

SWISS STATISTICS OF CATHETER ABLATIONS

2015



Stiftung für Herzschrittmacher und Elektrophysiologie
Fondation pour la stimulation cardiaque et électrophysiologie
Fondazione per la stimolazione cardiaca ed elettrofisiologia

Overview

Ablation centers	25
Included in this statistic	25
Number of interventions*	5642
thereof number of EPS	423
Number of ablations	5758

** All completely recorded and aborted interventions are evaluated.*

Ablation Centers

Clinic No.	Center	Interventions/ thereof incomplete	thereof Aborted	Ablations*
101	Universitätsspital Basel	617 / 0 (0%)	0	647
102	Inselspital Bern	484 / 0 (0%)	3	518
103	Hôpital Cantonal Universitaire de Genève	269 / 1 (0%)	0	277
104	Centre Hospitalier Universitaire Vaudois (CHUV)	264 / 0 (0%)	1	276
105	Universitätsspital Zürich	482 / 0 (0%)	6	395
106	Universitäts-Kinderkliniken Zürich	51 / 0 (0%)	0	40
211	Hôpital Fribourgeois	62 / 0 (0%)	0	61
214	HerzZentrum & Rhythmologie Hirslanden, Zürich	224 / 2 (1%)	0	242
216	Cardiocentro Ticino, Lugano	123 / 0 (0%)	0	128
217	Kantonsspital Luzern, Sursee und Wolhusen	327 / 0 (0%)	0	313
218	Klinik St. Anna, Luzern	62 / 0 (0%)	0	61
220	Hôpital de la Tour	131 / 0 (0%)	0	143
228	Hôpital de Sion	35 / 0 (0%)	3	32
230	Solothurner Spitäler AG	60 / 0 (0%)	0	60
231	Kantonsspital St. Gallen	272 / 0 (0%)	1	260
233	GZO Spital Wetzikon	95 / 0 (0%)	0	79
234	Kantonsspital Winterthur	66 / 0 (0%)	1	71
236	Stadtspital Triemli, Zürich	242 / 0 (0%)	0	254
239	Klinik Beau-Site Bern	294 / 0 (0%)	2	304
246	Hirslandenklinik Aarau	214 / 0 (0%)	0	215
250	Klinik Im Park, Zürich	788 / 0 (0%)	4	883
251	Herzzentrum Bodensee, Kreuzlingen	69 / 0 (0%)	1	59
267	Clinique Cécil	355 / 0 (0%)	0	361
268	Clinique des Grangettes	9 / 0 (0%)	0	8
278	Clinique de Valère	50 / 0 (0%)	3	48
Total	25	5645 / 3 (0%)	25	5735

* Only ablations of completely recorded and non-aborted interventions are evaluated.

Omissions

0 centers that did not report data to CHPACE WEB and are therefore not included in the statistics

Ablation centers

10 centers with more than 250 interventions

Interventions and Ablations

according to number of interventions

No.	Center	Interventions	thereof aborted	Ablations
250	Klinik Im Park, Zürich	784	4	883
101	Universitätsspital Basel	617	0	647
102	Inselspital Bern	481	3	518
105	Universitätsspital Zürich	476	6	395
267	Clinique Cécil	355	0	361
217	Kantonsspital Luzern, Sursee und Wolhusen	327	0	313
239	Klinik Beau-Site Bern	292	2	304
231	Kantonsspital St. Gallen	271	1	260
103	Hôpital Cantonal Universitaire de Genève	268	0	277
104	Centre Hospitalier Universitaire Vaudois (CHUV)	263	1	276
Total	10	4134	17	4234

Ablation Procedures

according to number of interventions

No.	Center	AF	RAFlu	LAFlu	AT	AP	AVNRT	VT	PVC	AVN	AVN(R)	Other
250	Klinik Im Park, Zürich	393	184	18	39	40	136	16	29	0	32	0
101	Universitätsspital Basel	235	139	1	23	21	106	62	21	10	29	0
105	Universitätsspital Zürich	142	81	1	28	25	89	14	8	5	7	1
102	Inselspital Bern	150	170	6	12	31	73	33	11	11	24	0
267	Clinique Cécil	109	82	9	8	27	52	6	18	14	36	0
217	Kantonsspital Luzern, Sursee und Wolhusen	106	88	4	9	17	59	8	6	4	11	1
239	Klinik Beau-Site Bern	123	74	11	28	16	34	1	5	3	10	1
231	Kantonsspital St. Gallen	81	65	0	5	14	66	6	5	3	16	0
103	Hôpital Cantonal Universitaire de Genève	88	69	20	10	14	33	10	10	12	11	0
104	Centre Hospitalier Universitaire Vaudois (CHUV)	90	58	10	12	17	35	30	5	0	18	2
Total	10	1517	1010	80	174	222	683	186	118	62	194	5

Ablation centers

5 centers with 100 to 250 interventions

Interventions and Ablations

according to number of interventions

No.	Center	Interventions	thereof aborted	Ablations
236	Stadtspital Triemli, Zürich	242	0	254
214	HerzZentrum & Rhythmologie Hirslanden, Zürich	222	0	242
246	Hirslandenklinik Aarau	214	0	215
220	Hôpital de la Tour	131	0	143
216	Cardiocentro Ticino, Lugano	123	0	128
Total	5	932	0	982

