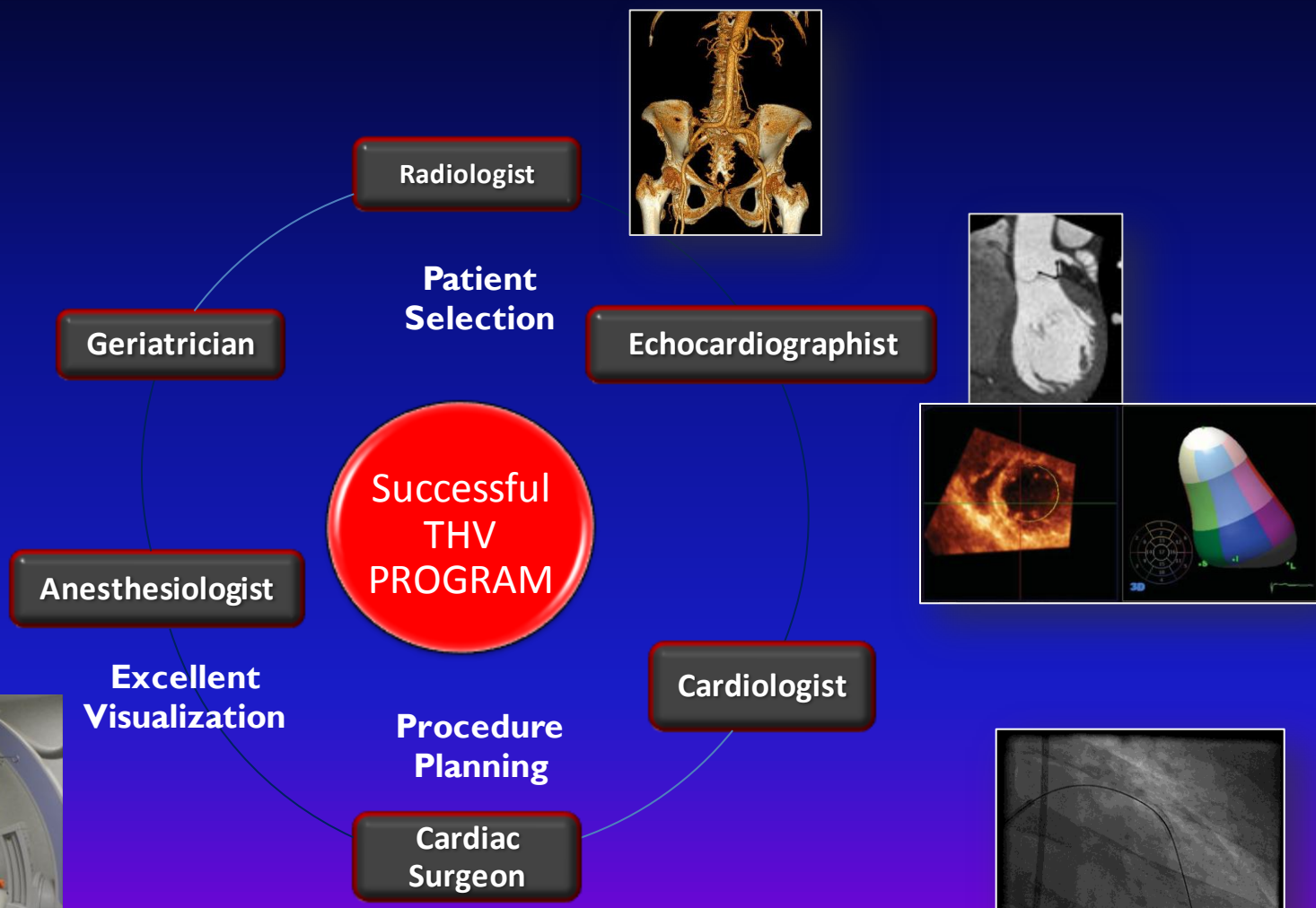
Heart Team multidisciplinare e Sala Operatoria Ibrida



Esperienza del Centro Cardiologico

340 Procedure, 338 Edwards Sapien TAVI

(Novembre 2007 - 31 Ottobre 2012)

