



The workload of the interventional cardiology centers from Romania: a 2023-2024 overview and 2014-2024 trends

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Abstract

This article presents data on the workload of interventional cardiology centers in Romania for the years 2023 and 2024. All interventional cardiology centers in Romania were requested to complete a standardized form, documenting the total number of various procedures performed throughout 2023-2024. The report presents the total number of coronary interventions, peripheral interventions, and structural heart disease interventions conducted in Romania in 2023 and 2024. Additionally, it includes a comparison of the workload of these centers from 2014 to 2024.

Keywords

interventional cardiology, percutaneous coronary interventions, stents.

Rezumat

Acest articol prezintă date privind volumul de muncă al centrelor de cardiologie intervențională din România pentru anii 2023 și 2024. Membrii din toate centrele de cardiologie intervențională din România au fost rugați să completeze un formular standard care să detalieze numărul total de proceduri efectuate în cursul anilor 2023 și 2024. Raportul evidențiază numărul total de intervenții coronariene, intervenții periferice și intervenții pentru boli cardiace structurale efectuate în România în 2023 și 2024. În plus, include o comparație a volumului de muncă al acestor centre din 2014 până în 2024.

Cuvinte cheie

cardiologie intervențională, intervenții coronariene percutane, stenturi.

Introduction

This article provides data of the workload of the interventional cardiology centers from Romania during 2023 and 2024, and it highlights the trends in coronary or peripheral interventions between 2014 and 2024¹⁻¹⁰. All interventional cardiology centers in Romania were requested to fill out a standardized form, documenting the total number of various procedures conducted throughout 2023 and 2024. This continues the data collection effort from previous years, ensuring a consistent tracking of trends. Data was collected at the initiative of the Interventional Cardiology Working Group of Romanian Society of Cardiology.

Tables 1 and 2 summarize the data from 2023 and 2024, respectively, provided by 45 public and private interventional cardiology centers in Romania. In 2024, Romania had 53 interventional cardiologists in training, 180 full interventional cardiologists, and 71 functional angiographs. The exact number of full interventional cardiologists remains challenging to determine due to some practitioners working in both public and private institutions.

The annual number of PCIs in each interventional cardiology center in Romania is shown in Figures 1 and 2. A direct comparison

of data from 2014 to 2024 highlights the continuous increase in the workload of these centers until 2021, when a clear decrease is observed (Figure 3). In 2021, the number of PCIs increased close to the pre-pandemic era. In 2024, 26,097 PCIs were performed in Romania compared to 24,212 in 2023, representing a 7.2% increase. The total number of primary PCIs increased by 9% in 2024 compared to 2023 (Figure 4).

In 2024, 2,478 peripheral angioplasties were performed, representing a 6.2% increase compared to 2023 (Figure 5). The number of TAVI procedures doubled annually between 2015 and 2019, and this trend continued in 2024 with a 19.6% increase compared to 2023 (Figure 6). The number of procedures performed for structural heart diseases increased by 63.6% from 2023 to 2024 (Figure 6).

The data analysis in this study is limited to centers that responded to the Interventional Cardiology Working Group's request. Some centers did not participate or provided inadequate data. We emphasize the importance of participation and accurate data from all interventional cardiology centers in Romania to better understand the phenomenon.

There is a need for a Mandatory Interventional Cardiology National Registry to objectively monitor these healthcare services in a standardized manner and guide the development of interventional cardiology in Romania.

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Table 1 - Reported data from all Interventional Cardiology Centers from Romania in 2023.

CITY	Bucharest								
Hospital	CC. Ilescu	SUUB	SUB	Agrippa Ionescu	Militar	Bagdasar	Elias	Sf. Ioan	Ponderas
Nr. Of Cath labs	3	3	2	2	3	2	2	1	1
Nr. Independent operators	7	6	6	3	8	3	4	2	6
Nr. in training operators	6	8	2	0	4	1	0	0	0
Coronary Interventions									
Coronarography	2638	2333	1587	880	2540	1124	1430	319	276
Total nr. of PCI ¹	1102	1141	722	158	851	568	693	79	57
PCI without stents	73	57	25	22	117	5	12	5	2
PCI with stents	1029	1084	697	136	734	563	681	74	55
STEMI with primary PCI	451	399	545	15	268	336	402	7	15
PCI left main	ur	46	109	7	48	56	54	ur	2
CTO	ur	20	37	11	11	28	23	ur	2
Stents per patient ²	1.55	1.38	1.80	1.15	1.34	1.41	1.37	1.24	1.50
Total nr. of stents	1603	1492	1255	183	1140	794	937	98	85
Cutting, Scoring	35	1	5	7	3	18	2	0	1
Rotablation	9	0	7	2	10	0	8	0	2
Shockwave	5	0	5	5	11	0	1	0	1
FFR/IFR	15	3	34	18	0	6	9	0	0
IVUS	12	3	17	10	1	5	8	0	0
OCT	14	5	33	2	0	0	0	0	0
Peripheral interventions									
Peripheral PTA ³	261	0	0	27	295	2	12	43	40
Renal PTA	0	0	0	0	4	1	0	0	0
Carotid PTA	0	0	0	17	60	0	3	0	2
Total nr. of stents in peripheral PTA	98	0	0	11	246	3	8	39	ur
Peripheral angiography	584	74	0	229	1110	115	63	192	113
Other interventions									
TAVI	197	31	57	22	32	0	0	0	20
MitraClip	0	0	1	0	0	0	0	0	0
Aortic endoprosthesis	23	ur	24	1	13	0	0	0	4
Interventions in structural heart disease ⁴	22	19	0	0	6	0	0	0	1

CITY	Bucharest					Cluj Napoca		
Hospital	Sanador	Monza-Ares București	Colentina	Medlife	Institutul Inimii Cluj	SCJU Cluj	Monza-Ares Cluj	Sp. Recuperare Cluj
Nr. Of Cathlabs	2	3	1	1	3	1	2	1
Nr. Independent operators	3	2	1	8	10	6	ur	2
Nr. of training operators	0	0	1	0	1	8	0	0
Coronary Interventions								
Coronarography	1441	977	340	519	1540	1403	469	447
Total nr. of PCI ¹	197	401	92	127	2040	793	189	180
PCI without stents	6	4	1	8	40	54	1	8

Continued Table 1 - Reported data from all Interventional Cardiology Centers from Romania in 2023.

