



Interventional Cardiology in Switzerland

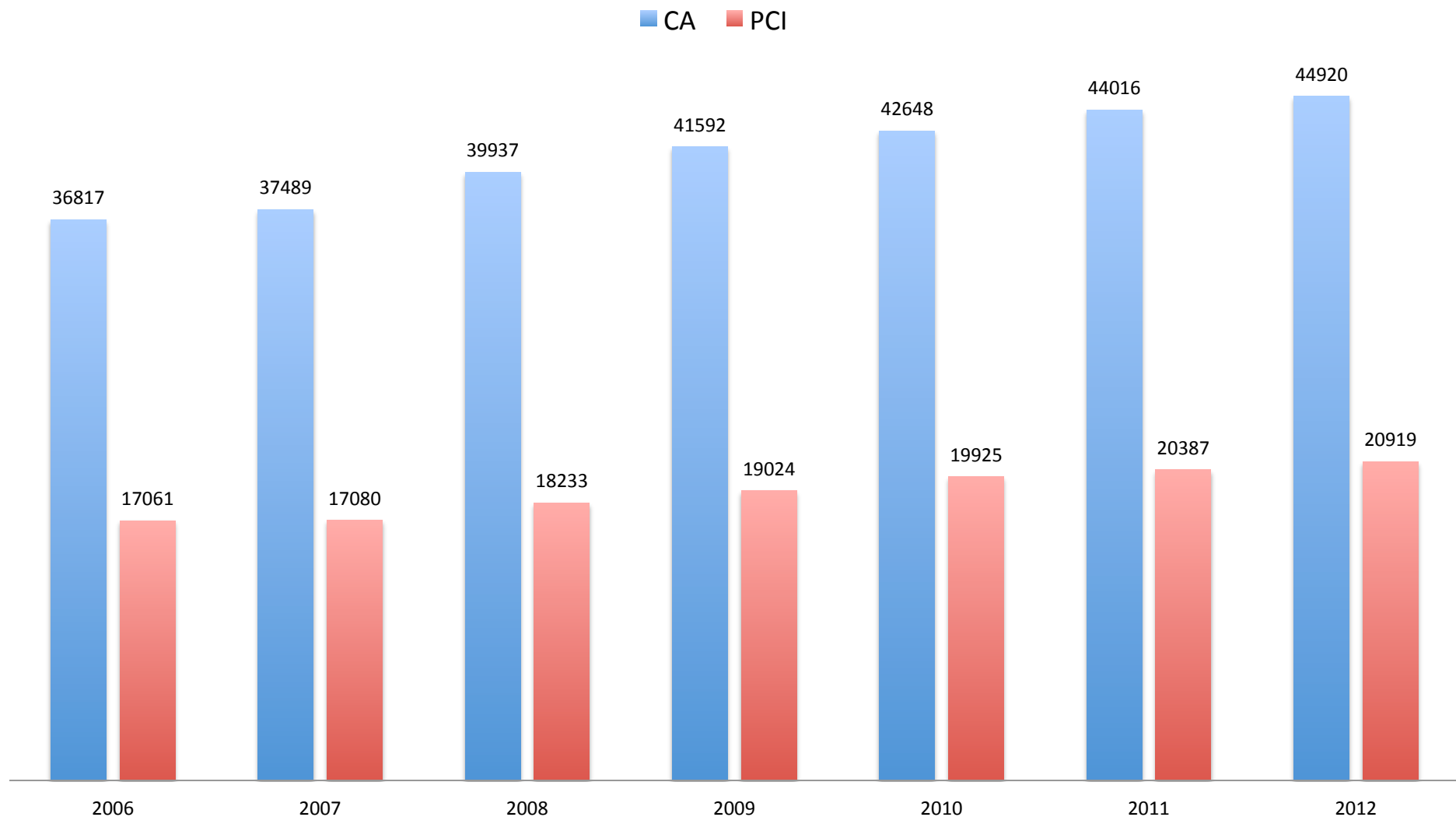
Annual Statistic Report 2012

Data collected and processed by

