



Interventional Cardiology in Switzerland

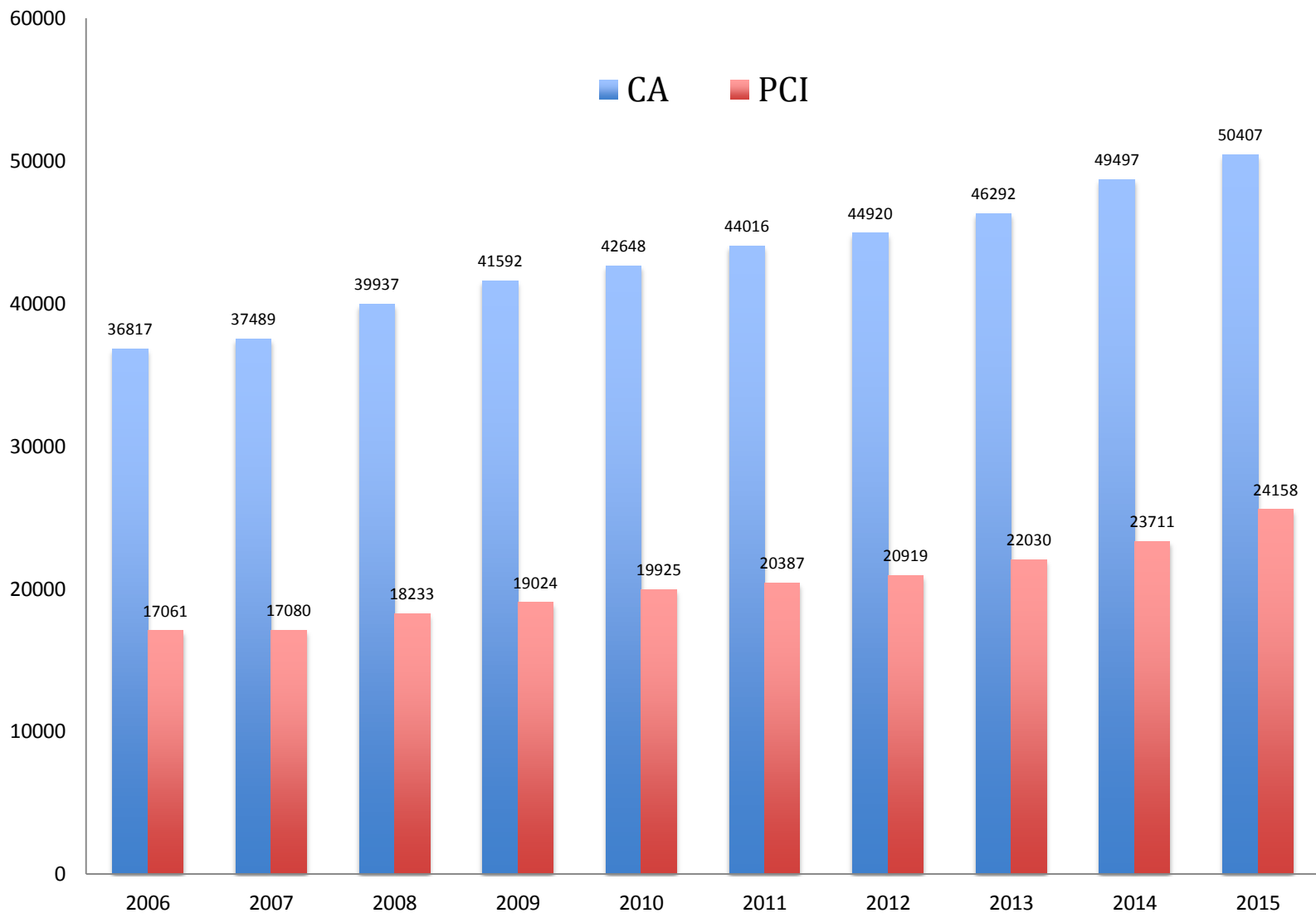
Annual Statistic Report 2015

Data collected and processed by

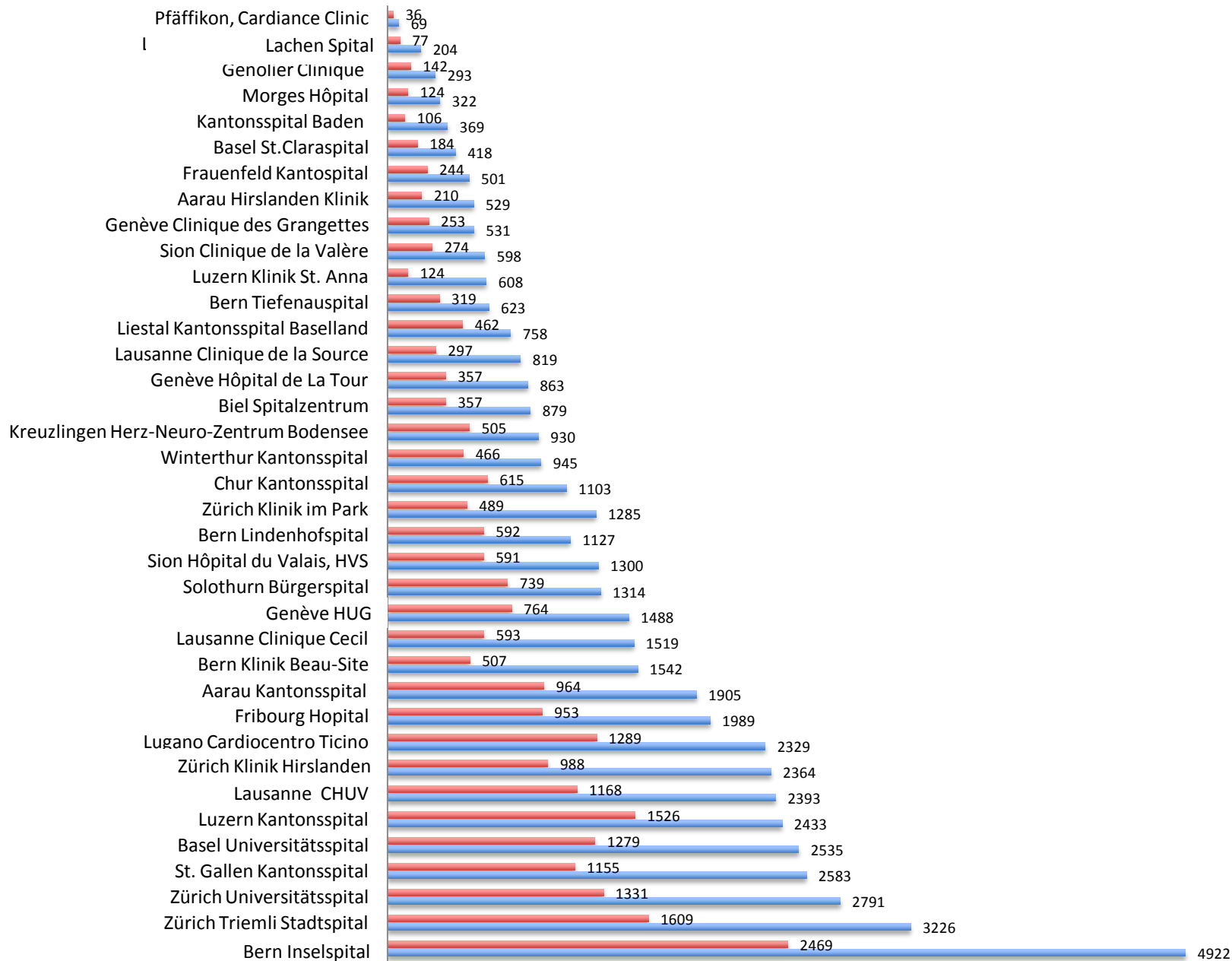
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On