CITY	Bucharest					Cluj Napoca		
Hospital	Sanador	Monza-Ares București	Colentina	Medlife	Institutul Inimii Cluj	SCJU Cluj	Monza-Ares Cluj	Sp. Recuperare Cluj
PCI with stents	191	397	91	119	2000	739	159	172
STEMI with primary PCI	2	2	2	3	621	209	1	4
PCI left main	3	64	ur	4	102	51	13	0
CTO	5	43	ur	10	84	36	15	0
Stents per patient ²	1.34	1.89	1.64	1.30	1.15	1.85	1.64	ur
Total nr. of stents	256	749	150	155	2363	1465	311	ur
Cutting, Scoring	5	0	4	4	67	6	1	0
Rotablation	4	21	0	0	43	18	1	0
Shockwave	1	20	0	2	23	1	5	0
FFR/IFR	0	0	0	0	102	9	14	0
IVUS	0	0	0	0	105	0	1	0
OCT	0	0	0	0	20	13	0	0
Peripheral interventions								
Peripheral PTA ³	130	67	7	40	223	432	35	88
Renal PTA	0	0	2	1	12	18	8	1
Carotid PTA	3	24	0	5	59	2	26	0
Total nr. of stents in peripheral PTA	51	114	8	62	204	212	61	ur
Peripheral angiography	563	189	38	78	187	386	65	155
Other interventions								
TAVI	110	65	0	0	259	0	ur	0
MitraClip	0	4	0	0	0	0	2	0
Aortic endoprosthesis	23	2	0	0	24	0	ur	0
Interventions in structural heart disease ⁴	12	26	0	4	28	0	4	0

CITY	Iași			Târgu Mureș			
Hospital	IBCV Iași	Arcadia Iasi	Sp. Sf. Spiridon	IBCV Tg Mureș	CardioMed Tg. Mures	SCJU Tg. Mureș	Topmed
Nr. Of Cathlabs	2	1	2	2	2	2	1
Nr. Independent operators	6	3	4	6	6	6	5
Nr. of in training operators	9	0	4	2	2	2	0
Coronary Interventions							
Coronarography	3783	842	1359	1436	1040	979	1150
Total nr. of PCI ¹	2077	93	1078	1108	837	763	168
PCI without stents	215	4	38	130	0	15	4
PCI with stents	1862	89	962	978	837	763	164
STEMI with primary PCI	863	0	233	460	611	545	0

Continued Table 1 - Reported data from all Interventional Cardiology Centers from Romania in 2023.

CITY	Iași			Târgu Mureș			
Hospital	IBCV Iași	Arcadia Iasi	Sp. Sf. Spiridon	IBCV Tg Mureș	CardioMed Tg. Mures	SCJU Tg. Mureș	Topmed
PCI left main	ur	ur	94	149	18	45	10
CTO	ur	ur	32	32	14	21	5
Stents per patient ²	1.47	1.07	1.55	1.53	1.07	1.04	1.5
Total nr. of stents	3048	100	1554	1499	901	793	251
Cutting, Scoring	ur	0	4	0	0	10	0
Rotablation	ur	0	0	9	0	4	0
Shockwave	ur	0	0	0	0	0	0
FFR/IFR	21	0	6	42	35	14	0
IVUS	16	0	7	0	7	19	0
OCT	ur	0	0	5	34	26	0
Peripheral interventions							
Peripheral PTA ³	67	7	9	98	36	23	43
Renal PTA	8	0	1	7	1	1	0
Carotid PTA	31	6	1	26	0	0	5
Total nr. of stents in peripheral PTA	106	0	11	41	2	7	15
Peripheral angiography	708	120	67	148	79	60	50
Other interventions							
TAVI	53	0	0	175	0	0	0
MitraClip	0	0	0	0	0	0	0
Aortic endoprosthesis	8	0	0	21	0	0	0
Interventions in structural heart disease ⁴	0	0	0	20	0	0	0
CITY	Timișoara		Brașov		Oradea	Suceava	Baia Mare
Hospital	IBCV Timișoara	Clinicco Brasov	Sp. Jud. Brasov	Sf. Constantin Brasov	Sp. Jud. Oradea	Sp. Jud. Suceava	Sp. Jud. Baia Mare
Nr. Of Cathlabs	2	1	3	1	2	ur	3
Nr. Independent operators	8	2	4	3	3	ur	3
Nr. of in training operators	5	0	0	0	2	ur	0
Coronary Interventions							
Coronarography	3255	1306	1560	1096	1626	ur	391
Total nr. of PCI ¹	1924	367	1403	369	822	ur	544
PCI without stents	92	15	138	47	39	ur	27
PCI with stents	1832	352	1265	355	783	ur	517
STEMI with primary PCI	1193	11	493	3	439	ur	240

Continued Table 1 - Reported data from all Interventional Cardiology Centers from Romania in 2023.