Ablation Procedures

according to number of interventions

No.	Center	AF	RAFlu	LAFlu	AT	AP	AVNRT	VT	PVC	AVN	AVN(R)	Other
236	Stadtspital Triemli, Zürich	92	71	17	14	13	32	2	5	4	4	0
214	HerzZentrum & Rhythmologie Hirslanden, Zürich	128	37	3	6	9	41	3	2	0	12	1
246	Hirslandenklinik Aarau	76	41	0	13	13	54	1	7	3	6	1
220	Hôpital de la Tour	53	47	2	1	12	21	0	1	1	5	0
216	Cardiocentro Ticino, Lugano	38	21	3	3	2	29	10	5	7	10	0
Total	5	387	217	25	37	49	177	16	20	15	37	2

Ablation centers

10 centers with less than 100 interventions

Interventions and Ablations

according to number of interventions

No.	Center	Interventions	thereof aborted	Ablations
233	GZO Spital Wetzikon	95	0	79
251	Herzzentrum Bodensee, Kreuzlingen	68	1	59
234	Kantonsspital Winterthur	65	1	71
211	Hôpital Fribourgeois	62	0	61
218	Klinik St. Anna, Luzern	62	0	61
230	Solothurner Spitäler AG	60	0	60
106	Universitäts-Kinderkliniken Zürich	51	0	40
278	Clinique de Valère	47	3	48
228	Hôpital de Sion	32	3	32
268	Clinique des Grangettes	9	0	8
Total	10	551	8	519

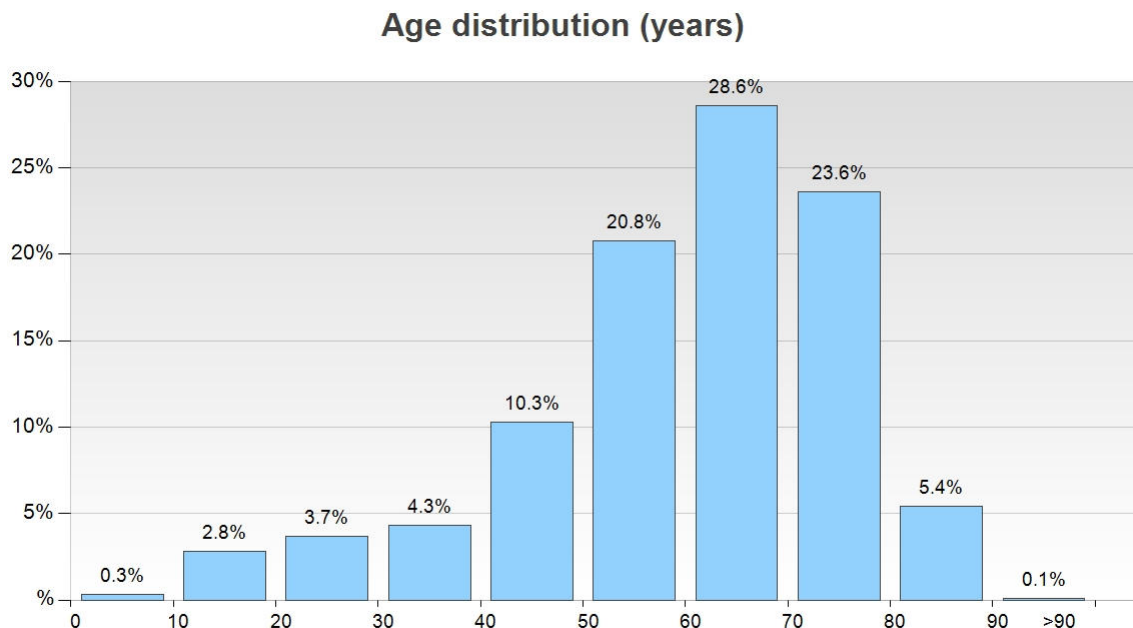
Ablation procedures

according to number of interventions

No.	Center	AF	RAFlu	LAFlu	AT	AP	AVNRT	VT	PVC	AVN	AVN(R)	Other
233	GZO Spital Wetzikon	15	32	0	3	1	21	0	1	0	6	0
251	Herzzentrum Bodensee, Kreuzlingen	30	5	0	2	3	7	5	4	1	3	0
234	Kantonsspital Winterthur	32	19	3	2	1	14	0	1	0	0	0
211	Hôpital Fribourgeois	7	11	0	1	4	13	0	5	8	12	0
218	Klinik St. Anna, Luzern	10	15	0	3	4	24	0	0	0	5	0
230	Solothurner Spitäler AG	0	26	0	0	2	21	0	0	3	8	0
278	Clinique de Valère	13	10	0	3	1	15	1	0	1	5	0
106	Universitäts-Kinderkliniken Zürich	0	2	0	3	21	13	0	0	0	1	0
228	Hôpital de Sion	0	11	1	1	4	7	0	0	6	5	0
268	Clinique des Grangettes	0	1	0	1	1	3	0	0	1	1	0
Total	10	107	132	4	19	42	138	6	11	20	46	0

All ablation types

Number of ablations, not aborted: 5735



Age (years)	min.	Ø	max.
Female	5	59	95
Male	5	61	97
All	5	60	97

Number of patients	n	%
Females	2027	36.09
Males	3590	63.91
Total	5617	

Anesthesia	n	%
Local	4702	83.71
General	915	16.29
Total	5617	

Combinations of ablations performed during one intervention

Number of interventions	5196
AF	1572
RAFlu	957
AVNRT	953
AF RAFlu	339
AP	300
AVN(R)	262
VT	203
AT	164
PVC	142
AVN	84
LAFIu	48
AF AT	25
AF LAFIu	23
AF LAFIu RAFlu	18
AT AVNRT	16
AVN AVN(R)	13
RAFlu AT	11
LAFIu RAFlu	11
RAFlu AVNRT	9
AF AVNRT	9
AP AVNRT	6
LAFIu AT	5
AF RAFlu AT	3
AVNRT PVC	2
AF Other	2
AF RAFlu PVC	2
Other	2
RAFlu AP	2
VT PVC	1
AP Other	1
AT AVNRT VT	1
RAFlu AVN(R)	1
LAFIu Other	1
AF AP	1
AF AT AVNRT	1
AF RAFlu AP	1
VT Other	1
RAFlu VT	1
AF RAFlu AVNRT	1
AF LAFIu AT	1
AF LAFIu RAFlu AT	1

Only completely documented and non-aborted interventions are counted.

