

TAVI in Israel 2008-2013



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החוג לקרדיולוגיה התערבותית
THE ISRAEL WORKING GROUP ON INTERVENTIONAL CARDIOLOGY

Background

- **Trans-catheter aortic valve implantation (TAVI) is an emerging novel technology for the treatment of high-risk AS patients.**
- **Two commercially available valve systems:**



TAVI in Israel: timeline

- **First cases:**
 - August 2008 – Edwards
 - September 2008 – CoreValve
- **January 2010: full reimbursement for TAVI .**
- **2011: Establishment of I-TAVI, Israel TAVI ongoing registry.**

10 Centers:

- Carmel, Haifa
- Rambam, Haifa
- Rabin, Petach-Tikva
- Tel-Aviv MC, Tel-Aviv
- Sheba, Ramat-Gan
- Wolfson, Holon
- Kaplan, Rechovot
- Shaare Tzedek, Jerusalem
- Hadassah, Jerusalem
- Soroka, Beer Sheba



Israel I-TAVI registry

The screenshot displays the National I-TAVI Registry web application in a Windows Internet Explorer browser. The page header includes the text "החוג לקרדיולוגיה התערבותית" and "THE ISRAEL WORKING GROUP ON INTERVENTIONAL CARDIOLOGY" in Hebrew and English, along with the "ISRAEL HEART SOCIETY" logo. A navigation menu contains "Patient", "Documents", "Help Desk", "Administration", and "Logout". A user greeting "Hello, ADMIN ADMIN" is visible below the menu.

The main content area is titled "Base line" and features a "Patient Details" section with the following information: "First initials name: w", "Last initials name: s", "Hospital: Hadassah", "Number at site#: 14", "Valve Brand: Corevalve", and "Gender: Female".

The "Baseline characteristics" section is divided into two columns. The left column contains a list of categories: ECG, ECHO-PRE, Angio-PRE, Procedural details, Post-implantation, In Hospital, and General information & Status. The right column contains the following data:

Characteristic	Value	Unit
Euroscore:	40	(%)
STS score:	12	
Coronary disease:	<input type="radio"/> Yes <input checked="" type="radio"/> No	
S/A thoracotomy:	<input checked="" type="radio"/> Yes <input type="radio"/> No	
PHT:	<input checked="" type="radio"/> Yes <input type="radio"/> No	
PA sys pressure:	76	(mmHg)
Pulmonary:	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Porcelain aorta:	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Pacemaker:	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Diabetes:	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Other illnesses:	<input type="checkbox"/> Hepatic <input checked="" type="checkbox"/> Malignancy <input type="checkbox"/> Other neurologic <input type="checkbox"/> Parkinson <input checked="" type="checkbox"/> PVD <input type="checkbox"/> S/A CVA	
Hemoglobin:	12.4	(g/dl)
Thrombocytes:	323	(n x 1000)
Creatinine:	1.8	(mg%)