CITY	Timișoara		Brașov		Oradea	Suceava	Baia Mare
Hospital	IBCV Timișoara	Clinicco Brasov	Sp. Jud. Brasov	Sf. Constantin Brasov	Sp. Jud. Oradea	Sp. Jud. Suceava	Sp. Jud. Baia Mare
PCI left main	205	22	30	30	57	ur	19
CTO	67	11	4	ur	77	ur	5
Stents per patient ²	2.00	1.56	1.16	1.52	1.91	ur	1.55
Total nr. of stents	3862	560	1477	541	1496	ur	806
Cutting, Scoring	15	8	15	1	12	ur	18
Rotablation	0	1	0	2	22	ur	0
Shockwave	0	8	0	17	3	ur	2
FFR/IFR	10	19	25	0	9	ur	4
IVUS	0	4	0	1	37	ur	0
OCT	1	0	3	0	0	ur	0
Peripheral interventions							
Peripheral PTA ³	49	15	0	29	54	ur	42
Renal PTA	2	2	0	2	2	ur	1
Carotid PTA	61	0	12	1	22	ur	0
Total nr. of stents in peripheral PTA	91	18	0	30	4	ur	25
Peripheral angiography	463	44	0	41	157	ur	122
Other interventions							
TAVI	32	0	0	41	20	ur	0
MitraClip	0	0	0	0	0	ur	0
Aortic endoprosthesis	13	0	0	5	12	ur	11
Interventions in structural heart disease ⁴	20	0	0	9	0	ur	0
CITY	Sibiu		Constanta		Ploiesti	Pitesti	
Hospital	Polisano Sibiu	Sp. Jud. Sibiu	Monza - Ares Constanta	HEKA	Sp. Jud. Ploiesti	Sp. Jud. Pitesti	
Nr. Of Cathlabs	1	1	1	1	1	1	1
Nr. Independent operators	1	2	2	2	3	3	3
Nr. of in training operators	0	2	0	0	0	0	0
Coronary Interventions							
Coronarography	597	1150	586	131	636	980	
Total nr. of PCI ¹	171	441	675	76	425	566	
PCI without stents	0	35	29	2	45	50	
PCI with stents	171	373	646	74	380	516	
STEMI with primary PCI	0	12	253	0	185	264	
PCI left main	10	21	26	6	5	27	

Continued Table 1 - Reported data from all Interventional Cardiology Centers from Romania in 2023.

CITY	Sibiu		Constanta		Ploiesti	Pitesti
Hospital	Polisano Sibiu	Sp. Jud. Sibiu	Monza - Ares Constanta	HEKA	Sp. Jud. Ploiesti	Sp. Jud. Pitesti
CTO	18	55	14	5	15	18
Stents per patient ²	2	1.04	1.39	1.78	1.34	1.39
Total nr. of stents	344	459	939	136	512	799
Cutting, Scoring	0	2	0	0	6	31
Rotablation	10	0	7	1	0	6
Shockwave	0	4	6	0	0	4
FFR/IFR	0	0	0	0	0	6
IVUS	0	0	0	0	0	8
OCT	0	1	0	0	0	0
Peripheral interventions						
Peripheral PTA ³	12	1	22	12	0	52
Renal PTA	0	0	1	2	0	0
Carotid PTA	0	0	0	1	0	18
Total nr. of stents in peripheral PTA	15	1	19	24	0	45
Peripheral angiography	38	1	25	18	59	140
Other interventions						
TAVI	62	0	0	0	0	0
MitraClip	0	0	0	0	0	0
Aortic endoprosthesis	5	0	0	0	0	0
Interventions in structural heart disease ⁴	2	0	0	0	0	0
CITY	Craiova		Tulcea		Galati	Buzau
Hospital	Sp. Jud. Craiova		Monza - Ares Tulcea		Sp. Jud. Galati	Sp. Jud. Buzau
Nr. Of Cathlabs	1		1		1	ur
Nr. Independent operators	4		1		1	ur
Nr. of in-training operators	1		0		0	ur
Coronary Interventions						
Coronarography	2387		270		255	ur
Total nr. of PCI ¹	1032		157		227	ur
PCI without stents	96		7		31	ur
PCI with stents	936		150		196	ur
STEMI with primary PCI	782		40		75	ur
PCI left main	98		9		15	ur
CTO	10		0		25	ur

Continued Table 1 - Reported data from all Interventional Cardiology Centers from Romania in 2023.

CITY	Craiova	Tulcea	Galati	Buzau
Hospital	Sp. Jud. Craiova	Monza - Ares Tulcea	Sp. Jud. Galati	Sp. Jud. Buzau
Stents per patient ²	1.24	1.65	1.45	ur
Total nr. of stents	1280	248	330	ur
Cutting, Scoring	20	0	0	ur
Rotablation	5	0	0	ur
Shockwave	10	0	0	ur
FFR/IFR	0	0	0	ur
IVUS	0	0	0	ur
OCT	0	0	0	ur
Peripheral interventions				
Peripheral PTA ³	2	0	0	ur
Renal PTA	1	0	0	ur
Carotid PTA	0	0	0	ur
Total nr. of stents in peripheral PTA	3	0	0	ur
Peripheral angiography	5	0	0	ur
Other interventions				
TAVI	0	0	0	ur
MitraClip	0	0	0	ur
Aortic endoprosthesis	0	0	0	ur
Interventions in structural heart disease ⁴	0	0	0	ur

Table 2 - Reported data from all Interventional Cardiology Centers from Romania in 2024.

CITY	Bucharest								
Hospital	CC. Iliescu	SUUB	SUB	Agrippa Ionescu	Militar	Bagdasar	Elias	Sf. Ioan	Ponderas
Nr. Of Cath labs	1	3	2	2	3	2	2	1	1
Nr. Independent operators	7	6	7	3	8	3	4	2	1
Nr. in training operators	6	8	0	0	6	1	0	0	0
Coronary Interventions									
Coronarography	2780	2505	1640	880	2937	1248	1530	372	346
Total nr. of PCI ¹	1321	1226	660	158	1028	669	764	125	66
PCI without stents	93	62	10	22	93	8	50	11	2
PCI with stents	1228	1164	650	136	935	661	714	114	64
STEMI with primary PCI	586	435	405	15	355	441	483	11	10
PCI left main	ur	52	74	7	63	66	67	7	1
CTO	ur	30	15	11	12	34	32	ur	2
Stents per patient ²	1.4	1.294	1.90	1.15	1.70	1.44	1.33	1.30	1.40
Total nr. of stents	1728	1586	1235	183	1587	955	1017	163	90

Continued Table 2 - Reported data from all Interventional Cardiology Centers from Romania in 2024.