Ablation procedures or EPS

Atrial Fibrillation	1999
Paroxysmal	1377
Persistent	594
Long-standing Persistent	28

Left Atrial Flutter	108
Roof-dependent	31
Perimitral	34
Peri-Incisional	1
Peri Ostial Pulm. Vein	20
Other	46

Accessory Pathway	311
Concealed	100
WPW	186
Asymptomatic Preexcitation	22
Atrio-Fascicular	0
PJRT	1
Mahaim	0
Other	6

AVN (to Resync.)	97
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AVN (Rate Control)	276
Paroxysmal	77
Persistent	122
Long-standing Persistent	77

Other Arrhythmia	7
PAC	3
JET	0
SNT	0
Other	4

Right Atrial Flutter	1357
Cavotricuspid	1322
Scar Related	25
Other	25

Atrial Tachycardia	228
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AVNRT	998
Slow-Fast	947
Fast-Slow	37
Slow-Slow	32

VT	207
Monomorphic	159
Polymorphic	19
Ischemic	60
RVOT	53
LVOT / Aortic Cusp	16
Left Fascicular VT	19
BB Reentry	2
Epicardial	9
Other	66

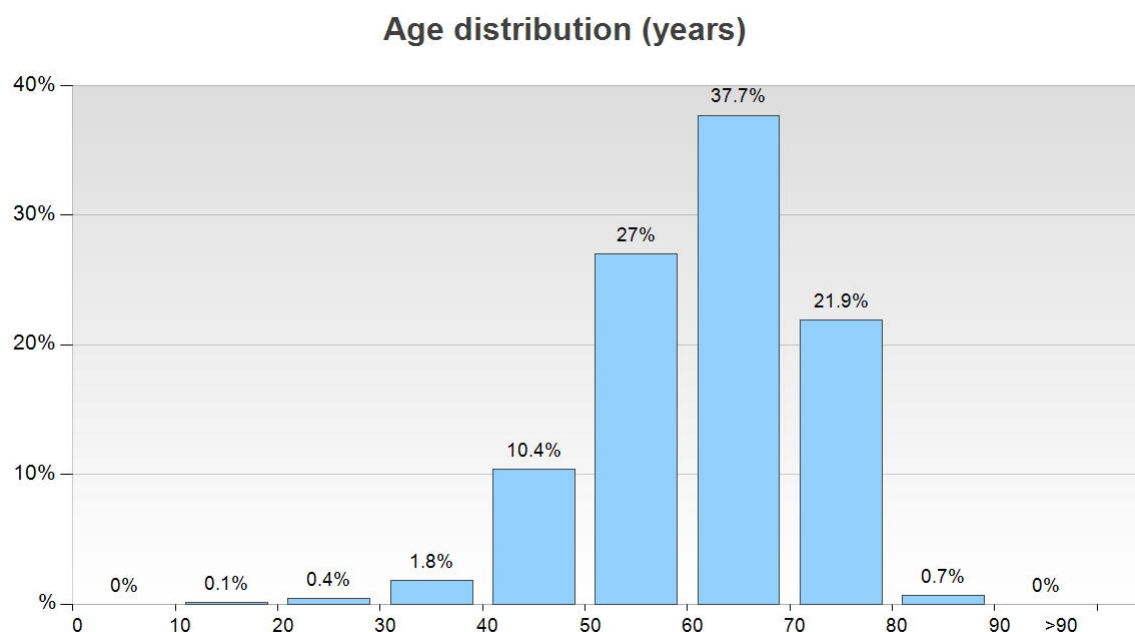
PVC	147
Monomorphic	121
Polymorphic	14
Ischemic	1
RVOT	69
LVOT / Aortic Cusp	42
Left Fascicular VT	4
HP System	2
Other	23

EPS only	421
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Atrial Fibrillation

Ablation of Atrial Fibrillation (AF)	n
All interventions	1999
AF combined with others	427
AF combined with RAFLa	339
AF only	1572