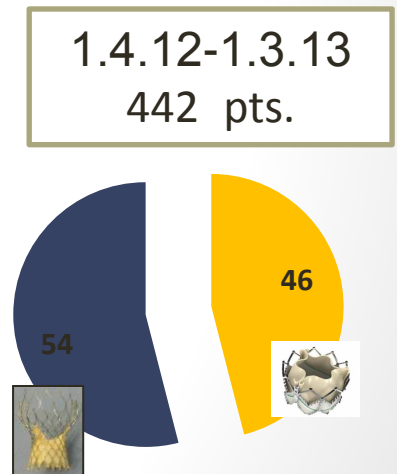
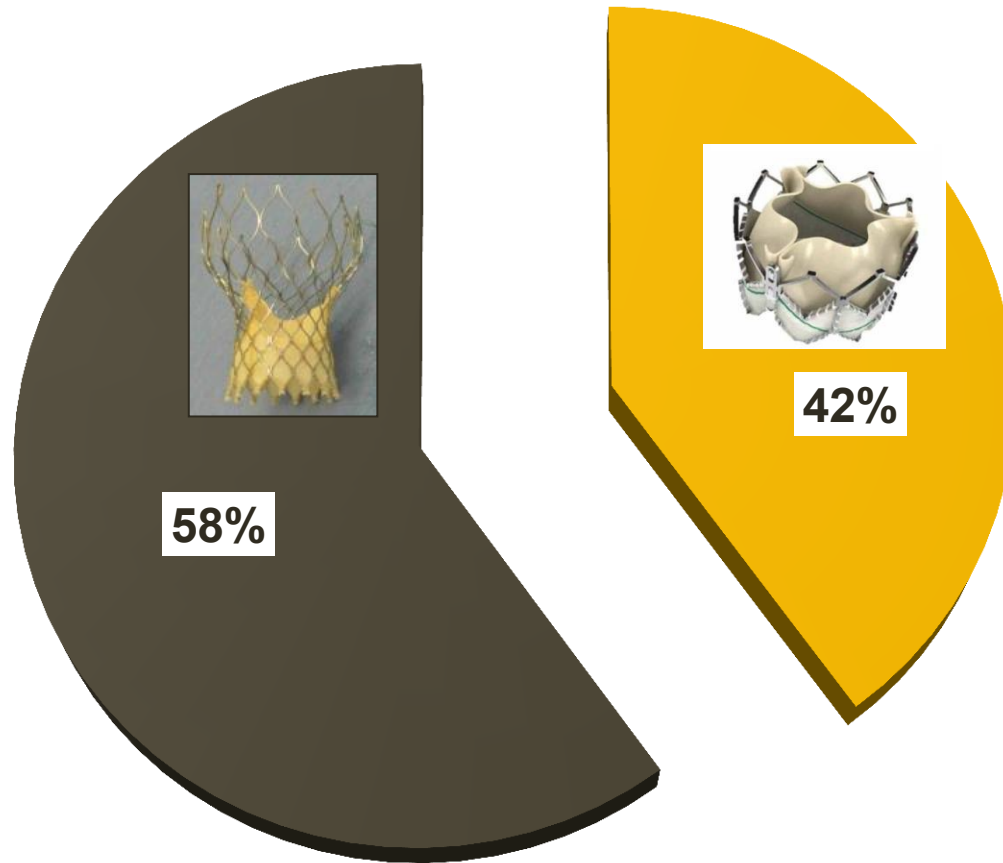
The browser's taskbar at the bottom shows the Start button, several open applications (Inbox - Microsoft Outlook, Microsoft Excel - National I-TAVI Registry, Microsoft PowerPoint - National I-TAVI Registry), and the system tray with the date and time (23:18).