- Trans Femorale (TF)	233
- Trans Iliaca (TI)	7
- Trans Aortobifemoral Bypass (TAB)	1
- Trans Apicale (TA)	97
- Valvuloplastica solo (tf)	2

TAVI eseguite dal team chirurgico: 309 casi

TAVI eseguite dal team cardiologico: 31 casi (solo casi TF)

Patients	ALL (n=338)	TF, TI, TAB (n=241)	TA (n=97)	P value
Age – years	81 ± 6	82 ± 6	80 ± 7	0.02
Male – n° (%)	99 (31%)	65 (29%)	34 (35%)	0.28
Logistic EuroSCORE	20.6 ± 11.5	20.0 ± 11.0	22.1 ± 12.4	0.14
Society of Thoracic Surgeon score	11.5 ± 7.7	11.0 ± 7.5	12.5 ± 7.9	0.14
NYHA class – n° (%)				0.051
I	0 (0%)	0 (0%)	0 (0%)	
II	72 (23%)	58 (26%)	14 (15%)	
III	174 (54%)	119 (54%)	55 (57%)	
IV	72 (23%)	45 (20%)	27 (28%)	
Coronary artery disease – n° (%)	169 (53%)	106 (48%)	63 (66%)	0.004
Previous myocardial infarction – n° (%)	54 (17%)	27 (12%)	27 (28%)	0.001
Previous CABG – n° (%)	41 (13%)	22 (10%)	19 (20%)	0.016
Previous PCI – n° (%)	75 (24%)	48 (22%)	27 (28%)	0.22
Peripheral vascular disease – n° (%)	142 (45%)	85 (39%)	57 (59%)	0.001
Hypertension – n° (%)	277 (87%)	191 (86%)	86 (90%)	0.44
Atrial fibrillation – n° (%)	60 (19%)	40 (18%)	20 (21%)	0.57
Permanent pacemaker – n° (%)	33 (10%)	19 (9%)	14 (15%)	0.11
Creatinine level >1.5 mg/dl – n° (%)	53 (17%)	37 (17%)	16 (17%)	0.99
Diabetes mellitus – n° (%)	75 (24%)	48 (22%)	27 (28%)	0.22
Dyslipidemia – n° (%)	185 (58%)	129 (58%)	56 (58%)	0.99

Dati procedurali

THE SOURCE XT REGISTRY	Transfemoral N = 1694	Transapical N = 906
Total Procedure Time (min, mean ±SD)	79.7 ±51.7	90.7 ±56.3
Fluoroscopy Time (min, mean ±SD)	15.0 ±20.8	7.4 ±19.3
General Anesthesia (%)	50.1	96.0

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- Anestesia generale: 98%
- Degenza in terapia intensiva: 1.2 giorni
- Degenza postoperatoria in reparto: 5.4 giorni