The following statistics include AF only procedures



Age (years)	min.	Ø	max.
Female	26	65	84
Male	19	61	83
All	19	62	84

Number of patients	n	%
Females	476	30.28
Males	1096	69.72
Total	1572	

Atrial Fibrillation

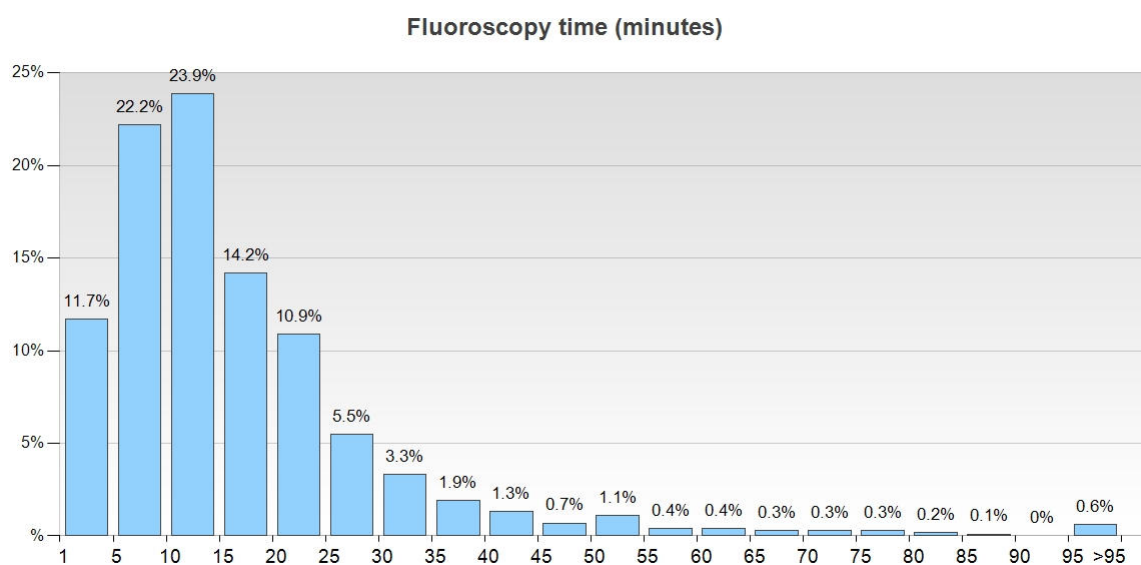
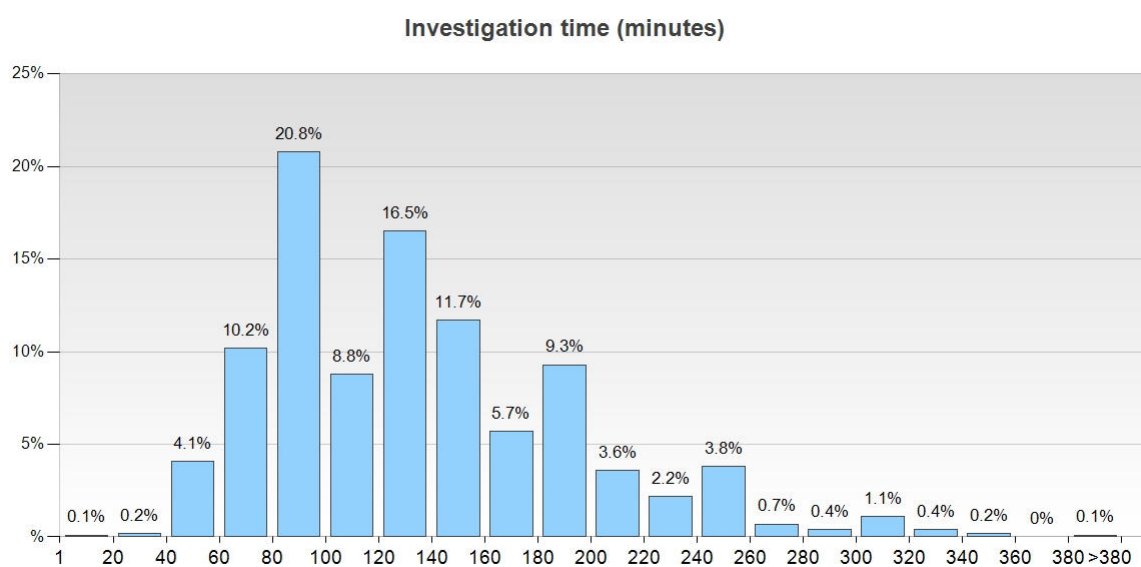
Cardiopathy (Underlying heart disease)	n	%
None	1076	68.45
Hypertensive Cardiomyopathy	171	10.88
Ischemic	108	6.87
Tachycardiomyopathy	84	5.34
Valvular	38	2.42
Other	33	2.1
H(O)CM	20	1.27
Dilated	19	1.21
Angioplasty	13	0.83
Congenital	5	0.32
Post Valvular Surgery	3	0.19
Post Congenital Surgery	1	0.06
CABG	1	0.06
Early Repolarization Syndrome	0	0
Channelopathy short QT	0	0
Infiltrative	0	0
Catecholaminergic Polymorphic VT	0	0
Brugada Syndrome	0	0
Channelopathy long QT	0	0
RV Cardiomyopathy	0	0
Total	1572	

Symptoms	n
Palpitations	1309
Dyspnea	413
Fatigue	309
Dizziness	157
Other	85
None	54
Syncope	40
Angina Pectoris	21
SCD	1

Atrial Fibrillation

Anesthesia	n	%
Local	1020	64.89
General	552	35.11
Total	1572	

Minutes	min.	Ø	max.	n	n ₀ *
Investigation time	14	131.8	390	1572	0
Fluoroscopy time	1	16.5	294	1558	14



Atrial Fibrillation

Type of AF	n	%
Paroxysmal	1096	69.72
Persistent	454	28.88
Long-standing Persistent (>1 Year)	22	1.4

EHRA-Score	n	%
Score I	198	12.6
Score II	736	46.82
Score III	610	38.8
Score IV	28	1.78

Type of Intervention	n	%
Percutaneous	1571	99.94
Hybrid (Epicardial + Endovascular)	1	0.06
Surgical Ablation	0	0

Intervention	n	%
Primary Intervention	1211	77.04
Redo	361	22.96

Antiarrhythmic Drugs	n
Beta Blocker	945
Amiodarone	441
None	212
Flecainide	198
Sotalol	89
Dronedarone	48
Calcium Antagonist	42
Propafenone	23
Digitalis	20
Other	19

Thromboembolic Risk Factors	n
Hypertension	595
Prior MI, Per. Artery Disease, Aortic Plaque	97
Stroke, TIA, Other Embolic Event	75
Congestive Heart Failure, LV dysfunction	73
Diabetes	63