behalf of the Swiss Working Group of
Interventional Cardiology

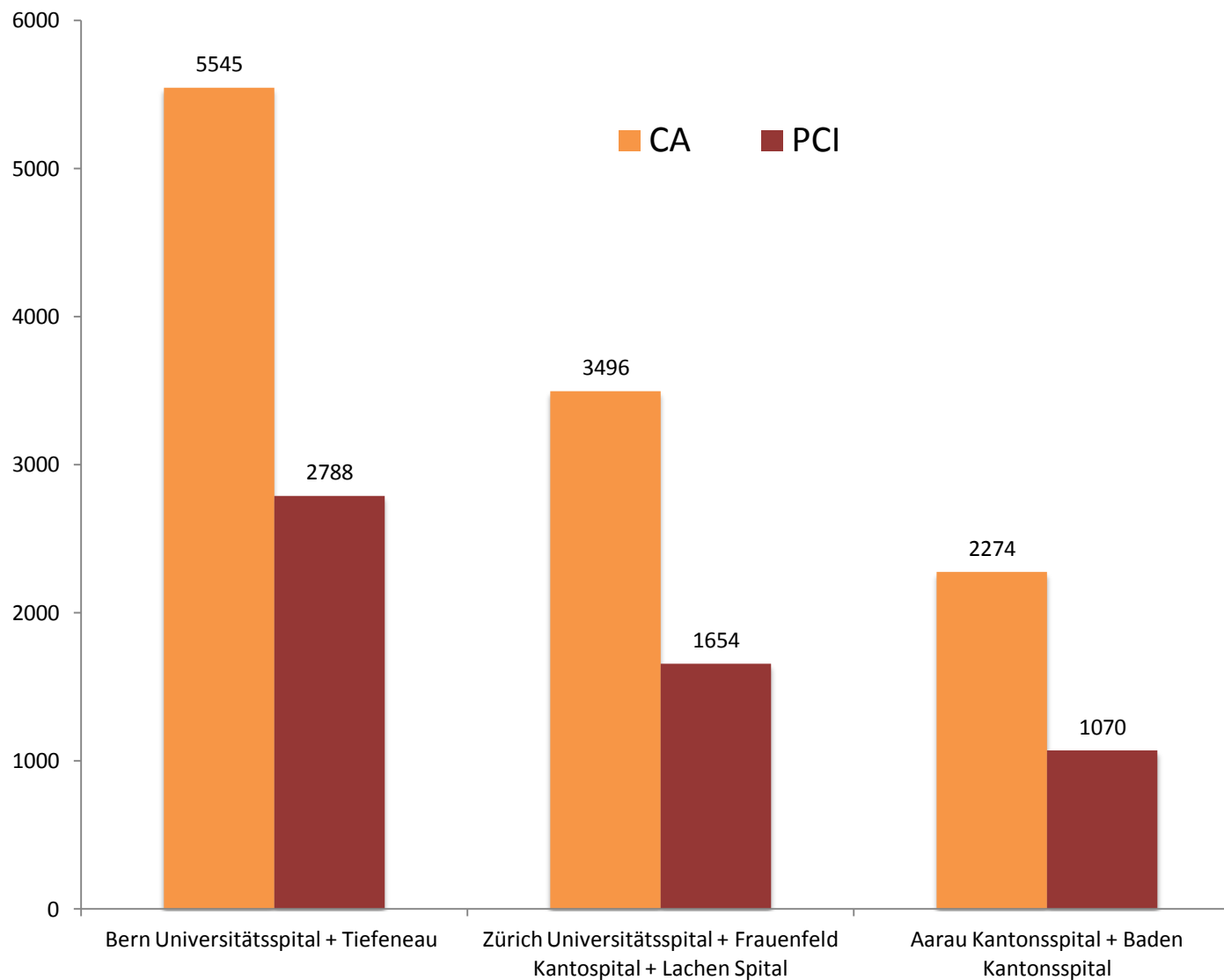
Coronary Angiography (CA) and Percutaneous Coronary Interventions (PCI) From 2006 to 2015 in Switzerland