CITY	Bucharest								
Hospital	CC. Iliescu	SUUB	SUB	Agripa Ionescu	Militar	Bagdasar	Elias	Sf. Ioan	Ponderas
Cutting, Scoring	32	4	28	7	20	27	5	0	2
Rotablation	15	0	11	2	9	0	14	0	0
Shockwave	5	2	11	5	9	0	7	0	2
FFR/IFR	15	3	24	18	5	8	5	0	0
IVUS	20	2	22	10	1	16	10	0	0
OCT	18	4	18	2	4	0	0	0	0
Peripheral interventions									
Peripheral PTA ³	291	0	0	27	291	0	28	56	34
Renal PTA	ur	0	0	0	7	1	0	0	0
Carotid PTA	4	0	2	17	62	0	4	0	0
Total nr. of stents in peripheral PTA	134	0	0	11	223	1	21	35	4
Peripheral angiography	586	80	0	229	1167	107	94	279	122
Other interventions									
TAVI	214	28	97	22	57	0	0	0	33
MitraClip	10	4	3	0	0	0	0	0	0
Aortic endoprosthesis	24	8	28	1	14	0	0	0	9
Interventions in structural heart disease ⁴	57	13	0	2	6	0	0	0	5

CITY	Bucharest					Cluj Napoca		
Hospital	Sanador	Monza-Ares București	Colentina	Medlife	Institutul Inimii Cluj	SCJU Cluj	Monza-Ares Cluj	Sp. Recuperare Cluj
Nr. Of Cathlabs	2	3	1	1	3	1	2	1
Nr. Independent operators	3	8	2	6	10	6	8	2
Nr. of training operators	0	0	0	0	1	9	1	0
Coronary Interventions								
Coronarography	1187	1033	417	423	3180	1252	339	295
Total nr. of PCI ¹	156	368	108	88	1577	748	173	156
PCI without stents	3	6	4	10	60	43	12	2
PCI with stents	153	362	104	78	1517	705	161	154
STEMI with primary PCI	8	3	3	1	683	210	0	2
PCI left main	3	41	ur	3	138	52	16	0
CTO	5	60	ur	5	125	24	6	0
Stents per patient ²	1.27	1.82	1.67	1.4	1.43	1.93	1.44	ur
Total nr. of stents	199	668	174	110	2253	1447	232	ur
Cutting, Scoring	5	ur	7	5	86	8	2	0
Rotablation	1	24	0	0	22	17	4	0
Shockwave	1	27	0	2	29	4	3	0
FFR/IFR	0	0	0	0	9	6	10	0
IVUS	0	0	0	0	45	0	2	0
OCT	0	0	0	0	4	20	0	0
Peripheral interventions								
Peripheral PTA ³	131	109	13	30	180	335	49	204
Renal PTA	0	1	1	3	18	21	4	0

Table 2 - Reported data from all Interventional Cardiology Centers from Romania in 2024.
Continued

CITY	Bucharest					Cluj Napoca		
Hospital	Sanador	Monza-Ares București	Colentina	Medlife	Institutul Inimii Cluj	SCJU Cluj	Monza-Ares Cluj	Sp. Recuperare Cluj
Carotid PTA	8	19	0	4	45	2	26	0
Total nr. of stents in peripheral PTA	37	0	19	41	190	153	61	ur
Peripheral angiography	556	208	43	60	54	431	56	287
Other interventions								
TAVI	94	130	0	0	238	0	0	0
MitraClip	16	2	0	0	32	0	2	0
Aortic endoprosthesis	28	10	0	0	41	0	5	0
Interventions in structural heart disease ⁴	25	35	0	5	38	0	5	0

CITY	Iași			Târgu Mureș			
Hospital	IBCV Iași	Arcadia Iasi	Sp. Sf. Spiridon	IBCV Tg Mureș	CardioMed Tg. Mures	SCJU Tg. Mureș	Topmed
Nr. Of Cathlabs	2	1	2	2	1	2	1
Nr. Independent operators	6	3	6	6	5	6	5
Nr. of in training operators	ur	0	3	2	0	2	0
Coronary Interventions							
Coronarography	4732	833	1531	1462	810	979	1256
Total nr. of PCI ¹	2111	81	1133	1148	265	763	150
PCI without stents	152	0	60	132	0	15	5
PCI with stents	1959	81	1073	1016	265	748	145
STEMI with primary PCI	876	0	301	491	0	545	0
PCI left main	ur	ur	113	159	33	45	7
CTO	ur	ur	40	36	14	21	0
Stents per patient ²	1.70	1.19	2.07	1.54	1.04	1.04	1.5
Total nr. of stents	3586	97	1776	1572	301	793	206
Cutting, Scoring	ur	0	5	0	0	10	0
Rotablation	ur	0	5	10	0	4	0
Shockwave	ur	0	0	5	0	0	0
FFR/IFR	5	0	4	20	0	14	0
IVUS	3	0	8	0	0	19	0
OCT	ur	0	0	13	0	26	0
Peripheral interventions							
Peripheral PTA ³	92	4	0	119	77	23	56
Renal PTA	26	0	0	6	1	1	0
Carotid PTA	92	1	0	29	5	0	5
Total nr. of stents in peripheral PTA	210	ur	0	39	14	7	19
Peripheral angiography	1104	101	27	152	88	60	95
Other interventions							
TAVI	107	0	0	181	0	0	0
MitraClip	ur	0	0	4	0	0	0
Aortic endoprosthesis	ur	0	0	20	0	0	0
Interventions in structural heart disease ⁴	ur	2	0	38	0	0	0

Continued Table 2 - Reported data from all Interventional Cardiology Centers from Romania in 2024.