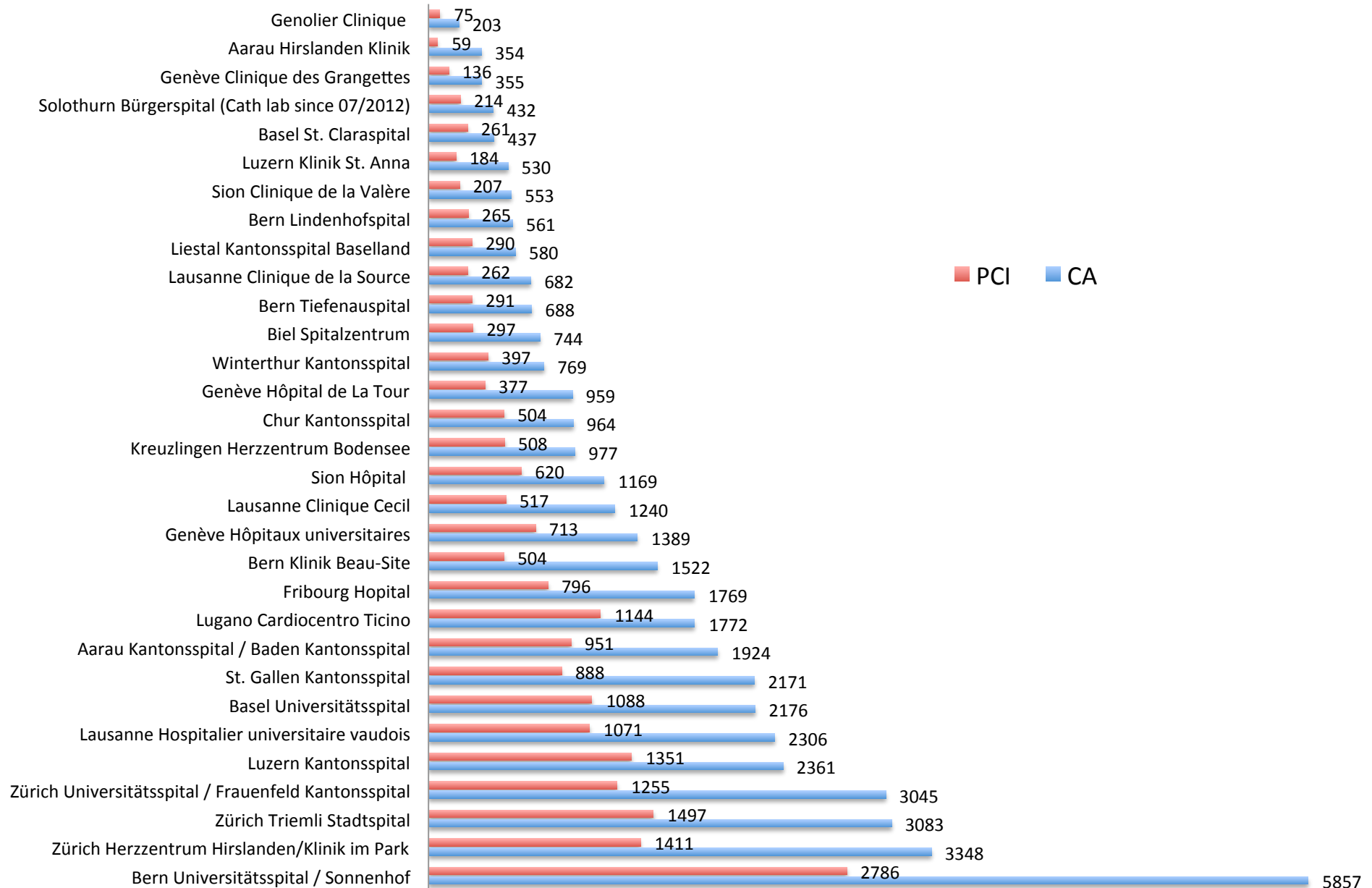
Gregor Fahrni, MD, University Hospital Basel

On behalf of the Swiss Working Group of
Interventional Cardiology and Acute Coronary Syndrome