Coronary Angiographies (CA) and Percutaneous Coronary Interventions (PCI) in all Centres During the Year 2015 in Switzerland

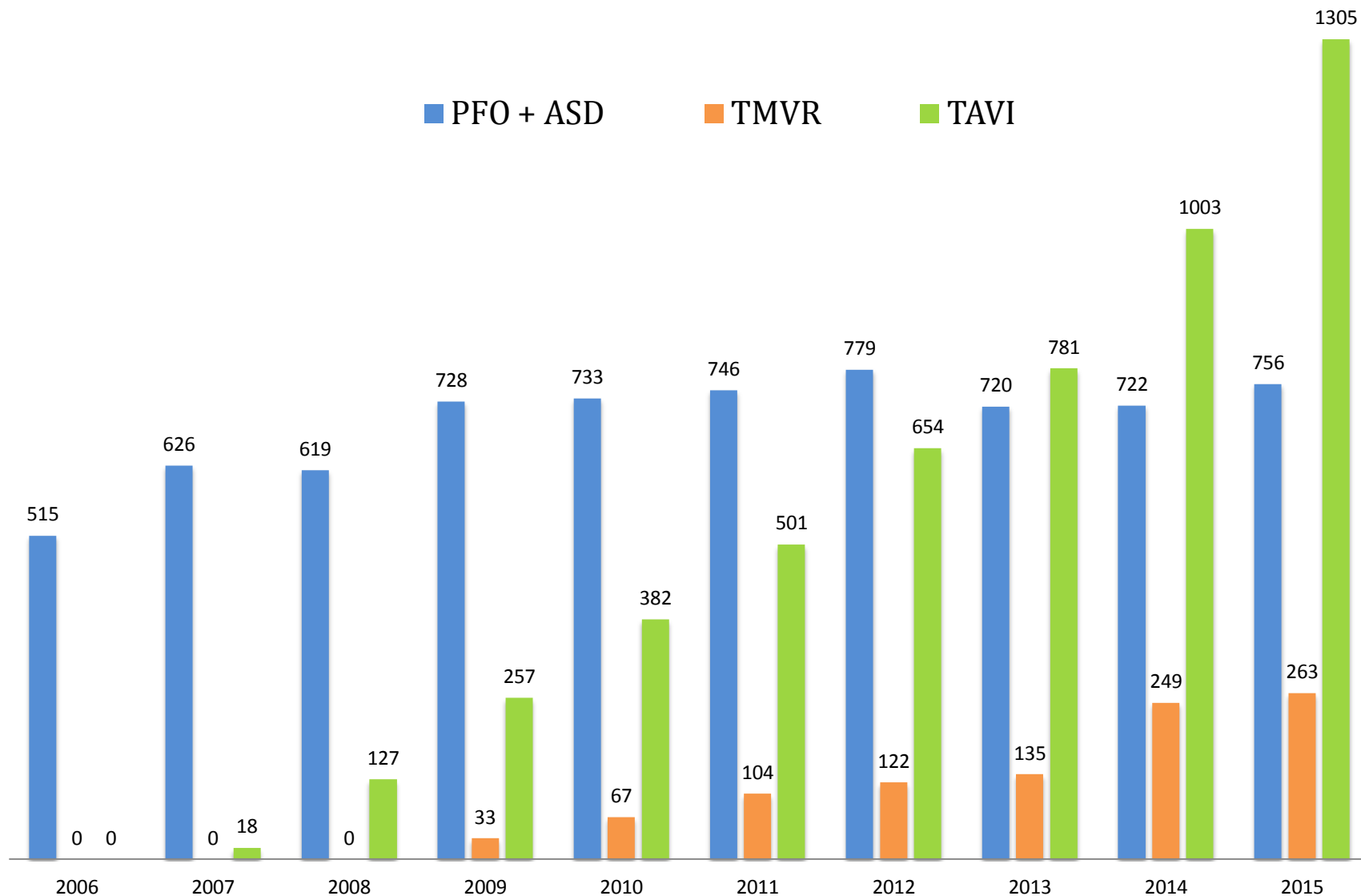


PCI-Networks in Switzerland in 2015