CITY	Timișoara		Brașov		Oradea	Suceava	Baia Mare
Hospital	IBCV Timișoara	Clinicco Brasov	Sp. Jud. Brasov	Sf. Constantin Brasov	Sp. Jud. Oradea	Sp. Jud. Suceava	Sp. Jud. Baia Mare
Nr. Of Cathlabs	3	1	3	1	2	1	3
Nr. Independent operators	8	3	4	3	4	2	2
Nr. of in training operators	4	0	0	1	2	0	1
Coronary Interventions							
Coronarography	4157	1169	1519	1264	1966	547	789
Total nr. of PCI ¹	1979	353	1780	402	1052	771	495
PCI without stents	171	9	286	31	45	43	35
PCI with stents	1808	344	1494	401	1007	728	460
STEMI with primary PCI	1124	11	551	1	667	351	220
PCI left main	219	8	30	32	68	31	38
CTO	117	14	4	ur	87	30	12
Stents per patient ²	1.93	1.18	1.00	1.34	2.4	1.55	1.37
Total nr. of stents	3505	407	1494	538	2523	1062	676
Cutting, Scoring	20	8	20	2	23	0	20
Rotablation	0	4	0	8	44	0	0
Shockwave	0	14	0	0	11	0	5
FFR/IFR	17	52	24	4	9	0	0
IVUS	0	7	0	19	32	0	0
OCT	3	0	4	1	0	0	0
Peripheral interventions							
Peripheral PTA ³	51	14	ur	12	57	0	36
Renal PTA	11	2	ur	0	3	0	2
Carotid PTA	89	0	15	3	21	0	18
Total nr. of stents in peripheral PTA	47	19	ur	4	4	0	22
Peripheral angiography	530	33	ur	3	167	0	112
Other interventions							
TAVI	66	0	19	30	23	0	51
MitraClip	4	0	0	7	0	0	0
Aortic endoprosthesis	19	0	3	9	0	0	19
Interventions in structural heart disease ⁴	41	5	0	5	0	0	0

CITY	Sibiu		Constanta		Ploiesti	Pitesti
Hospital	Polisano Sibiu	Sp. Jud. Sibiu	Monza - Ares Constanta	HEKA	Sp. Jud. Ploiesti	Sp. Jud. Pitesti
Nr. Of Cathlabs	2	1	1	1	1	1
Nr. Independent operators	1	1	2	2	3	2
Nr. of in training operators	1	2	1	1	0	0
Coronary Interventions						
Coronarography	749	765	480	550	775	1210
Total nr. of PCI ¹	202	419	511	209	516	690
PCI without stents	0	103	18	6	62	75
PCI with stents	202	316	493	203	454	615
STEMI with primary PCI	0	22	235	0	172	284

Continued Table 2 - Reported data from all Interventional Cardiology Centers from Romania in 2024.

CITY	Sibiu		Constanta		Ploiesti		Pitesti	
Hospital	Polisano Sibiu	Sp. Jud. Sibiu	Monza - Ares Constanta	HEKA	Sp. Jud. Ploiesti	Sp. Jud. Pitesti		
PCI left main	14	20	32	25	10	31		
CTO	35	17	7	9	25	23		
Stents per patient ²	1.70	1.71	1.3	1.7	1.30	1.41		
Total nr. of stents	339	543	665	358	595	868		
Cutting, Scoring	2	22	0	0	15	48		
Rotablation	15	3	0	5	0	8		
Shockwave	7	8	0	2	0	13		
FFR/IFR	0	0	0	0	0	3		
IVUS	0	0	0	0	0	23		
OCT	0	0	0	0	0	0		
Peripheral interventions								
Peripheral PTA ³	18	0	0	69	1	56		
Renal PTA	0	0	0	2	0	0		
Carotid PTA	0	0	0	5	0	13		
Total nr. of stents in peripheral PTA	20	0	0	72	0	39		
Peripheral angiography	30	2	0	50	69	123		
Other interventions								
TAVI	75	0	0	0	0	0		
MitraClip	0	0	0	0	0	0		
Aortic endoprosthesis	2	0	0	0	0	0		
Interventions in structural heart disease ⁴	0	0	0	0	0	0		
CITY	Craiova	Tulcea	Galați		Bucharest		Tg. Jiu	Onesti
Hospital	Sp. Jud. Craiova	Monza - Ares Tulcea	Sp. Jud. Galați	NORD	Memorial Hospital	Angio medica	Sp. Jud.	Sp. Mun.
Nr. Of Cathlabs	1	1	1	1	1	1	1	1
Nr. Independent operators	5	1	1	1	3	3	3	3
Nr. of in training operators	1	0	0	0	0	0	0	0
Coronary Interventions								
Coronarography	2364	282	257	474	58	741	9	70
Total nr. of PCI ¹	1078	233	196	45	9	65	8	42
PCI without stents	122	16	15	5	3	0	0	0
PCI with stents	956	184	181	34	6	65	8	42
STEMI with primary PCI	715	33	66	1	0	65	0	0
PCI left main	89	ur	10	7	0	ur	0	0
CTO	12	ur	30	4	0	ur	0	0
Stents per patient ²	1.19	1.6	1.86	1.61	2.3	ur	1.3	1.5
Total nr. of stents	1289	380	337	55	14	ur	11	63
Cutting, Scoring	15	0	0	6	0	ur	0	0
Rotablation	3	0	0	5	0	ur	0	0
Shockwave	10	0	0	2	0	ur	0	0
FFR/IFR	0	0	0	6	0	ur	0	0
IVUS	0	0	0	15	0	ur	0	0
OCT	0	0	0	9	0	ur	0	0

Continued Table 2 - Reported data from all Interventional Cardiology Centers from Romania in 2024.

