

# Cath Lab and Interventional Survey (CLICS) 2024 - Herzliya-Medical-Center report

Table 1: Patients characteristics

	Overall	Herzliya-Medical-Center, n (%)
n	4565	192
Age (mean (SD))	66.24 (12.17)	66.18 (9.93)
Age group (%)		
50 <= Age < 70	2247 ( 49.7)	110 ( 57.3)
Age < 50	402 ( 8.9)	11 ( 5.7)
Age >= 70	1876 ( 41.5)	71 ( 37.0)
Gender = Male (%)	3275 ( 72.1)	141 ( 73.4)
Diabetes = Yes (%)	1782 ( 43.4)	127 ( 70.6)
COPD = Yes (%)	297 ( 7.2)	12 ( 6.7)
Chronic renal failure = Yes (%)	475 ( 11.6)	30 ( 16.7)
Chronic dialysis = Unknown (%)	475 (100.0)	30 (100.0)
Prior stroke or TIA = Yes (%)	269 ( 6.5)	3 ( 1.7)
Prior PCI = Yes (%)	1621 ( 39.5)	78 ( 43.3)
Prior CABG or valve surgery = Yes (%)	362 ( 8.8)	7 ( 3.9)
Heart failure (%)		
Yes	630 ( 15.3)	1 ( 0.6)
No	2867 ( 69.8)	177 ( 98.3)
Unknown	608 ( 14.8)	2 ( 1.1)
% LV ejection fraction (mean (SD))	51.48 (11.86)	10.00 (NA)
Atrial fibrillation = Yes (%)	406 ( 9.9)	13 ( 7.2)

Table 2: Procedure type distribution

	Overall n (%)	Herzliya-Medical-Center,n (%)
N	4565	192
Coronary	4109 (90.0)	180 (93.8)
Structural - Valvular	170 ( 3.7)	10 ( 5.2)
Structural - non valvular	49 ( 1.1)	1 ( 0.5)
Peripheral	30 ( 0.7)	2 ( 1.0)
Other	271 ( 5.9)	0 ( 0.0)

Table 3: Procedure type distribution among coronary procedure patients

Patient admission type	Overall	Herzliya-Medical-Center
Elective (from home)	39% (1,608)	98% (176)
Hospitalized (including urgent admission from emergency department - primary PCI, unstable NSTEMI etc.)	61% (2,501)	2% (4)
<b>Total</b>	<b>100% (4,109)</b>	<b>100% (180)</b>

Table 4: Time of procedure distribution

	Overall	Herzliya-Medical-Center
Regular working hours	84.11% (3,456)	98.89% (178)
Off-working hours / weekend	15.87% (652)	1.11% (2)
Missing	0.02% (1)	0.00% (0)
<b>Total</b>	<b>100.00% (4,109)</b>	<b>100.00% (180)</b>

Table 5: Indication for coronary procedure distribution

Indication for procedure	Overall	Herzliya-Medical-Center
Diagnostic cath before cardiac surgery	2% (73)	4% (7)
Diagnostic cath before structural percutaneous intervention (e.g. TAVI)	3% (105)	3% (6)
Heart failure symptoms	4% (182)	1% (2)
LBBB of unknown age	0% (4)	0% (0)
Non STEMI	20% (830)	1% (1)
Other	5% (201)	2% (3)
Out of hospital sudden death	0% (14)	0% (0)
Planned PCI (Staged PCI, after Heart-team discussion etc.)	6% (231)	10% (18)
Pre / Post organ transplant	1% (34)	0% (0)
Stable angina	23% (939)	79% (143)
STEMI	10% (426)	0% (0)
STEMI - Late arrival (>12 hrs)	1% (46)	0% (0)
Unstable angina (troponin negative ACS)	25% (1,022)	0% (0)
NA	0% (2)	0% (0)
<b>Total</b>	<b>100% (4,109)</b>	<b>100% (180)</b>

Table 6: Arterial access distribution among coronary procedure patient

Arterial access	Overall	Herzliya-Medical-Center
Right radial artery	78% (3,219)	91% (163)
Left radial artery	9% (377)	8% (15)
Femoral artery	12% (477)	1% (1)
Brachial artery	0% (10)	1% (1)
Other	1% (21)	0% (0)
NA	0% (5)	0% (0)
<b>Total</b>	<b>100% (4,109)</b>	<b>100% (180)</b>

Table 7: Type of coronary procedure

Type of coronary procedure	Overall	Herzliya-Medical-Center
Diagnostic angiography only (no PCI done)	47.41% (1,948)	40.00% (72)
Percutaneous coronary intervention (PCI)	52.54% (2,159)	60.00% (108)
Coronary fistulae closure	0.02% (1)	0.00% (0)
NA	0.02% (1)	0.00% (0)
<b>Total</b>	<b>100.00% (4,109)</b>	<b>100.00% (180)</b>