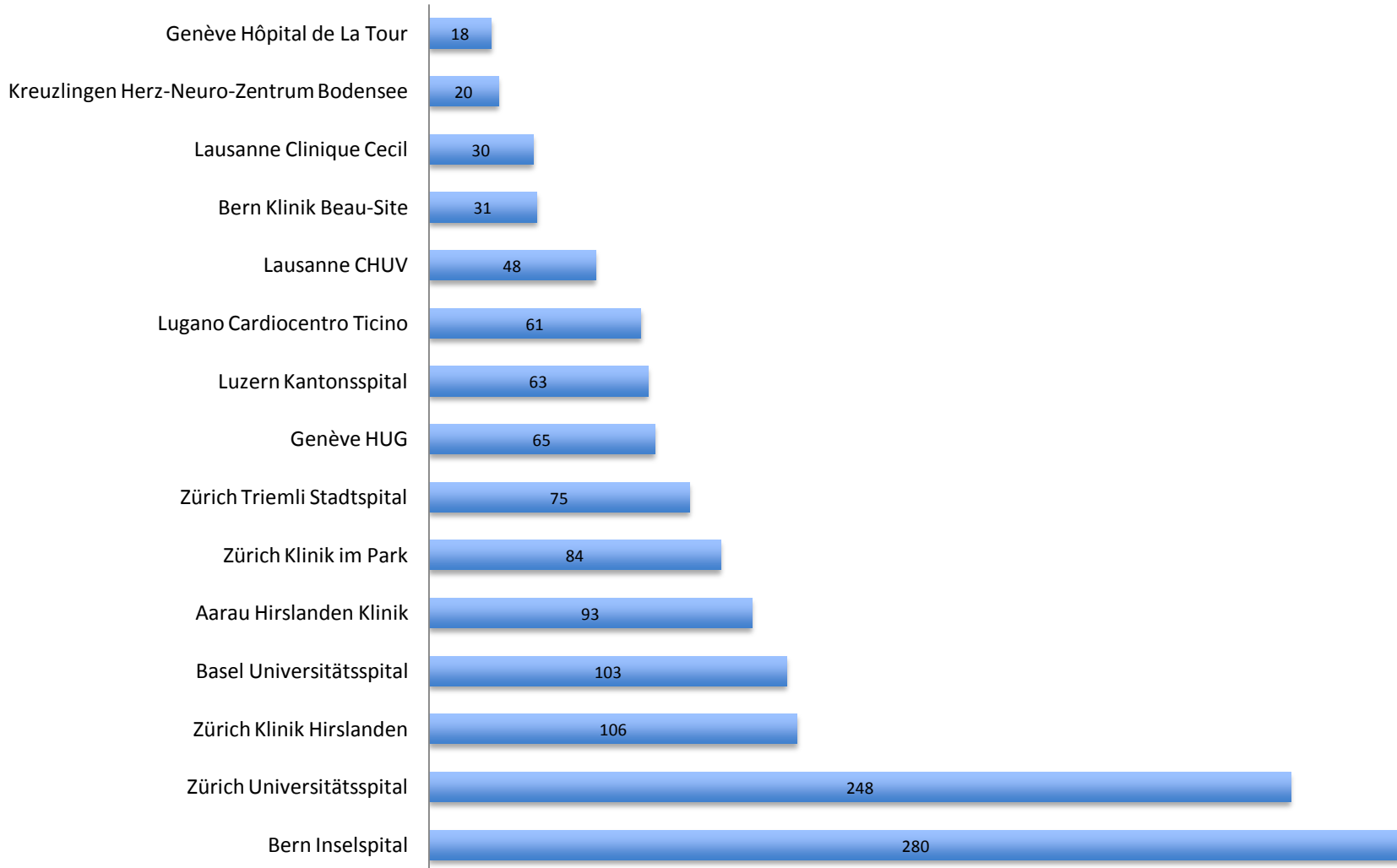


Interventions for Structural Heart Defects

Closure of PFO and ASD, Transcatheter Aortic Valve Implantation (TAVI) and Transcatheter Mitral Valve Repair (TMVR) From 2006 to 2015 in Switzerland