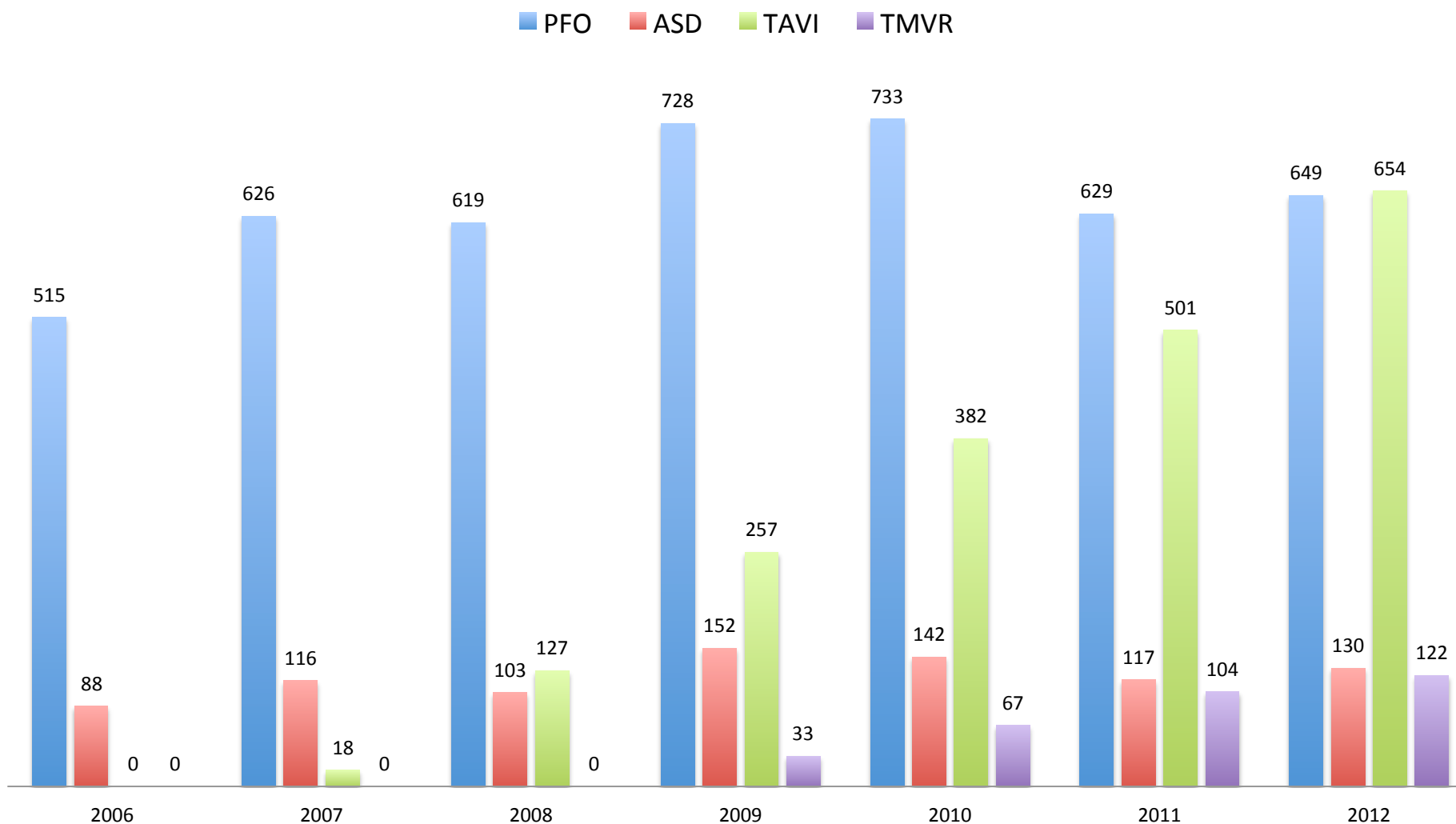
Coronary angiographies (CA) and percutaneous coronary interventions (PCI) from 2006 to 2012 in Switzerland