Collection of data

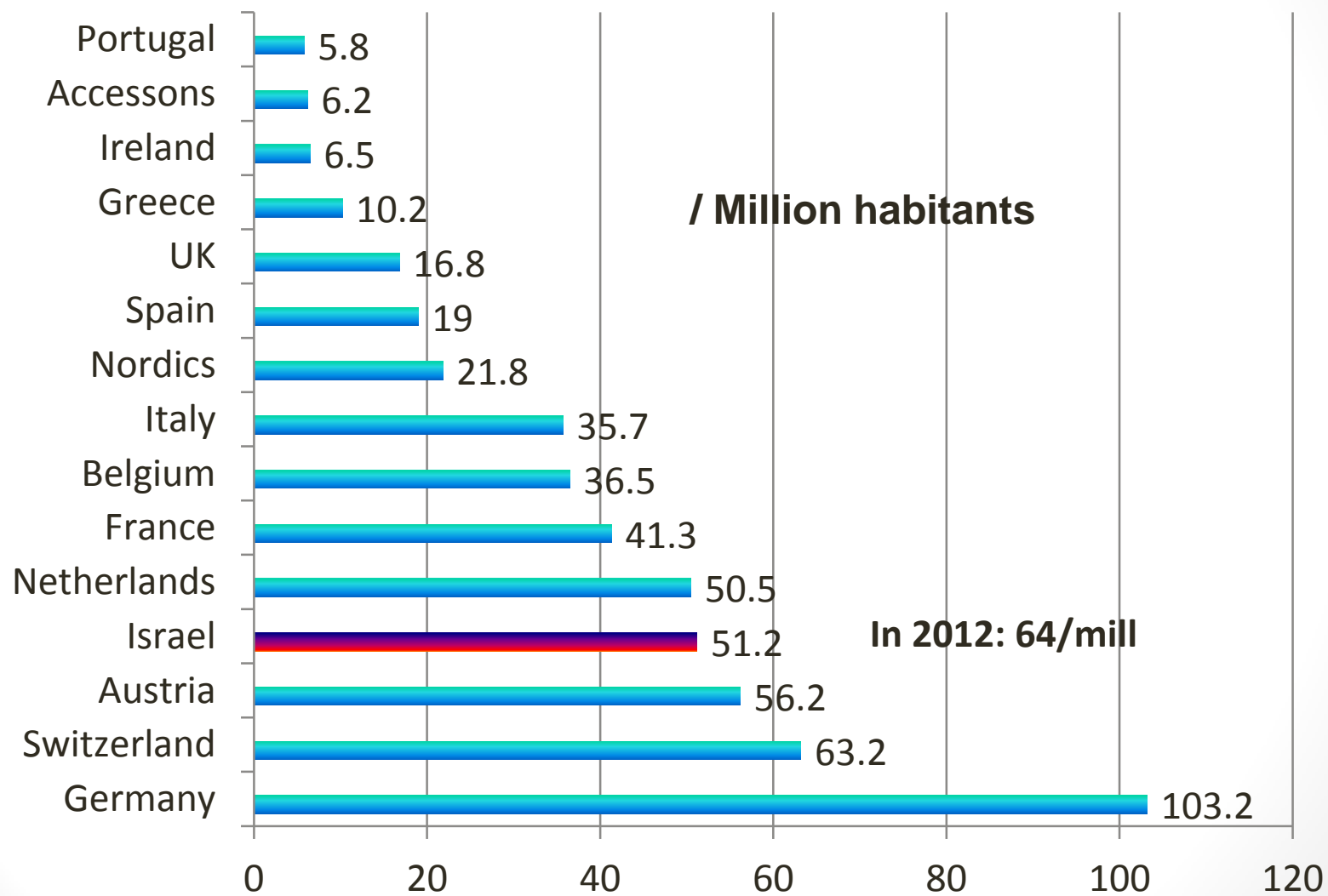
- **All 10 centers: partial data (valve type, approach, mortality)**
- **5 centers (700 patients): full clinical and procedural data**
- **Cross check total numbers with both commercial companies**

TAVI in Israel 1.3.2013

- Total implants: 1495



TAVI cases in EU (2011)