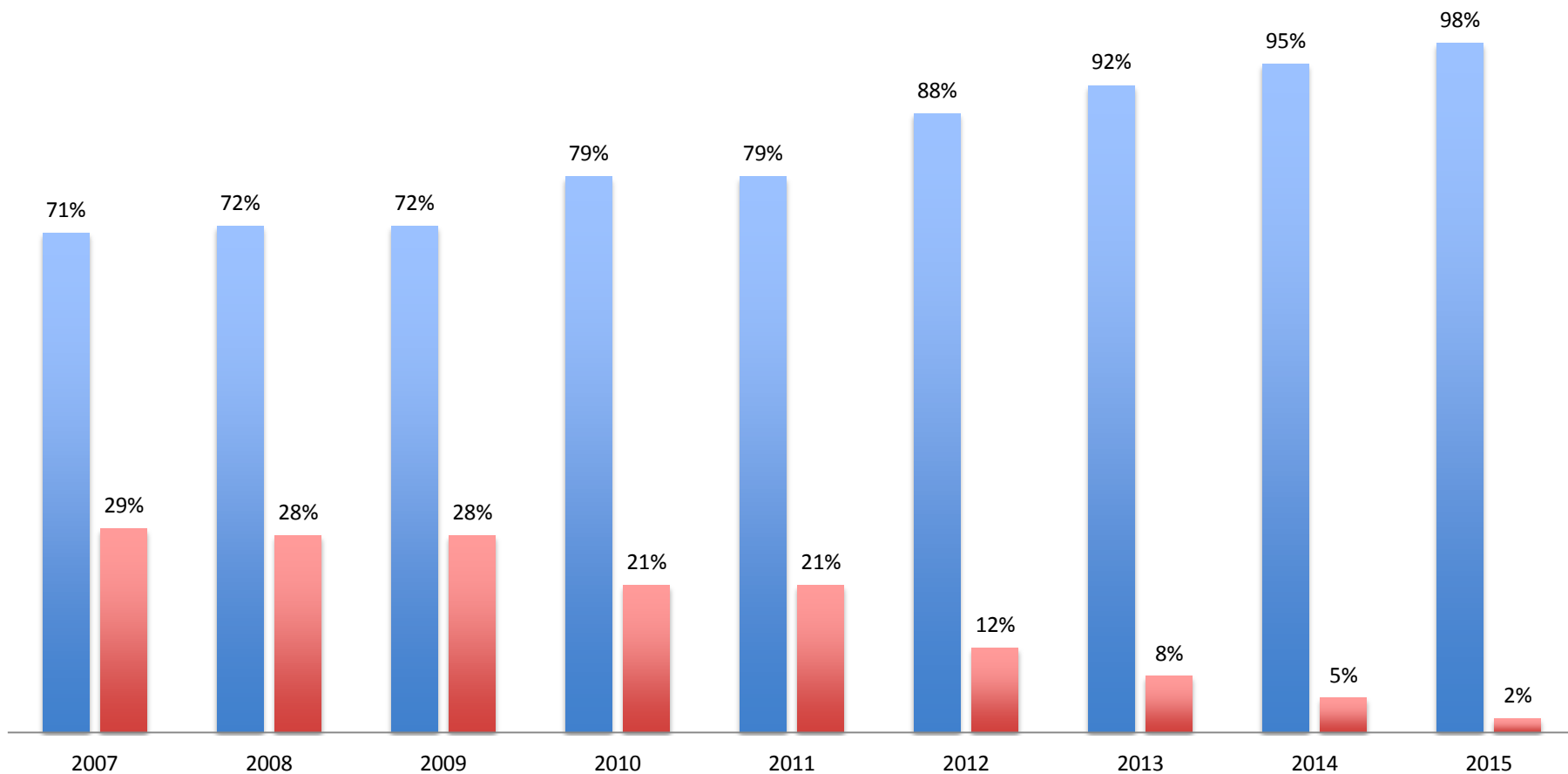


Totality of Transcatheter Aortic Valve Implantation (TAVI) During the Year 2015 in Switzerland



Percentage of Drug-Eluting Stents (DES) and Bare-Metal Stents (BMS) From 2007 to 2015 in Switzerland