Atrial Fibrillation

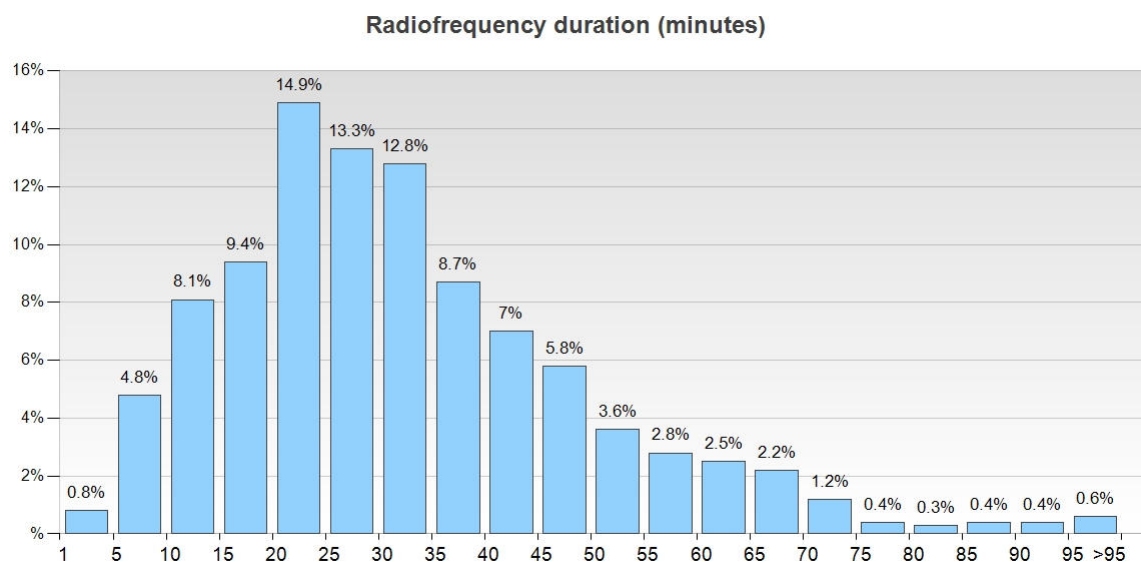
Anticoagulation, Antiaggregation	n
Factor Xa-Antagonist	1029
Vitamin K-Antagonist	280
None	89
Other	83
Direct Thrombin Inhibitor	73
Aspirin	43
Clopidogrel	9
Ticagrelor	1
Prasugrel	0

CHA₂DS₂-VASc Score	n
Score = 0	421
Score = 1	462
Score = 2	388
Score = 3	193
Score = 4	84
Score = 5	17
Score = 6	7
Score = 7	0
Average Score	1.45

Site of Ablation	n
RIPV	1470
LSPV	1441
RSPV	1434
LIPV	1431
CFAE	93
Non-PV Focus	77
Roof Line	55
RMPV	15
SVC	15
Other Lines	14
Mitral Isthmus Line	13
Other Veins	7
Vein of Marshall	4
Septal Line	2

Atrial Fibrillation

Radiofrequency	min.	Ø	max.	n	n ₀ *
Duration (minutes)	1	31.9	120	1261	1
Irrigated Technology				1151	
RF Duty Cycled				206	



Atrial Fibrillation

Cryoablation	min.	Ø	max.	n	n₀*
Total Duration (minutes)	3	23.8	120	125	0

	n
Additional RF or Cryo Cath Needed	1

	n
Laser Balloon	2

	n
Contact Force	97

	n
Irrigated Multielectrode Ablation	0

Access	n	%
Trans-septal, Puncture	1374	87.4
Trans-septal, PFO	160	10.18
Other	37	2.35
Epicardial, Coronary Sinus	1	0.06
Venous	0	0
Epicardial, Sub-xiphoid	0	0
Epicardial, Thoracotomy	0	0
Arterial	0	0
Epicardial, Thoracoscopy	0	0
Total	1572	

Mapping	n	%
3D Mapping	1050	66.79
Conventional	313	19.91
Lasso	169	10.75
Other	33	2.1
Basket	6	0.38
Non Contact	1	0.06
HD Mesh	0	0
Total	1572	

Atrial Fibrillation

Catheter Steering	n	%
Conventional	1534	97.58
Other	31	1.97
Stereotaxis	5	0.32
Hansen	2	0.13
Total	1572	

Results	n
All Veins Isolated	1563
Roof Line Block Confirmed	36
Roof Line Block Not Confirmed	14
Mitral Isthmus Line Block Confirmed	13
Not All Veins Isolated	8
Mitral Isthmus Line Block Not Confirmed	4

Sinus Rhythm	n
Spontaneous	894
By Ablation	344
With Electrical Cardioversion / Stimulation	335
AAD	14
Not Achieved	10