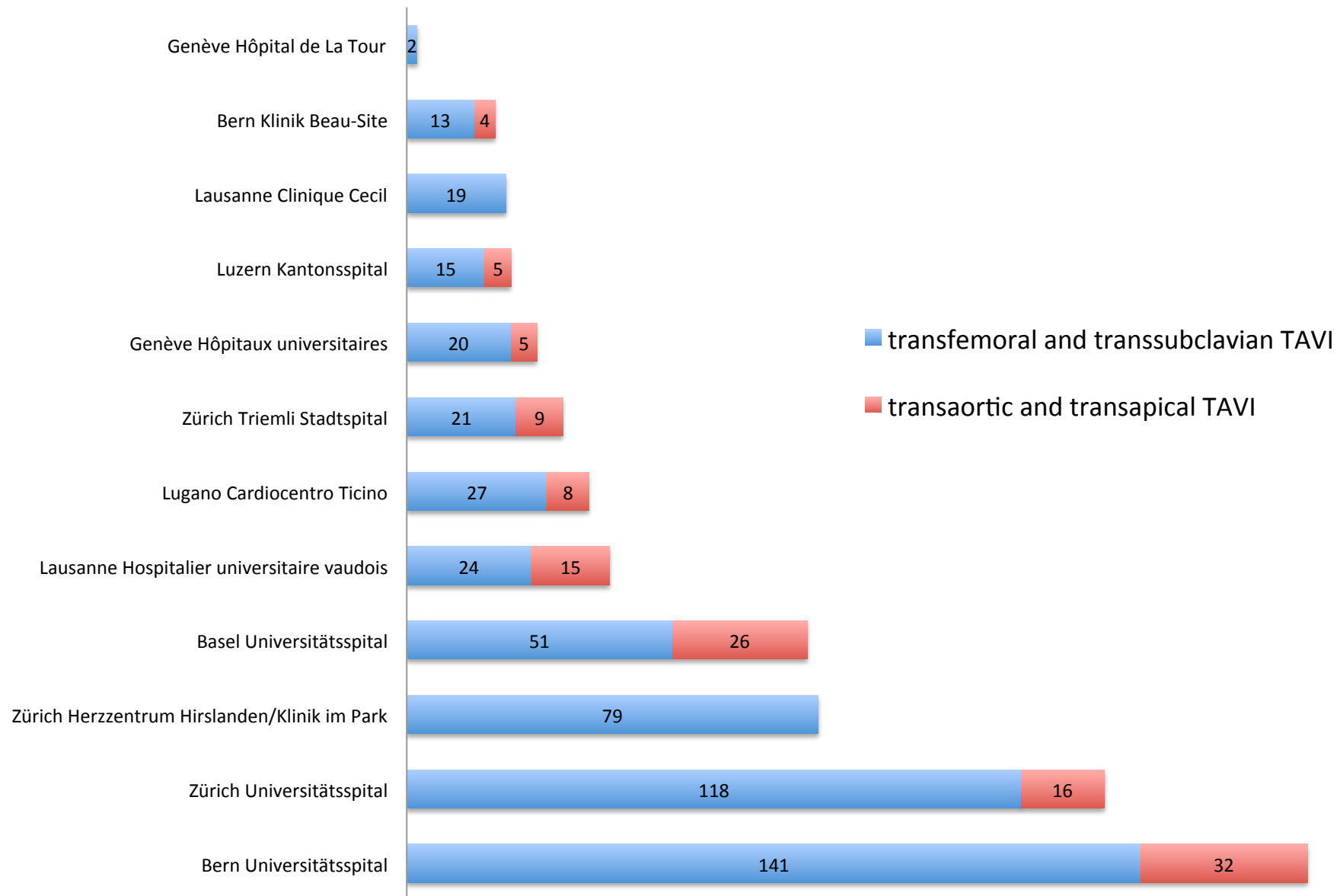
Coronary angiographies (CA) and percutaneous coronary interventions (PCI) in all centers during the year 2012 in Switzerland