Patient Characteristics

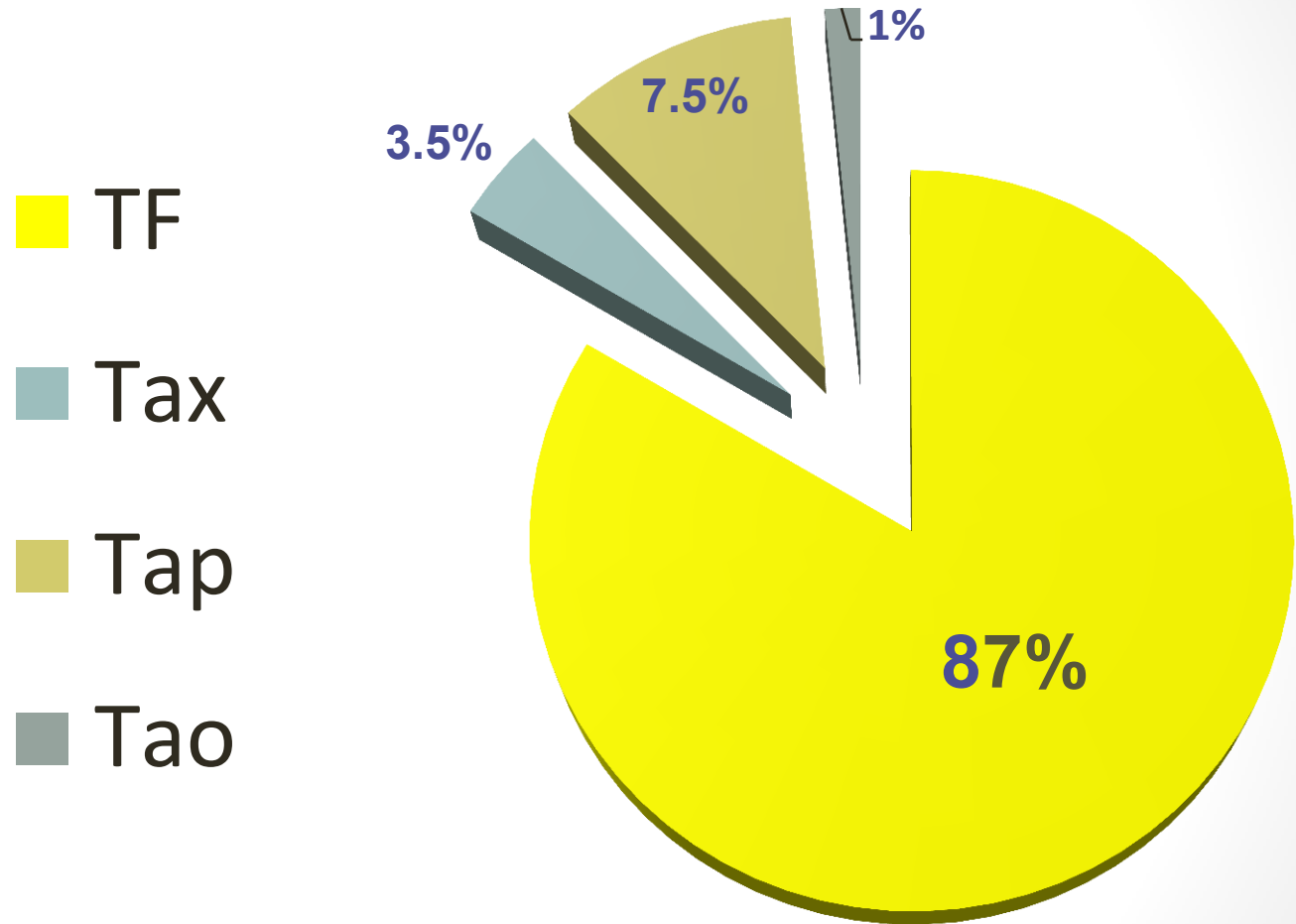
Mean +/- SD

Age (years)	82± 6
Logistic EuroSCORE (%)	23.3±15
Female	57.3%
BMI	30 (16.4-50)
NYHA	I-II: 5% III-IV: 95%
DM	30%
Hb (g/dl)	11.8±3.9
Creatinine (μmol/L)	1.18±0.67

Baseline Characteristics

AV area (cm ²)	0.66±0.17
AV grad, max (mmHg)	76±23
AV grad, mean (mmHg)	48±16
LVEF (%)	54±10
Annulus (mm)	22.2±2.1
MR (severe, %)	8