CITY Hospital	Craiova Sp. Jud. Craiova	Tulcea Monza - Ares Tulcea	Galați Sp. Jud. Galați	NORD	Bucharest Memorial Hospital	Angio medica	Tg. Jiu Sp. Jud.	Onesti Sp. Mun.
Peripheral interventions								
Peripheral PTA ³	1	0	0	ur	14	ur	0	0
Renal PTA	3	0	0	0	0	ur	0	0
Carotid PTA	0	0	0	2	0	ur	0	0
Total nr. of stents in peripheral PTA	4	0	0	5	0	ur	0	0
Peripheral angiography	ur	20	0	74	15	ur	0	0
Other interventions								
TAVI	0	0	0	1	0	ur	0	0
MitraClip	0	0	0	0	0	ur	0	0
Aortic endoprosthesis	0	0	0	0	0	ur	0	0
Interventions in structural heart disease ⁴	0	0	0	1	0	ur	0	0

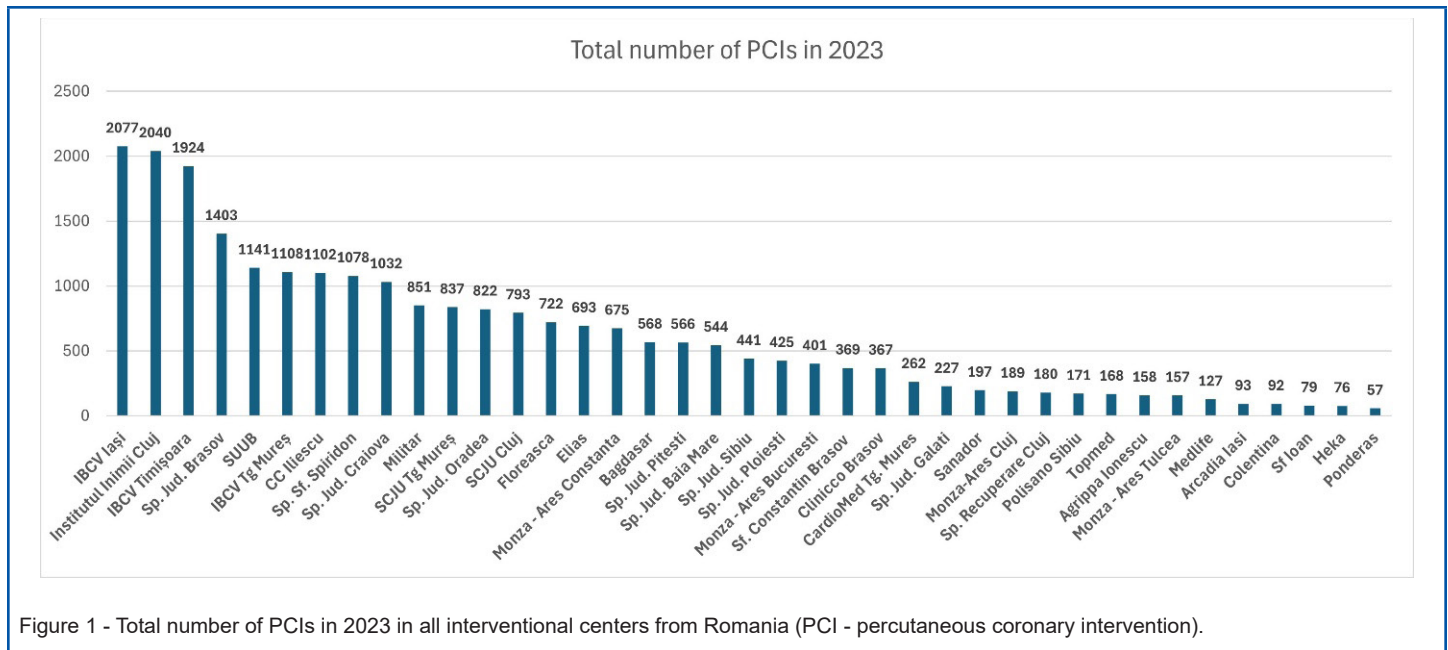
1. Total number of elective and urgent PCIs

2. It will represent the ratio between the total number of implanted stents and the total number of patients undergoing PCI

3. Number of peripheral angioplasty (lower and upper limbs artery, not including carotid arteries)

4. Interventions in cardiac structural diseases: percutaneous closures of DSA, DSV, PFO, arterial duct, balloon valvulotomies, left atrial appendage closure.

(PCI - percutaneous coronary intervention, STEMI - ST segment elevation myocardial infarction, DES – drug eluting stent, BVS - bioresorbable vascular scaffold, FFR - fractional flow reserve, IFR - instantaneous wave-free ratio, IVUS – intravascular ultrasound, OCT - optical coherence tomography, PTA - percutaneous transluminal angioplasty, TAVI - transcatheter aortic valve implantation, UR – unreported or data not available)