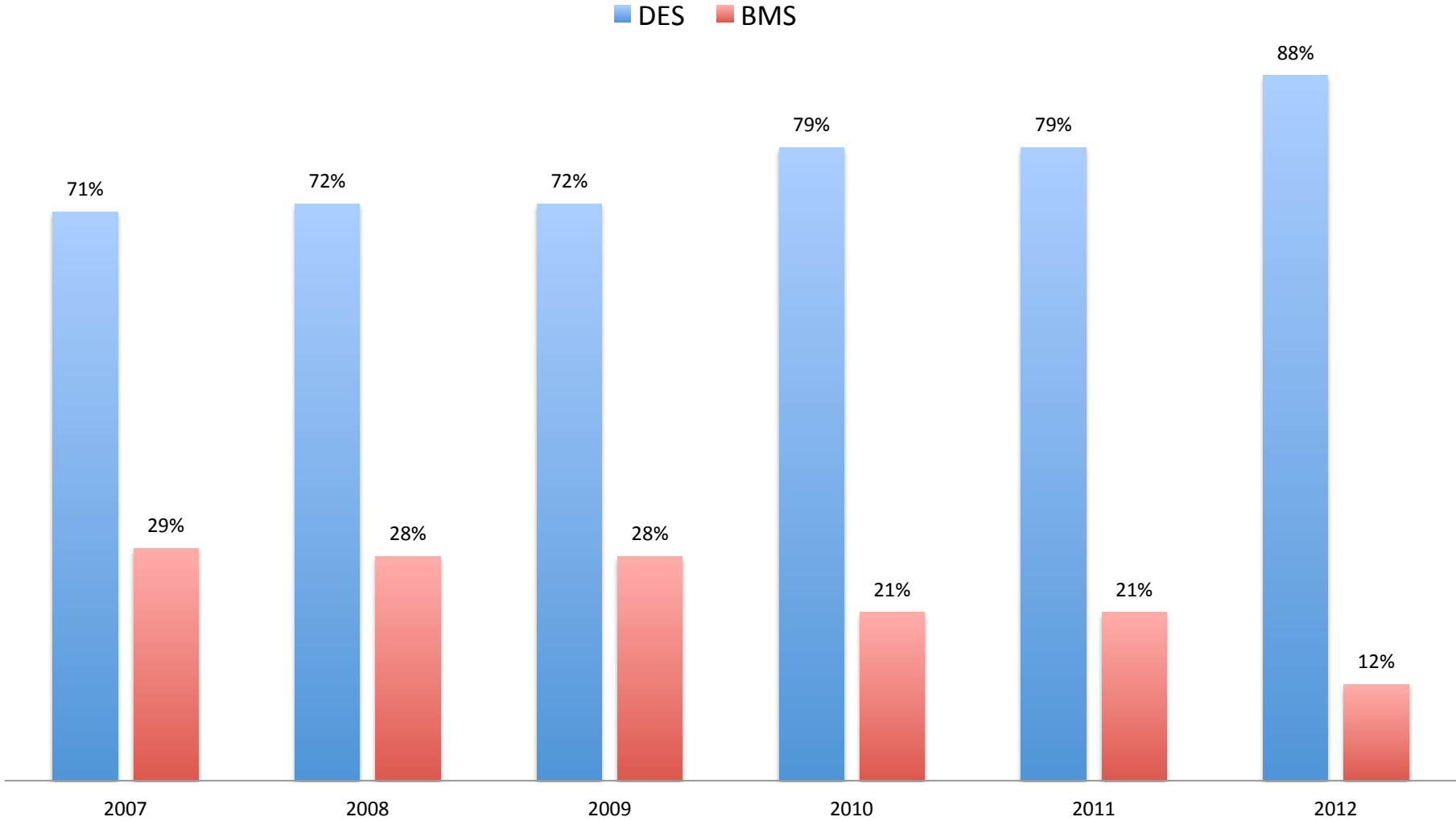
Interventions for structural heart defects closure of ASD and PFO, transcatheter aortic valve implantation (TAVI) and transcatheter mitral valve repair (TMVR) from 2006 to 2012 in Switzerland



Transcatheter aortic valve implantation (TAVI) in all centers during the year 2012 in Switzerland



Percentage of drug-eluting stents (DES) and bare-metal stents (BMS) from 2007 to 2012 in Switzerland



Operator and radial access in Switzerland 2012



		Operators diagnostic only	Operators interventional	Coronary angiography (CA) incl. PCI	Radial access CA	PCI	Radial access PCI	Cath labs	On-site surgery
Aarau Kantonsspital / Kantonsspital	Baden	1	4	1924	24%	951	21%	2	no
Aarau Hirslanden Klinik		2	4	354		59		2	yes
Basel Universitätsspital		2	7	2176	2%	1088	2%	2	yes
Basel St. Claraspital		2	2	437	0%	261	0%	1	no
Bern Universitätsspital / Sonnenhof		2	13	5857	6%	2786	6%	5	yes
Bern Klinik Beau-Site		2	4	1522	1%	504	1%	2	yes
Bern Lindenhofspital		0	5	561	0%	265	0%	1	no
Bern Tiefenauspital		1	3	688	53%	291	41%	1	no
Biel Spitalzentrum		0	7	744		297	11%	1	no
Chur Kantonsspital		0	3	964	58%	504	52%	1	no
Fribourg Hopital		0	5	1769	18%	796	16%	1	no
Genève Hôpitaux universitaires		0	5	1389	33%	713	74%	2	yes
Genève Clinique des Grangettes		6	9	355	58%	136	58%	1	no
Genève Hôpital de La Tour		8	5	959	38%	377	48%	1	yes
Genolier Clinique		0	5	203	38%	75	21%	1	no
Kreuzlingen Herzzentrum Bodensee		1	3	977	2%	508	12%	1	yes
Lausanne Clinique de la Source		0	4	682	48%	262	48%	1	no
Lausanne Clinique Cecil		10	3	1240	60%	517		1	yes
Lausanne Hospitalier univ. vaudois		0	7	2306	23%	1071	36%	2	yes
Liestal Kantonsspital Baselland		1	2	580	47%	290	40%	1	no
Lugano Cardiocentro Ticino		1	8	1772	11%	1144	17%	3	yes
Luzern Kantonsspital		6.5	4.5	2361	8%	1351	7%	2	yes
Luzern Klinik St. Anna		6	4	530	2%	184	2%	1	no
Sion Hôpital		0	5	1169	69%	620	68%	1	yes
Sion Clinique de la Valère		0	2	553	99%	207	99%	1	no
Solothurn Bürgerspital (cath lab since 07/2012)		0	2	432	13%	214	12%	1	no
St. Gallen Kantonsspital		1	7	2171	5%	888	11%	2	no
Winterthur Kantonsspital		0	4	769	49%	397		1	no
Zürich Herzzentrum Hirslanden/ Klinik im Park		9	14	3348	11%	1411	15%	5	yes
Zürich Triemli Stadtpital		6	6	3083	44%	1497	41%	2	yes
Zürich Universitätsspital / Frauenfeld Kantonsspital		0	8	3045		1255		4	yes
TOTAL		67.5	164.5	44920	29%	20919	28%	53	