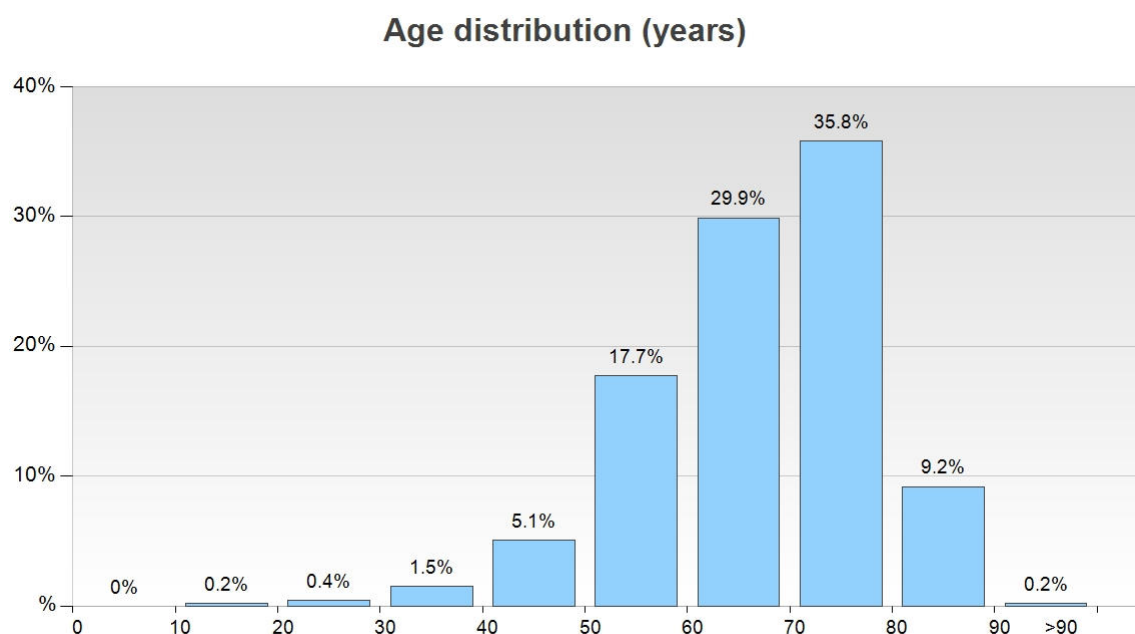
Atrial Fibrillation

Periprocedural Complications	n
No complications	1539
Pericardial Effusion	11
Tamponade	10
Inguinal Hematoma	6
Other	4
Pulmonary Oedema	2
Stroke	1
Pseudoaneurysm	1
Phrenic Nerve Paralysis	1
TIA	1
High Degree or Complete AV Block	0
Pulmonary Embolism	0
Hemothorax	0
Arterial Thrombosis	0
PV Stenosis	0
Myocardial Infarction	0
Transient AV Block	0
Arterial Occlusion	0
Death	0
Pneumothorax	0
Aortic Dissection	0
Valvular Lesion	0
AV Fistula	0
Infection	0

Right Atrial Flutter

Ablation of Right Atrial Flutter (RAFlu)	n
All interventions	1357
RAFlu combined with others	400
RAFlu only	957

The following statistics include RAFlu only procedures



Age (years)	min.	Ø	max.
Female	16	69	91
Male	16	67	93
All	16	67	93

Number of patients	n	%
Females	220	22.99
Males	737	77.01
Total	957	

Right Atrial Flutter

Cardiopathy (Underlying heart disease)	n	%
None	486	50.78
Ischemic	120	12.54
Hypertensive Cardiomyopathy	114	11.91
Tachycardiomyopathy	61	6.37
Valvular	56	5.85
Congenital	28	2.93
Other	28	2.93
Dilated	25	2.61
H(O)CM	16	1.67
Post Valvular Surgery	8	0.84
Post Congenital Surgery	7	0.73
CABG	3	0.31
RV Cardiomyopathy	3	0.31
Infiltrative	2	0.21
Early Repolarization Syndrome	0	0
Channelopathy short QT	0	0
Catecholaminergic Polymorphic VT	0	0
Brugada Syndrome	0	0
Channelopathy long QT	0	0
Angioplasty	0	0
Total	957	

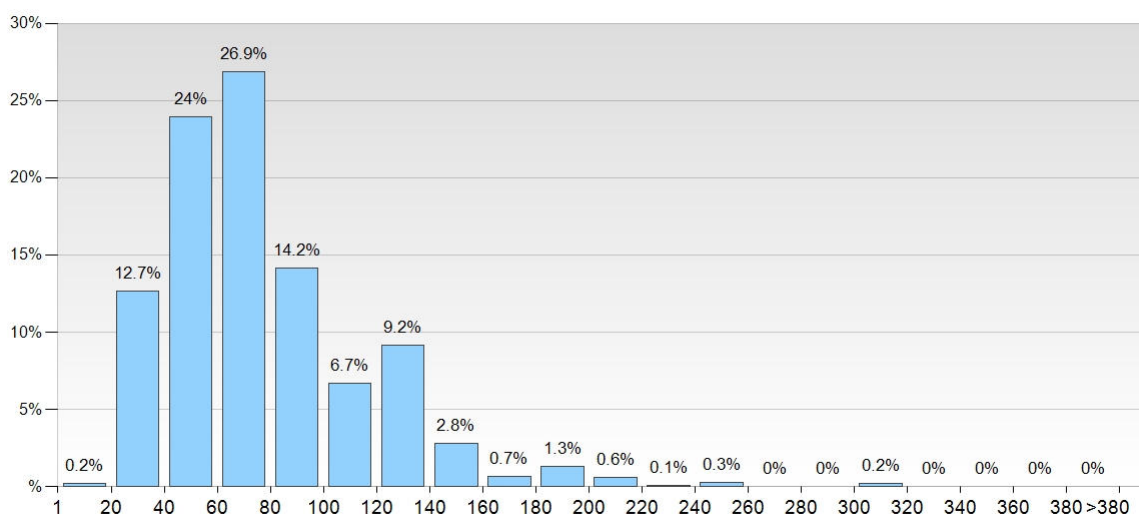
Symptoms	n
Palpitations	763
Dyspnea	369
Fatigue	200
Dizziness	101
None	34
Other	28
Angina Pectoris	24
Syncope	19
SCD	2