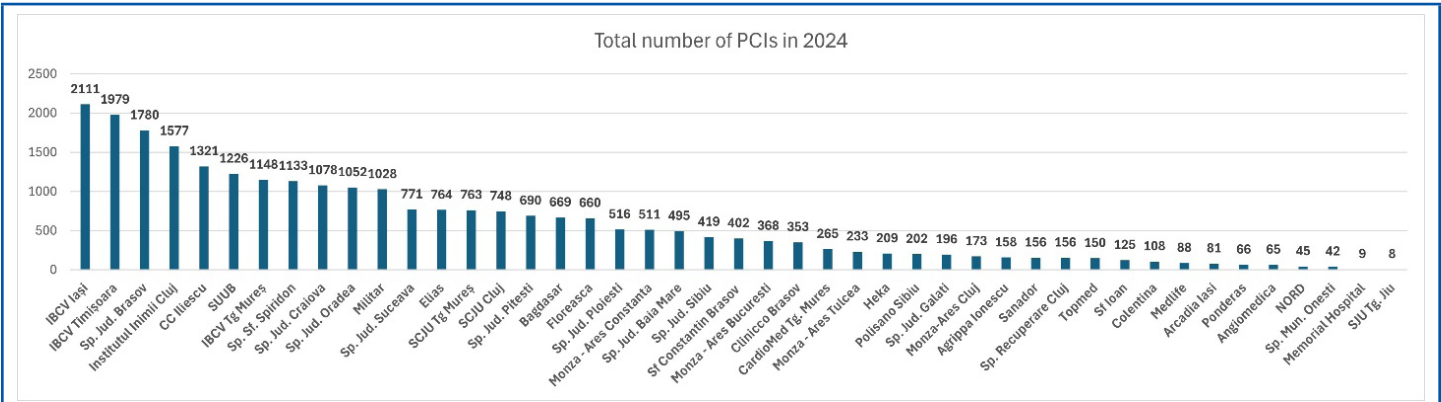


Figure 2 - Total number of PCIs in 2024 in all interventional centers from Romania (PCI - percutaneous coronary intervention).

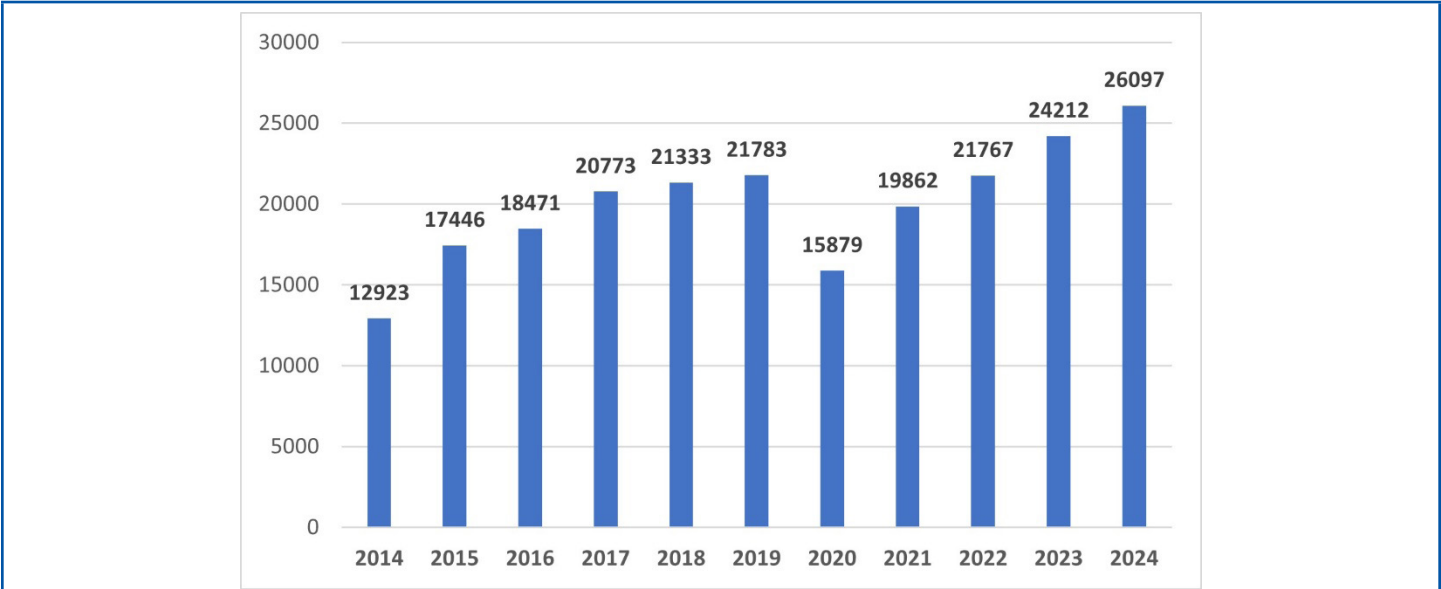


Figure 3 - Total number of percutaneous coronary interventions from 2014 to 2024 in Romania.