Percutaneous coronary intervention (PCI) in Switzerland 2012



	PCI	Radial access PCI	Ad hoc PCI	Single vessel PCI	Multivessel PCI (in one session)	NSTEMI PCI	STEMI PCI	Cardio shock PCI	IABP	LVAD percutan	ECMO
Aarau Kantonsspital / Baden Kantonsspital	951	21%	56%	84%	10%	29%	28%	2%	15	3	0
Aarau Hirslanden Klinik	59		85%	83%	17%	24%	31%	0%	0	0	0
Basel Universitätsspital	1088	2%	94%	73%	27%	22%	26%	1%	2	37	0
Basel St. Claraspital	261	0%				11%	7%	1%	0	2	0
Bern Universitätsspital / Sonnenhof	2786	6%	98%			25%	20%	3%	35	1	0
Bern Klinik Beau-Site	504	1%	97%	85%	15%	13%	12%	1%	9	0	0
Bern Lindenhofspital	265	0%	70%	65%	35%	14%	9%	1%	0	3	0
Bern Tiefenauspital	291	41%	37%	88%	12%	26%	36%	0%	0	0	0
Biel Spitalzentrum	297	11%	92%	91%	9%		18%	1%	0	0	0
Chur Kantonsspital	504	52%	92%	87%	13%	21%	24%	1%	6	0	0
Fribourg Hopital	796	16%	98%	83%	17%	33%	12%	2%	11	0	0
Genève Hôpitaux universitaires	713	74%	84%	84%	16%	26%	24%	7%	33	0	7
Genève Clinique des Grangettes	136	58%	93%	74%	18%	0%	0%	0%	0	0	0
Genève Hôpital de La Tour	377	48%	90%	85%	15%	12%	5%	1%	5	0	0
Genolier Clinique	75	21%	91%	87%	13%	0%	3%	0%	0	0	0
Kreuzlingen Herzzentrum Bodensee	508	12%	80%	91%	9%	14%	8%	3%	5	0	0
Lausanne Clinique de la Source	262	48%	92%	76%	24%	5%	2%	0%	0	0	0
Lausanne Clinique Cecil	517		86%	81%	10%	1%	2%	0%	0	0	0
Lausanne Hospitalier univ. vaudois	1071	36%	71%	77%	7%	40%	26%	1%	17	0	0
Liestal Kantonsspital Baselland	290	40%	100%	64%	36%	42%	13%	1%	0	0	0
Lugano Cardiocentro Ticino	1144	17%	95%	44%	56%	16%	16%	3%	18	1	0
Luzern Kantonsspital	1351	7%	95%	51%	22%	6%	10%	3%	57	0	0
Luzern Klinik St. Anna	184	2%	93%	78%	22%	16%	11%	3%	0	0	0
Sion Hôpital	620	68%	99%	60%	39%	18%	17%	1%	10	1	0
Sion Clinique de la Valère	207	99%	76%	98%	2%	1%	1%	0%	0	0	0
Solothurn Bürgerspital (cath lab since 07/2012)	214	12%				21%	10%	0%	0	0	0
St. Gallen Kantonsspital	888	11%	92%	80%	20%	18%	23%	1%	15	1	0
Winterthur Kantonsspital	397			91%	9%	20%	30%	2%	5	0	0
Zürich Herzzentrum Hirslanden / Klinik im Park	1411	15%	87%	62%	27%	9%	8%	1%	23	0	0
Zürich Triemli Stadtpital	1497	41%		87%	13%	30%	30%	2%	83	0	0
Zürich Universitätsspital / Frauenfeld Kantonsspital	1255								80	0	0
TOTAL	20919	28%	86%	78%	19%	18%	15%	1%	429	49	7