■ DES ■ BMS



Trans-radial Access (TRA) and More in Switzerland in 2015



	Operators Diagnostic Only (number)	Operators Diagnostic and Interventional (number)	Centre with Cardiac Surgery (yes or no)	Total Number of Cases (CA + PCI)	Diagnostic Cases Only (CA)	PCI (Number of Cases)	Radial Access for CA + PCI	% Radial Access for CA + PCI	Radial Access for PCI	% Radial Access for PCI
Bern Inselspital	n.a	11	y	4922	2453	2469	1528	31.04	n.a	n.a
Bern Tiefenauspital	2	2	n	623	304	319	491	78.81	n.a	n.a
Zürich Triemli Stadtpital	0	6	y	3226	1617	1609	2163	67.05	1195	74.27
Zürich Universitätsspital	n.a	7	y	2791	1460	1331	949	34.00	n.a	n.a
Frauenfeld Kantospital	1	1	n	501	257	244	157	31.34	65	26.64
Lausanne CHUV	0	6	y	2393	1225	1168	1284	53.66	750	64.21
St. Gallen Kantonsspital	n.a	8	n	2583	1428	1155	1244	48.16	430	37.23
Basel Universitätsspital	2	8	y	2535	1246	1279	448	17.67	165	12.90
Basel St.Claraspital	0	3	n	418	234	184	40	9.57	10	5.43
Aarau Kantonsspital	0	5	n	1905	941	964	700	36.75	302	31.33
Baden Kantonsspital	0	n.a	n	369	263	106	0	n.a	n.a	n.a
Zürich Klinik Hirslanden	0	9	y	2364	1376	988	924	39.09	n.a	n.a
Luzern Kantonsspital	8	5	y	2433	907	1526	1835	75.42	1298	85.06
Fribourg Hopital	0	5	n	1989	1036	953	669	33.63	321	33.68
Lugano Cardiocentro Ticino	1	9	y	2329	1040	1289	719	30.87	632	49.03
Zürich Klinik im Park	n.a	8	y	1285	796	489	123	9.57	52	10.63
Bern Klinik Beau-Site	0	6	y	1542	1035	507	n.a	n.a	8	1.58
Genève HUG	1	4	y	1488	724	764	564	37.90	610	79.84
Lausanne Clinique Cecil	10	4	y	1519	926	593	677	44.57	376	63.41
Sion Hôpital du Valais, HVS	0	4	y	1300	694	591	534	41.08	455	76.99
Solothurn Bürgerspital	0	3	n	1314	575	739	182	13.85	97	13.13
Chur Kantonsspital	0	4	n	1103	488	615	731	66.27	378	61.46
Biel Spitalzentrum	0	7	n	879	517	357	245	27.87	112	31.37
Genève Hôpital de La Tour	3	10	y	863	506	357	352	40.79	241	67.51
Winterthur Kantonsspital	0	5	n	945	477	466	378	40.00	352	75.54
Lausanne Clinique de la Source	n.a	4	n	819	522	297	525	64.10	174	58.59
Sion Clinique de la Valère	3	3	n	598	324	274	594	99.33	270	98.54
Liestal Kantonsspital Baselland	n.a	n.a	n.a	758	n.a	462	671	88.52	399	86.36
Luzern Klinik St. Anna	n.a	n.a	n.a	608	81	124	17	2.80	3	2.42
Bern Lindenhofspital	4	4	n	1127	535	592	912	80.92	473	79.90
Aarau Hirslanden Klinik	0	8	y	529	327	210	175	33.08	77	36.67
Genève Clinique des Grangettes	4	5	n	531	278	253	404	76.08	190	75.10
Genolier Clinique	0	4	n	293	160	142	100	34.13	51	35.92
Morges Hôpital	0	4	y	322	210	124	177	54.97	68	54.84
Kreuzlingen Herz-Neuro-Zentrum	1	2	y	930	425	505	374	40.22	246	48.71
Lachen Spital	1	3	n	204	127	77	132	64.71	51	66.23
Pfäffikon, Cardiance Clinic	2	1	n	69	36	36	6	8.70	6	16.67
TOTAL	43	178	Yes = 17	50407	25550	24158	21024	44.47	9857	48.79

Percutaneous Coronary Intervention (PCI) in Switzerland in 2015



	PCI (Number of Cases)	PCI Following Diagnostic Study (ad hoc PCI)	Single Vessel PCI	Multivessel PCI (in one session)	PCI for NST- ACS	PCI for STEMI (Primary and Rescue)	PCI for Cardiogenic Shock/Cardiac Arrest	PCI for Chronic Total Occlusions (CTO)	Antegrade CTO (Attempted or Succeeded)	Retrograde CTO (Attempted or Succeeded)
Bern Inselspital	2469	2420	1876	593	584	510	88	42	n.a	n.a
Bern Tiefenauspital	319	200	229	118	22	5	0	35	n.a	n.a
Zürich Triemli Stadtpital	1609	n.a	1289	320	407	425	59	n.a	n.a	n.a
Zürich Universitätsspital	1331	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Frauenfeld Kantospital	244	230	209	35	30	3	1	15	15	0
Lausanne CHUV	1168	882	785	97	394	263	32	48	35	13
St. Gallen Kantonsspital	1155	1054	872	159	247	225	7	102	63	39
Basel Universitätsspital	1279	1215	816	463	355	320	108	50	48	2
Basel St. Claraspital	184	162	149	35	21	24	6	7	5	2
Aarau Kantonsspital	964	768	819	145	387	279	10	38	28	10
Baden Kantonsspital	106	80	98	8	6	0	0	2	2	0
Zürich Klinik Hirslanden	988	937	557	431	88	49	7	87	n.a	n.a
Luzern Kantonsspital	1526	1412	812	714	274	139	25	36	24	12
Fribourg Hopital	953	902	748	154	344	78	24	87	86	1
Lugano Cardiocentro Ticino	1289	1230	812	477	279	276	38	25	19	6
Zürich Klinik im Park	489	395	256	147	26	31	7	19	12	7
Bern Klinik Beau-Site	507	465	401	106	61	49	4	20	20	0
Genève HUG	764	643	501	209	194	220	31	40	n.a	n.a
Lausanne Clinique Cecil	593	464	520	83	30	3	0	10	n.a	n.a
Sion Hôpital du Valais, HVS	591	398	528	42	150	160	8	20	19	1
Solothurn Bürgerspital	739	709	0	0	141	93	0	0	0	0
Chur Kantonsspital	615	517	517	98	146	138	7	59	52	7
Biel Spitalzentrum	357	150	318	39	100	68	6	5	5	0
Genève Hôpital de La Tour	357	325	288	69	62	10	1	18	15	3
Winterthur Kantonsspital	466	466	407	36	108	137	1	22	n.a	n.a
Lausanne Clinique de la Source	297	281	213	71	36	0	0	24	24	0
Sion Clinique de la Valère	274	272	262	10	5	0	0	30	30	0
Liestal Kantonsspital Baselland	462	462	283	179	86	39	1	39	n.a	n.a
Luzern Klinik St. Anna	124	246	181	78	26	32	8	24	16	8
Bern Lindenhofspital	592	473	200	225	225	112	n.a	10	10	0
Aarau Hirslanden Klinik	210	166	181	22	38	16	2	9	9	0
Genève Clinique des Grangettes	253	248	198	55	32	3	0	17	17	0
Genolier Clinique	142	133	115	26	0	1	0	4	4	0
Morges Hôpital	124	123	113	13	33	n.a	n.a	3	3	0
Kreuzlingen Herz-Neuro-Zentrum	505	367	454	51	81	117	16	34	34	1
Lachen Spital	77	70	16	49	12	0	0	0	0	0
Pfäffikon, Cardiance Clinic	36	36	15	21	2	0	0	3	3	0
TOTAL	24158	18901	16038	5378	5032	3825	497	984	598	112