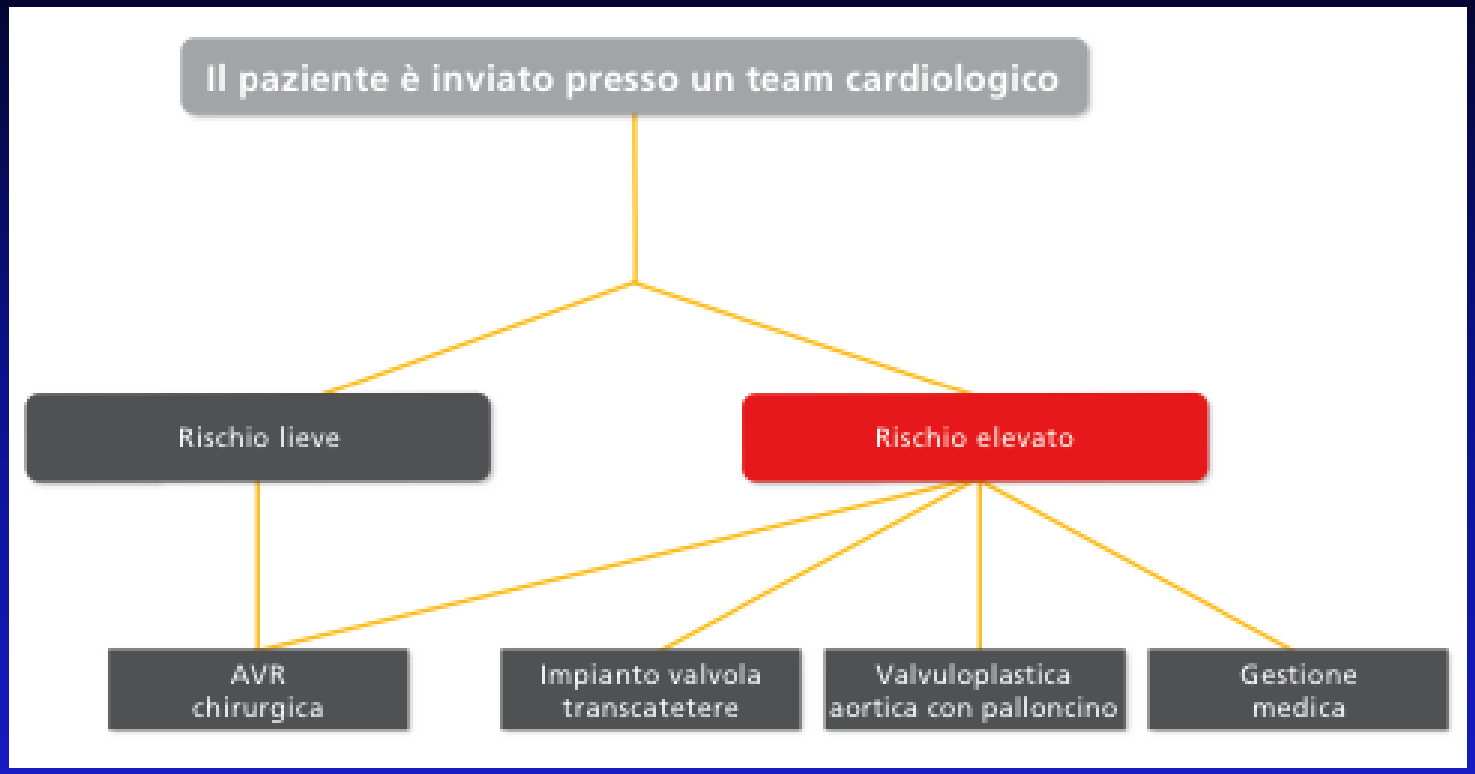
Results	Periprocedural (FU in 338)	30 Days (FU in 331)	1 Year (FU in 306)	2 Years (FU in 188)
Death				
From any cause	9 (2.6%)	13 (4.1%)	43 (13.0%)	60 (31.9%)
From cardiovascular causes	9 (2.6%)	11 (3.5%)	23 (7.5%)	30 (15.0%)
Repeat hospitalization		6 (1.9%)	42 (13.7%)	49 (26.1%)
Stroke or TIA		6 (1.9%)	11 (3.6%)	14 (7.4%)
Myocardial infarction		10 (3.1%)	14 (4.6%)	15 (8.0%)
Vascular complication				
Major		19 (6.0%)		
Minor		8 (2.5%)	9 (2.9%)	
Endocarditis		0 (0%)	4 (1.3%)	4 (2.1%)
Major bleeding		4 (1.3%)		
New pacemaker		21 (6.6%)	23 (7.5%)	25 (13.3%)
Thoracentesis		19 (6.0%)	20 (6.5%)	20 (10.6%)
Pericardiocentesis		7 (2.2%)		8 (4.3%)
Pulmonary disease		4 (1.3%)	8 (2.6%)	9 (4.8%)

CONCLUSIONI 1

- La TAVI è diventata rapidamente una valida alternativa alla chirurgia e alla terapia medica nei pazienti ad alto rischio e/o fragili.

- L'intervento di TAVI deve essere deciso da un heart team multidisciplinare e questa procedura deve essere sempre eseguita in una sala operatoria ibrida da un TAVI team specializzato.

CONCLUSIONI 2



Le nuove tecniche e tecnologie sono obbligatorie per offrire le migliori opzioni terapeutiche ai pazienti affetti da stenosi valvolare aortica (3% di sopravvivenza a 5 anni per pz. affetti da stenosi valvolare aortica inoperabile)