Coronary stents and diagnostic in Switzerland 2012



	PCI	DES	BMS	Self-expand stents	Bioabsorb scaffolds	Rotablation	CA incl. PCI	CTO	FFR	Doppler i.c.	IVUS	OCT
Aarau Kantonsspital / Baden Kantonsspital	951	89%	11%	0	3	7	1924	72	53	0	23	0
Aarau Hirslanden Klinik	59	82%	18%	0	0	0	354	2	0	0	0	0
Basel Universitätsspital	1088	78%	22%	23	0	0	2176	39	32	0	13	0
Basel St. Claraspital	261	83%	17%	0	0	0	437	26	22	0	0	0
Bern Universitätsspital / Sonnenhof	2786	95%	5%			8	5857		35		14	39
Bern Klinik Beau-Site	504	94%	6%	0	0	1	1522	19	7	0	0	0
Bern Lindenhofspital	265	96%	4%	0	0	1	561	10	0	0	0	0
Bern Tiefenauspital	291	90%	10%	0	0	0	688	11	10	0	0	0
Biel Spitalzentrum	297	87%	13%	0	0	0	744	8	24	0	0	0
Chur Kantonsspital	504	94%	6%	0	0	5	964	53	89	0	18	0
Fribourg Hopital	796	80%	20%	12	38	7	1769	27	22	0	4	29
Genève Hôpitaux universitaires	713	82%	18%	0	0	13	1389	35	37	0	9	2
Genève Clinique des Grangettes	136	87%	13%	0	0	0	355	11	11	0	0	0
Genève Hôpital de La Tour	377	83%	17%	0	8	8	959	35	35	0	10	0
Genolier Clinique	75	94%	6%	0	0	0	203	0	28	0	0	0
Kreuzlingen Herzzentrum Bodensee	508	96%	4%	13	0	6	977	65	99	0	59	0
Lausanne Clinique de la Source	262	90%	10%	0	0	0	682	18	1	0	0	0
Lausanne Clinique Cecil	517	87%	13%	0	4	0	1240	8	33	0	0	0
Lausanne Hospitalier univ. vaudois	1071	70%	30%	11	15	8	2306	48	221	0	27	0
Liestal Kantonsspital Baselland	290	91%	9%	0	0	0	580	15	10	0	0	0
Lugano Cardiocentro Ticino	1144	95%	5%	0	8	3	1772	7	170	0	110	10
Luzern Kantonsspital	1351	94%	6%	0	8	8	2361	28	69	69	23	16
Luzern Klinik St. Anna	184	78%	22%	0	2	0	530	0	6	0	0	0
Sion Hôpital	620	79%	21%	0	15	0	1169	50	40	0	0	0
Sion Clinique de la Valère	207	94%	6%	0	3	0	553	15	0	0	0	0
Solothurn Bürgerspital (cath lab since 07/2012)	214			0	0	0	432	3	4	0	0	0
St. Gallen Kantonsspital	888	79%	21%	21	0	11	2171	57	12	0	3	15
Winterthur Kantonsspital	397	93%	7%	1	0	6	769	9	94	0	12	0
Zürich Herzzentrum Hirslanden/ Klinik im Park	1411	96%	4%	20	41	12	3348	65	257	0	67	4
Zürich Triemli Stadtsptal	1497	91%	9%	19	21	1	3083	28	71	0	3	10
Zürich Universitätsspital / Frauenfeld Kantonsspital	1255					8	3045		146	0	6	44
TOTAL	20919	88%	12%	120	166	113	44920	764	1638	69	401	169