Table 8: Clinical recommendation among stable angina patient

clinical recommendation	Overall	Herzliya-Medical-Center
Cardiac surgery	6% (54)	2% (3)
Conservative/medical treatment	47% (441)	37% (53)
Heart team discussion	1% (7)	0% (0)
Immediate PCI	40% (372)	52% (75)
Immediate PCI with staged PCI procedure (Partial revascularization with planned additional PCI)	4% (42)	8% (12)
Other structural heart intervention	1% (6)	0% (0)
Planned PCI at future time	1% (12)	0% (0)
TAVI	1% (5)	0% (0)
<b>Total</b>	<b>100% (939)</b>	<b>100% (143)</b>

Table 9: Clinical recommendation among \*urgent patient

clinical recommendation	Overall	Herzliya-Medical-Center
Cardiac surgery	6% (138)	0% (0)
Conservative/medical treatment	34% (787)	0% (0)
Heart team discussion	2% (43)	0% (0)
Immediate PCI	51% (1,186)	100% (1)
Immediate PCI with staged PCI procedure (Partial revascularization with planned additional PCI)	5% (119)	0% (0)
Other structural heart intervention	1% (27)	0% (0)
Planned PCI at future time	2% (36)	0% (0)
TAVI	0% (6)	0% (0)
<b>Total</b>	<b>100% (2,342)</b>	<b>100% (1)</b>

*Note:*

\*patients with one of the following indication: Unstable angina (troponin negative ACS)/ Non STEMI/ STEMI/ STEMI - Late arrival (>12 hrs)/ LBBB of unknown age/ Out of hospital sudden death

Table 10: Ischemia evaluation among patients with stable angina who underwent PCI

	Overall	Herzliya-Medical-Center
N	438	86
Non invasive test ischemia = Yes (%)	307 (70.1)	83 (96.5)
Functional (e.g. Ergometry, stress echo, SPECT) = Yes (%)	289 (66.0)	77 (89.5)
Anatomical - Coronary CT angiography	33 ( 7.5)	11 (12.8)
FFR / IFR used = Yes (%)	15 ( 3.4)	3 ( 3.5)
IVUS used = Yes (%)	5 ( 1.1)	0 ( 0.0)
OCT used = Yes (%)	3 ( 0.7)	0 ( 0.0)

Table 11: Patients with stable angina who underwent PCI characteristics

	Overall, n (%)	Herzliya-Medical-Center, n (%)
N	438	86
Multivessel pci = Yes	63 (14.4)	6 ( 7.0)
Number of lesions treated		
0	8 ( 1.8)	0 ( 0.0)
1	290 (66.2)	48 ( 55.8)
2	110 (25.1)	26 ( 30.2)
3	18 ( 4.1)	8 ( 9.3)
4	12 ( 2.7)	4 ( 4.7)
Native coronary = Yes	433 (98.9)	86 (100.0)
SVG = Yes	3 ( 0.7)	0 ( 0.0)
LIMA/RIMA = Yes	3 ( 0.7)	0 ( 0.0)
Other arterial conduit = Yes	0 ( 0.0)	0 ( 0.0)

Table 12: Device types used among patients with stable angina who underwent PCI

	Overall, n (%)	Herzliya-Medical-Center, n (%)
N	1839	87
Drug eluting stent	1683 (91.5)	83 (95.4)
Bare metal stent	5 ( 0.3)	0 ( 0.0)
Biodergradable scaffold	0 ( 0.0)	0 ( 0.0)
Covered stent (stent graft)	2 ( 0.1)	0 ( 0.0)
Drug coated balloon	99 ( 5.4)	4 ( 4.6)
Cutting balloon	11 ( 0.6)	0 ( 0.0)
Scoring balloon	10 ( 0.5)	0 ( 0.0)
POBA	184 (10.0)	3 ( 3.4)
<b>None</b>	<b>30 ( 1.6)</b>	<b>1 ( 1.1)</b>

*Note:*

\*it is possible to have more then one stend per patient

Table 13: Procedural complications

	All coronary procedurers		Diagnostic procedures		PCI procedures	
	Overall	Herzliya-Medical-Center	Overall	Herzliya-Medical-Center	Overall	Herzliya-Medical-Center
n	4107	180	1948	72	2159	108
Coronary artery dissection (%)	32 (0.8)	0 (0.0)	0 (0.0)	0 (0.0)	32 (1.5)	0 (0.0)
Coronary artery perforation (%)	6 (0.1)	0 (0.0)	0 (0.0)	0 (0.0)	6 (0.3)	0 (0.0)
No reflow / distal embolization (%)	21 (0.5)	0 (0.0)	1 (0.1)	0 (0.0)	20 (0.9)	0 (0.0)
Significant (>1.5 mm) side branch occlusion (%)	8 (0.2)	0 (0.0)	0 (0.0)	0 (0.0)	8 (0.4)	0 (0.0)
Tamponade (%)	3 (0.1)	0 (0.0)	1 (0.1)	0 (0.0)	2 (0.1)	0 (0.0)
Ventricular arrhythmia (%)	7 (0.2)	0 (0.0)	1 (0.1)	0 (0.0)	6 (0.3)	0 (0.0)
Significant conduction abnormality requiriung pacing (%)	1 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.0)	0 (0.0)
CPR (%)	11 (0.3)	0 (0.0)	3 (0.2)	0 (0.0)	8 (0.4)	0 (0.0)
Urgent cardiac surgery (%)	1 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.0)	0 (0.0)