Right Atrial Flutter

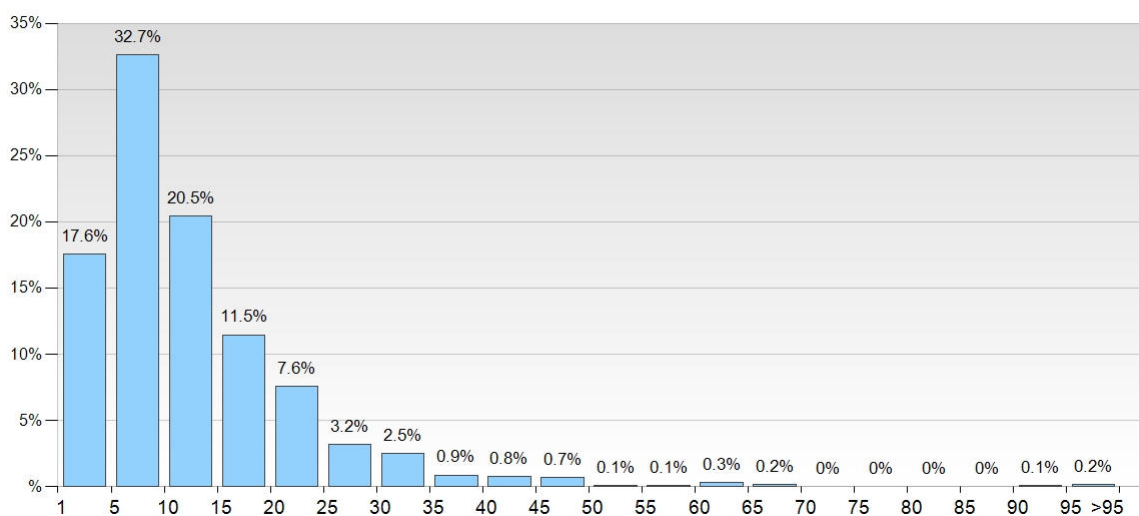
Anesthesia	n	%
Local	936	97.81
General	21	2.19
Total	957	

Minutes	min.	Ø	max.	n	n ₀ *
Investigation time	15	73.5	300	957	0
Fluoroscopy time	1	12.6	391	949	8

Investigation time (minutes)



Fluoroscopy time (minutes)



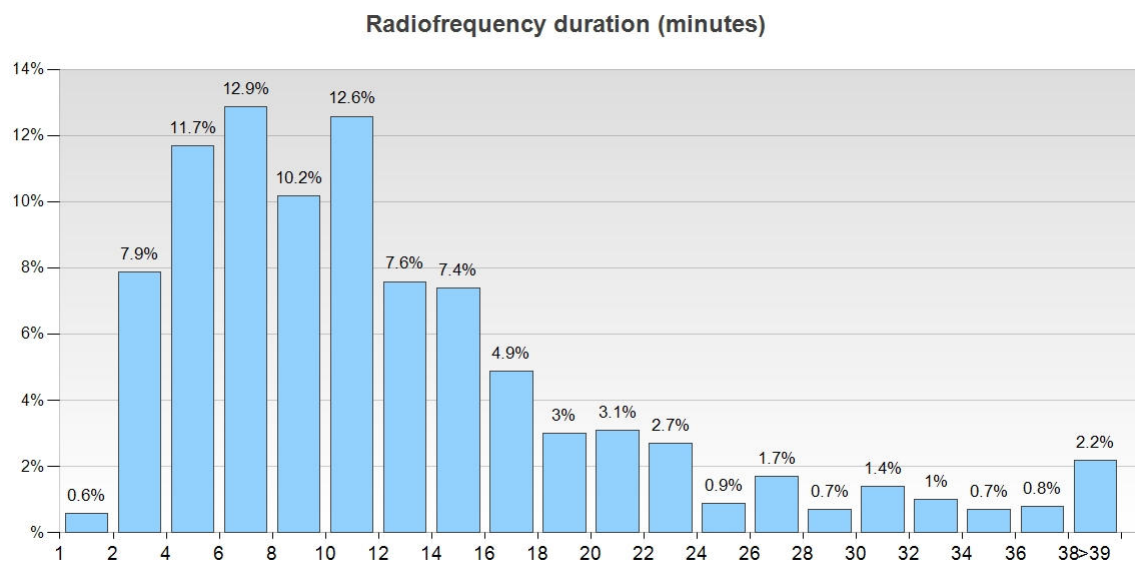
Right Atrial Flutter

Type of Flutter	n
Cavotricuspid	931
Scar related	18
Other	18

Intervention	n	%
Primary Intervention	880	91.95
Redo	77	8.05

Right Atrial Flutter

Radiofrequency	min.	Ø	max.	n	n ₀ *
Duration (minutes)	1	13.3	559	900	55
Irrigated Technology				525	



Right Atrial Flutter

Cryoablation	min.	Ø	max.	n	n ₀ *
Total Duration (minutes)	17	20.5	24	2	0

	n
Additional RF or Cryo Cath Needed	3

Access	n	%
Venous	955	99.79
Other	2	0.21
Epicardial, Thoracoscopy	0	0
Epicardial, Coronary Sinus	0	0
Trans-septal, Puncture	0	0
Epicardial, Sub-xiphoid	0	0
Epicardial, Thoracotomy	0	0
Trans-septal, PFO	0	0
Arterial	0	0
Total	957	

Mapping	n	%
Conventional	793	82.86
3D Mapping	163	17.03
Basket	1	0.1
Other	0	0
Non Contact	0	0
HD Mesh	0	0
Lasso	0	0
Total	957	

Catheter Steering	n	%
Conventional	952	99.48
Stereotaxis	3	0.31
Other	2	0.21
Hansen	0	0
Total	957	