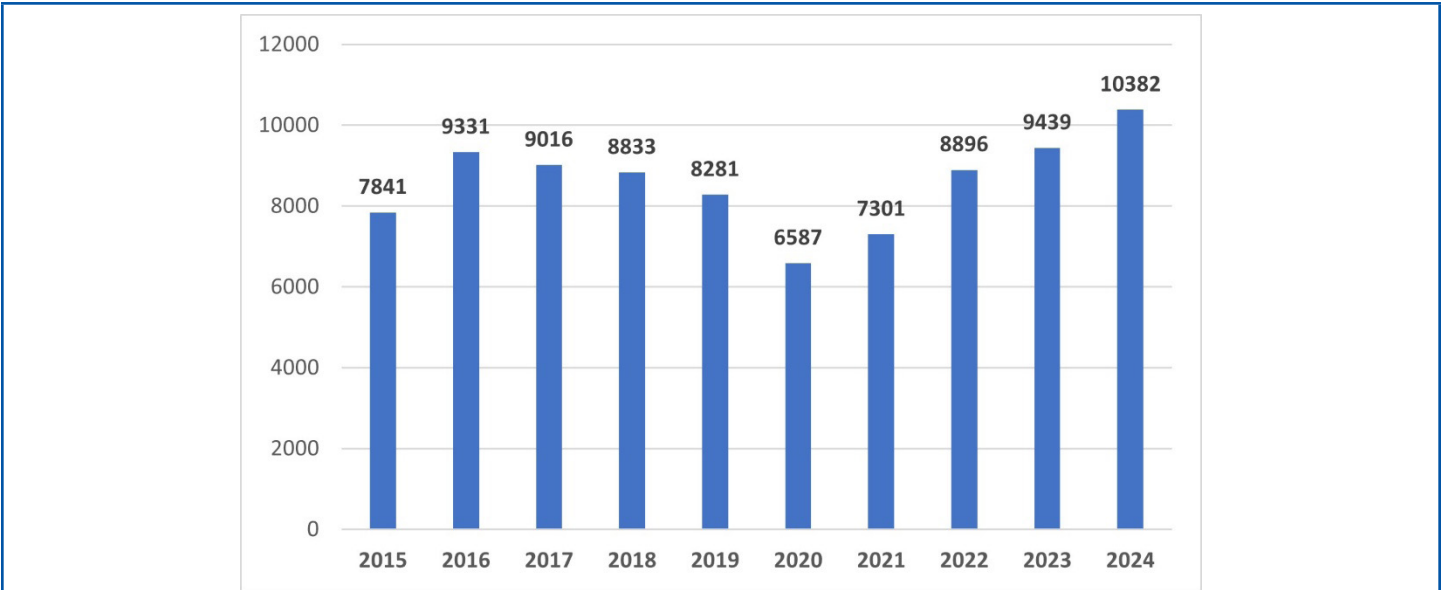


Figure 4 - Total number of primary PCIs in STEMI patients from 2015 to 2024 in interventional centers from Romania (PCI - percutaneous coronary intervention, STEMI - ST segment elevation myocardial infarction).

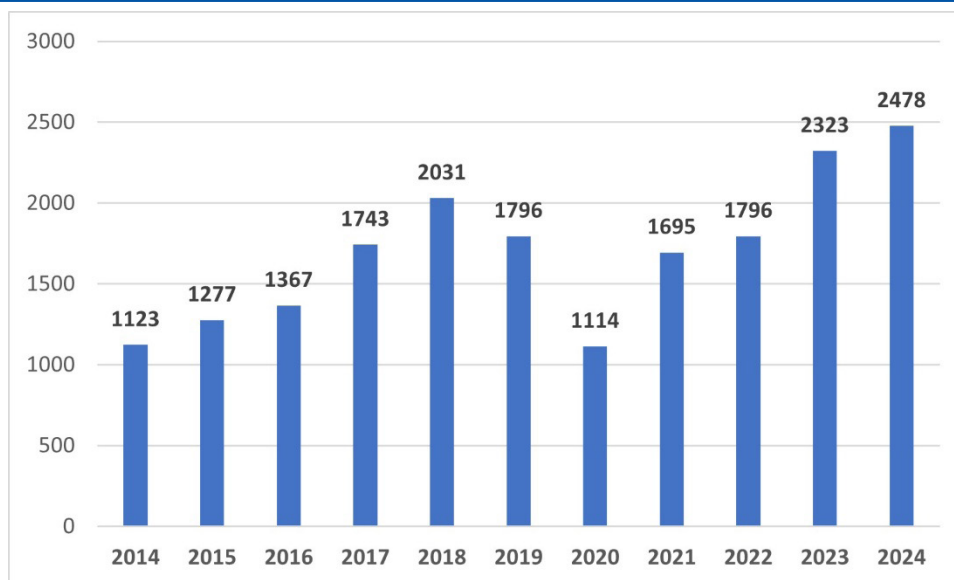


Figure 5 - Total number of peripheral angioplasties from 2014 to 2024 in Romania (only in interventional cardiology centers).

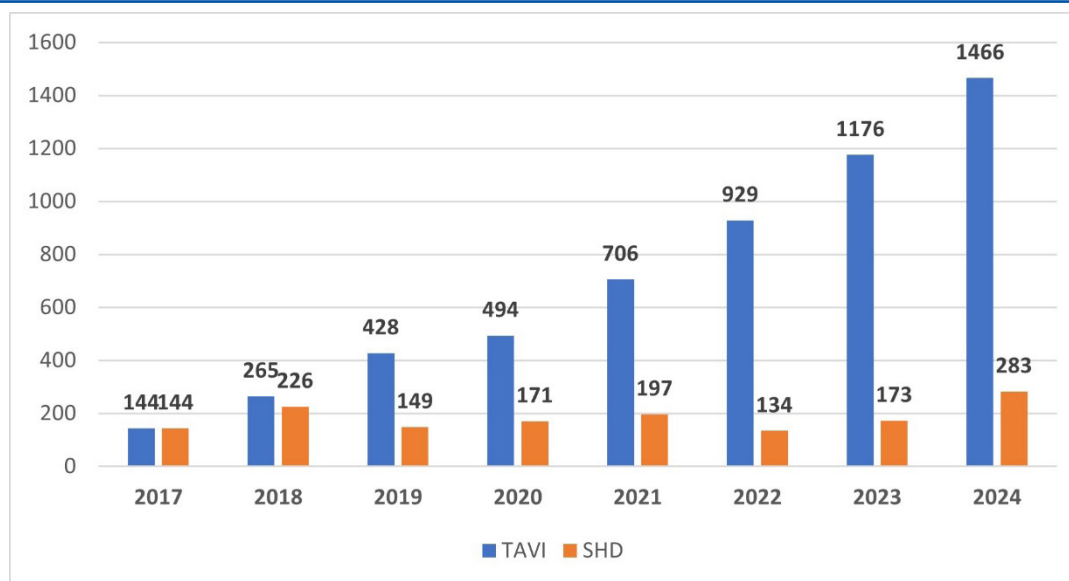


Figure 6 - Total number of TAVI and interventions in SHDs performed from 2017 to 2024 in Romania (TAVI - transcatheter aortic valve implantation, SHDs – structural heart diseases).

Conflicts of interest

The authors declare no conflicts of interest.

Informed Consent Statement

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