Coronary Stents, Devices and Diagnostic Tools in Switzerland in 2015



	PCI (number of cases)	Bare Metal Stents (BMS)	Drug-Eluting Stents (DES)	Self-Expandable Stents (DES or BMS)	Bioabsorbable Scaffolds (Absorb)	Bifurcation Dedicated Stents	Rotablator	Distal Protection Device (filters)	Fractional Flow Reserve (FFR)	Instant Wave Free Ratio (IFR)	Intravascular Ultrasound (IVUS)	OCT
Bern Inselspital	2469	10	2305	0	28	0	30	14	102	0	10	65
Bern Tiefenauspital	319	1	296	0	5	0	0	0	0	0	0	0
Zürich Triemli Stadtpital	1609	8	1493	9	11	0	2	11	95	0	0	26
Zürich Universitätsspital	1331	7	1277	0	32	3	16	3	67	0	33	46
Frauenfeld Kantosptal	244	1	241	1	0	0	0	0	30	0	7	n.a
Lausanne CHUV	1168	58	962	4	44	0	15	5	231	0	39	n.a
St. Gallen Kantonsspital	1155	15	1018	72	31	0	13	0	141	0	10	4
Basel Universitätsspital	1279	30	1150	43	0	0	12	5	48	0	6	3
Basel St. Claraspital	184	9	165	0	10	0	1	1	45	0	0	n.a
Aarau Kantonsspital	964	9	868	0	43	0	6	16	57	40	16	6
Kantonsspital Baden	106	5	101	0	0	0	0	2	18	0	0	0
Zürich Klinik Hirslanden	988	11	838	13	90	2	15	7	231	0	37	29
Luzern Kantonsspital	1526	0	1526	13	224	0	23	3	58	18	2	45
Fribourg Hopital	953	87	834	0	0	0	19	0	109	0	3	28
Lugano Cardiocentro Ticino	1289	1	979	54	78	0	2	12	234	40	49	47
Zürich Klinik im Park	489	1	416	n.a	6	0	4	4	113	0	1	0
Bern Klinik Beau-Site	507	1	506	0	0	0	6	0	17	0	0	0
Genève HUG	764	28	644	3	6	0	9	15	49	0	5	9
Lausanne Clinique Cecil	593	9	570	4	0	0	2	2	20	0	0	0
Sion Hôpital du Valais, HVS	591	20	571	0	10	0	0	20	50	0	0	3
Solothurn Bürgerspital	739	6	701	0	0	0	0	4	71	0	0	0
Chur Kantonsspital	615	4	534	0	0	0	5	0	76	0	26	0
Biel Spitalzentrum	357	7	343	0	7	0	9	0	37	0	0	0
Genève Hôpital de La Tour	357	16	316	1	2	0	15	5	81	0	9	0
Winterthur Kantonsspital	466	9	411	32	10	0	14	0	91	184	34	0
Lausanne Clinique de la Source	297	28	259	0	10	0	0	0	25	0	0	0
Sion Clinique de la Valère	274	14	260	0	10	0	0	0	20	0	0	0
Liestal Kantonsspital Baselland	462	0	432	0	4	n.a	1	0	30	0	0	7
Luzern Klinik St. Anna	124	10	254	0	8	n.a	n.a	0	12	0	0	0
Bern Lindenhofspital	592	23	450	0	0	0	0	0	0	0	0	0
Aarau Hirslanden Klinik	210	11	179	0	8	0	0	0	2	0	0	0
Genève Clinique des Grangettes	253	5	236	0	6	0	4	1	35	0	0	0
Genolier Clinique	142	2	124	0	3	0	2	1	70	0	0	0
Morges Hôpital	124	10	98	n.a	2	0	2	n.a	17	0	0	8
Kreuzlingen Herz-Neuro-Zentrum	505	n.a	444	0	30	0	0	0	82	0	1	0
Lachen Spital	77	0	77	0	0	0	0	0	4	0	0	0
Pfäffikon, Cardiance Clinic	36	0	35	0	0	0	0	0	1	1	0	0
TOTAL	24158	456	21913	249	718	5	227	131	2369	283	288	326