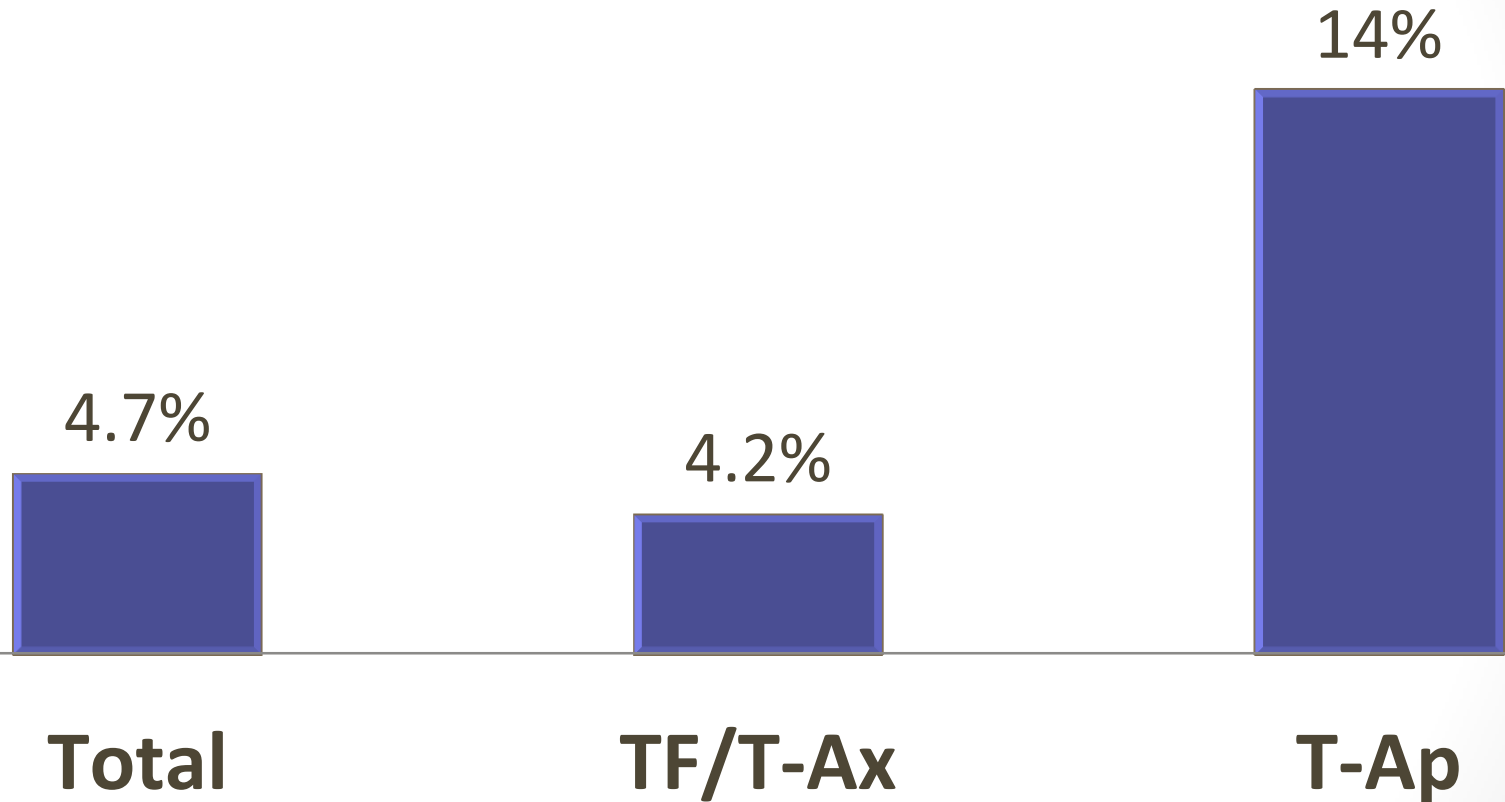
TAVI in Israel 1.3.2013



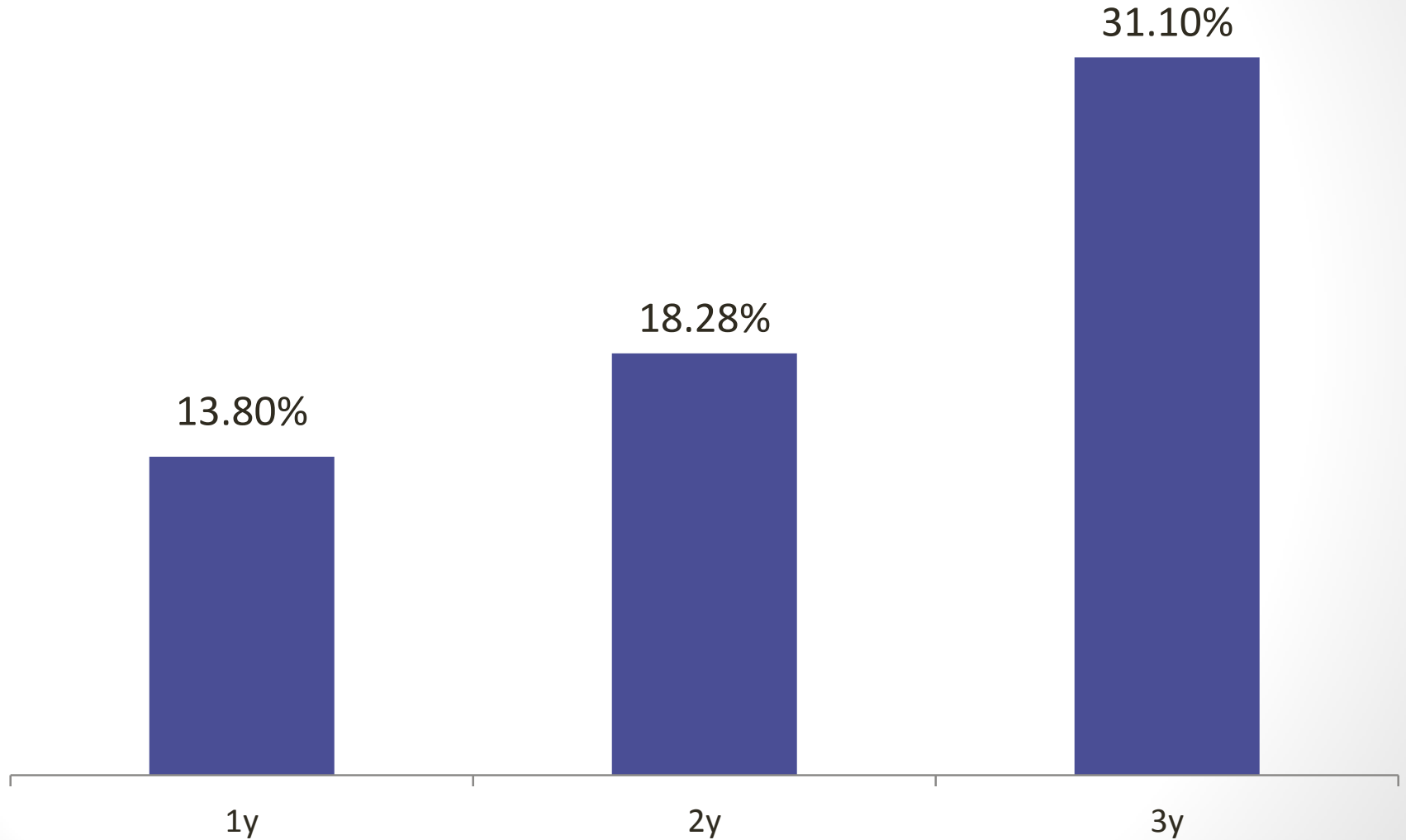
Procedural Parameters

	%
Procedural success	99
Local Anesthesia only	56
TEE	40
Local Anesth only (1.1.12-)	76
2nd valve needed	3

Mortality - 30d.