Percutaneous valve intervention in Switzerland 2012



	Aortic valvuloplasty	TAVI	TAVI tf, ts	TAVI tap, tao	CV tf	CV ts	CV tao	Ed tf	Ed tao	Ed tap	Je tap	Other types of Valves	Embolic protection device	Mitral valvuloplasty	Mitraclip
Basel Universitätsspital	6	77	66%	34%	21	0	0	30	1	2	23	0	4	6	17
Bern Universitätsspital	3	173	82%	18%	65	4	0	72	0	21	0	11 Symetis (transapical)	5	8	18
Bern Klinik Beau-Site	17	17	76%	24%	0	0	0	13	0	4	0	0	0	0	0
Fribourg Hopital	2	0			0	0	0	0	0	0	0	0	0	0	0
Genève Hôpitaux universitaires	2	25	80%	20%	20	0	3	0	0	2	0	0	1	1	0
Genève Hôpital de La Tour	0	2	100%	0%	0	0	0	2	0	0	0	0	0	0	0
Lausanne Clinique Cecil	1	19	100%	0%	17	2	0	0	0	0	0	0	0	2	0
Lausanne Hospitalier universitaire vaudois	1	39	67%	33%	3	0	0	21	3	10	0	2 Melody	2	3	3
Lugano Cardiocentro Ticino	1	35	77%	23%	18	3	1	6	0	7	0	0	0	0	14
Luzern Kantonsspital	0	20	75%	25%	13	2	5	0	0	0	0	0	0	2	10
Zürich Herzzentrum Hirslanden/ Klinik im Park	8	79	100%	0%	8	0	0	71	0	0	0	0	3	0	16
Zürich Triemli Stadtspital	0	30	70%	30%	13	0	0	8	0	9	0	0	0	4	0
Zürich Universitätsspital	0	134	88%	12%										4	44
TOTAL	41	650	82%	18%	178	11	9	223	4	55	23		15	30	122

CoreValve (CV), EdwardsValve (Ed), JenaValve (Je), transfemoral (tf), transsubclavian (ts), transaortic (tao), transapical (tap)



Interventions for structural and other heart disease in Switzerland 2012

	PFO	ASD	PDA	VSD	LAA	Paraval. leak	TASH	aortic aneurysm stenting	Treatment pul. embolism	Stem cell treatment	Renal denervation	Other intervention
Aarau Kantonsspital / Baden Kantonsspital	31	4	0	0	10	0	0	0	0	0	0	0
Basel Universitätsspital	35	5	0	0	16	1	2	0	0	0	7	0
Basel St. Claraspital	4	2	0	0	0	0	0	0	0	0	0	0
Bern Universitätsspital / Sonnenhof	239	30	12	3	79	3	5	0	23	0	7	1 ¹ + 3 ²
Bern Klinik Beau-Site	2	1	0	0	1	0	0	0	0	0	0	0
Bern Lindenhofspital	15	0	0	0	3	0	0	0	0	0	0	0
Fribourg Hopital	32	2	0	0	6	1	2	0	0	0	10	0
Genève Hôpitaux universitaires	19	6	1	1	6	1	3	0	5	0	6	1 ³
Genève Clinique des Grangettes	3	0	0	0	0	0	0	0	0	0	0	0
Genève Hôpital de La Tour	12	2	0	0	0	0	0	0	0	0	5	0
Genolier Clinique	6	0	0	0	0	0	0	0	0	0	4	0
Kreuzlingen Herzzentrum Bodensee	13	2	0	0	0	0	0	0	0	0	19	0
Lausanne Clinique de la Source	0	0	0	0	0	0	2	0	0	0	0	0
Lausanne Clinique Cecil	17	0	0	0	0	0	0	0	0	0	4	0
Lausanne Hospitalier univ. vaudois	18	14	3	0	3	7	2	3	0	1	5	0
Lugano Cardiocentro Ticino	9	2	0	0	2	3	1	0	0	1	6	0
Luzern Kantonsspital	4	14	1	1	0	1	5	0	14	0	9	0
Luzern Klinik St. Anna	4	1	0	0	0	0	0	0	0	0	5	0
Sion Hôpital	12	2	0	0	1	2	0	0	0	0	0	0
Solothurn Bürgerspital (cath lab since 07/2012)	9	0	0	0	0	0	0	0	0	0	4	0
St. Gallen Kantonsspital	28	3	0	0	0	0	1	0	0	0	3	0
Winterthur Kantonsspital	10	1	0	0	0	0	0	0	0	0	0	0
Zürich Herzzentrum Hirslanden/ Klinik im Park	62	11	0	0	27	0	3	17	1	0	12	0
Zürich Triemli Stadtsptal	43	13	0	0	6	0	2	0	0	0	0	0
Zürich Universitätsspital / Frauenfeld Kantonsspital	22	15	1	0	19		2		0		10	
TOTAL	649	130	18	5	179	19	30	20	43	2	116	

¹ Pulmonal valvuloplasty

² Percutaneous pulmonary valve replacement

³ Closure of AV fistula