Percutaneous Valve Interventions in Switzerland in 2015

	Mitral valvuloplasty	Mitraclip	Additional Transcatheter Mitral Valve Interventions	Aortic valvuloplasty	TAVI (n°total)	Transfemoral TAVI	Transapical TAVI	Transsubclavian TAVI	Direct Aortic TAVI	Transcarotid TAVI	Protection Device During TAVI
Bern Inselspital	1	46	4	3	280	257	22	1	0	0	0
Zürich Triemli Stadtsptal	3	0	0	0	75	66	9	0	0	0	0
Zürich Universitätsspital	2	76	0	0	248	238	4	6	0	0	2
Lausanne CHUV	4	7	1	4	48	31	8	0	9	0	0
St. Gallen Kantonsspital	0	0	0	0	0	0	0	0	0	0	0
Basel Universitätsspital	5	13	0	1	103	83	17	0	1	0	19
Basel St.Clarasptal	0	0	0	5	0	0	0	0	0	0	0
Aarau Kantonsspital	0	10	0	1	0	0	0	0	0	0	0
Zürich Klinik Hirslanden	1	19	1	0	106	102	1	0	3	0	0
Luzern Kantonsspital	1	15	0	3	63	52	11	0	0	0	14
Fribourg Hopital	1	0	0	3	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Lugano Cardiocentro Ticino	5	24	1	1	61	52	6	0	3	0	0
Zürich Klinik im Park	0	34	0	3	84	n.a	n.a	0	0	0	0
Bern Klinik Beau-Site	1	0	0	0	31	23	8	0	0	0	0
Genève HUG	2	8	0	1	65	63	0	2	0	0	0
Lausanne Clinique Cecil	0	0	0	n.a	30	28	0	2	0	0	0
Genève Hôpital de La Tour	2	0	1	4	18	17	1	0	0	0	0
Bern Lindenhofspital	1	0	0	0	0	0	0	0	0	0	0
Aarau Hirslanden Klinik	0	11	0	0	93	n.a	n.a	n.a	0	0	0
Kreuzlingen Herz-Neuro-Zentrum	0	0	0	0	0	20	0	0	0	0	0
TOTAL	29	263	8	29	1305	1096	91	12	16	0	35

Others Percutaneous Structural Interventions In Adults in Switzerland in 2015

	Catheter Based Closure of PFO	Catheter Based Closure of ASD	Catheter Based Closure of VSD	Catheter based closure of LAA	Interventional Closure of Paravalvular Leak	Stem cell Treatment	Pericardial Drainage (ad Hoc or Programmed)	Catheter Based Therapy of Pulmonary Embolism	Renal Sympathetic Denervation	Other Cardiac Interventions
Bern Inselspital	178	34	1	93	19	0	45	50	1	0
Bern Tiefenauspital	4	0	0	0	0	0	6	0	0	0
Zürich Triemli Stadtsptal	40	15	0	14	0	0	11	0	0	1
Zürich Universitätsspital	54	9	1	132	9	0	25	3	6	0
Lausanne CHUV	28	9	0	2	5	0	16	0	2	0
St. Gallen Kantonsspital	15	1	0	5	0	0	2	0	0	0
Basel Universitätsspital	25	2	0	11	0	0	n.a	0	1	0
Basel St.Claraspital	0	0	0	0	0	0	4	0	0	0
Aarau Kantonsspital	40	4	0	23	0	0	8	0	0	0
Zürich Klinik Hirslanden	26	8	0	25	4	0	8	0	1	0
Luzern Kantonsspital	23	3	0	12	1	0	11	2	0	0
Fribourg Hopital	28	1	0	4	0	n.a	n.a	3	2	3 pulmonary vein int.
Lugano Cardiocentro Ticino	8	2	0	11	0	2	21	0	3	0
Zürich Klinik im Park	45	2	1	27	0	0	0	0	0	0
Bern Klinik Beau-Site	11	1	0	3	0	0	5	0	0	1 foreign body removal
Genève HUG	29	3	0	2	1	0	20	0	0	1 Embolisation
Lausanne Clinique Cecil	9	0	0	0	0	0	0	0	0	0
Sion Hôpital du Valais, HVS	12	0	1	0	0	0	15	0	0	0
Solothurn Bürgerspital	10	0	0	14	0	0	3	0	2	0
Biel Spitalzentrum	0	0	0	0	0	0	6	0	0	0
Genève Hôpital de La Tour	3	0	3	0	0	0	9	0	0	0
Winterthur Kantonsspital	26	0	0	0	0	0	6	0	0	0
Lausanne Clinique de la Source	0	0	0	0	0	0	4	0	0	0
Sion Clinique de la Valère	0	0	0	0	0	0	1	0	0	0
Liestal Kantonsspital Baselland	1	0	0	0	0	0	0	0	2	1 Embolisation
Luzern Klinik St. Anna	6	1	0	1	0	0	2	0	0	0
Bern Lindenhospital	20	2	0	5	0	0	2	0	0	0
Aarau Hirslanden Klinik	2	0	1	1	0	0	0	0	0	0
Genève Clinique des Grangettes	4	0	0	0	0	0	1	0	0	0
Genolier Clinique	0	0	0	0	0	0	0	0	1	0
Morges Hôpital	0	0	0	0	0	0	1	0	0	0
Kreuzlingen Herz-Neuro-Zentrum	0	0	0	2	0	0	0	0	0	0
Lachen Spital	8	0	0	0	0	0	3	0	0	0
Pfäffikon, Cardiance Clinic	4	0	0	5	0	0	3	0	0	0
TOTAL	659	97	8	392	39	2	238	58	21	7

Mean percentage of PCI in-hospital mortality in Switzerland 2015