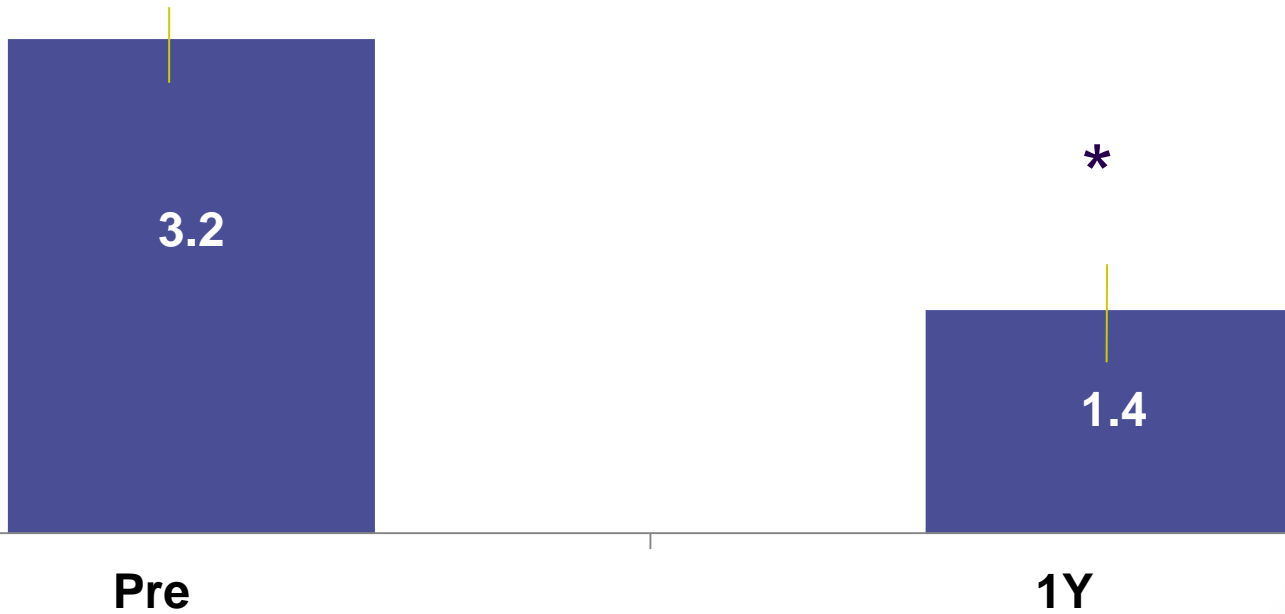
Overall Mortality – long term



Adverse Events – In Hospital

Death	4.7%
Aortic Dissection	0
Cardiac Tamponade	2%
Access Site Complication	11.2%
Blood transfusion	18%
Myocardial Infarction	0
Pacemaker	21% (29%MDT /6%ES)
Renal Failure	3%
Major Stroke	2.2%
Discharge day (median)	6
>10 d	15%

Change in median NYHA FC



TAVI in Israel – Conclusions:

- **Transcatheter Aortic Valve Implantation is rapidly expanding in Israel**
- **The procedure is safe and effective with favorable results in this complex group of high-risk patients.**
- **Further expansion of the procedure and its indications and improvement of its results and outcome is awaited.**
- **Compliance and maintenance of I-TAVI registry is crucial for quality measurements and future directions of this evolving procedure**

TAVI: partnership



Thanks



- ...N. Khader, R. Jaffe, A. Elami, A. Kerner, A. Rogouin, G. Bollotin, R. Kornowski, A. Assali, C. Vaknin-Assa , A. Finkelstein, S. Bazan, Y. Ben-Gal, V. Guetta, A. Segev, E. Raanani, V. Turkisher, Y. Almagor, J. Balkin, S. Silberman, C. Lotan, D. Planer, A. Korach, K. George, O. Ayzenberg, G. Gendelman, C. Cafri, A. Abu-Ful, M. Merkin...