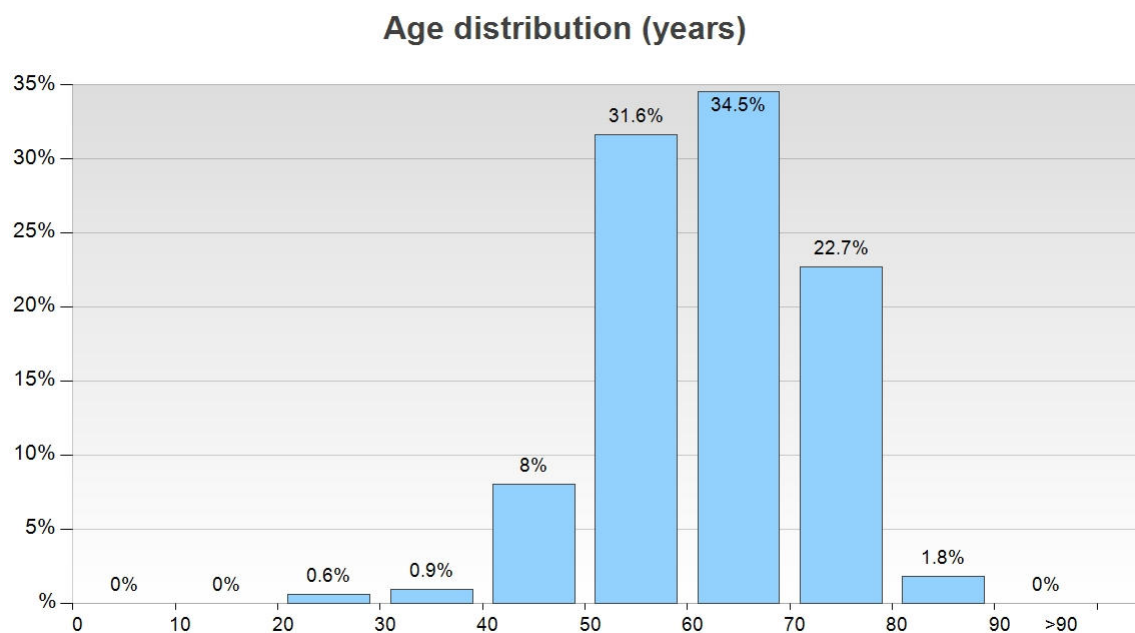
Results	n	%
Block confirmed	927	96.87
Block not confirmed	30	3.13

Right Atrial Flutter

Periprocedural Complications	n
No complications	949
Other	3
Inguinal Hematoma	3
Pericardial Effusion	1
TIA	1
Transient AV Block	0
Arterial Occlusion	0
Death	0
Pneumothorax	0
Aortic Dissection	0
Valvular Lesions	0
AV Fistula	0
Infection	0
Stroke	0
High Degree or Complete AV Block	0
Pulmonary Embolism	0
Hemothorax	0
Arterial Thrombosis	0
Pulmonary Oedema	0
Tamponade	0
Pseudoaneurysm	0
PV Stenosis	0
Myocardial Infarction	0
Phrenic Nerve Paralysis	0

Atrial Fibrillation combined with Right Atrial Flutter

Number of interventions (AF with RAFlu): 339



Age (years)	min.	Ø	max.
Female	41	64	84
Male	27	62	84
All	27	63	84

Number of patients	n	%
Females	85	25.07
Males	254	74.93
Total	339	

Atrial Fibrillation combined with Right Atrial Flutter

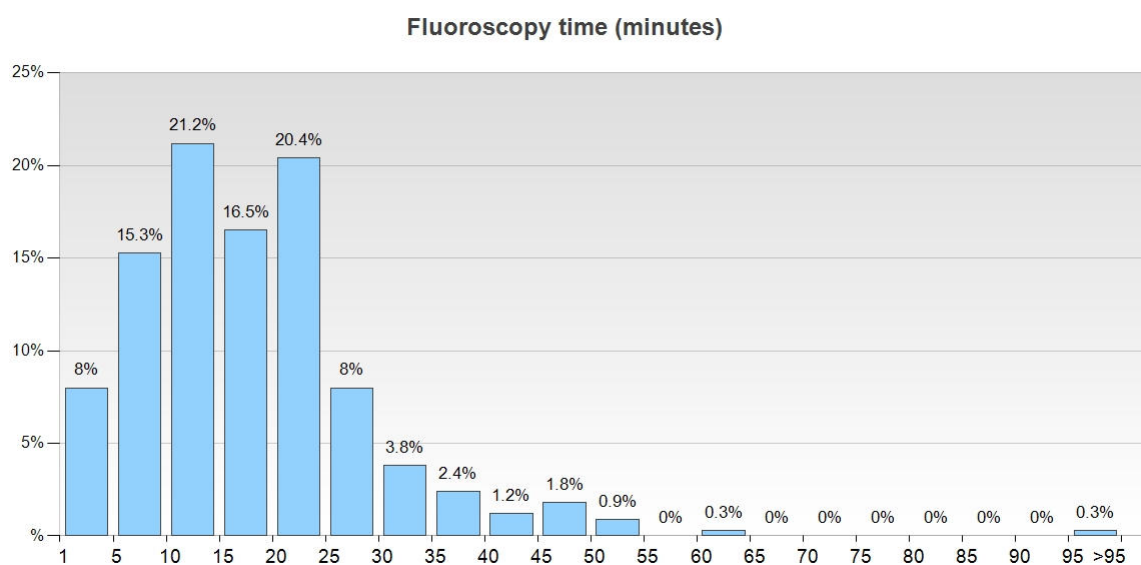
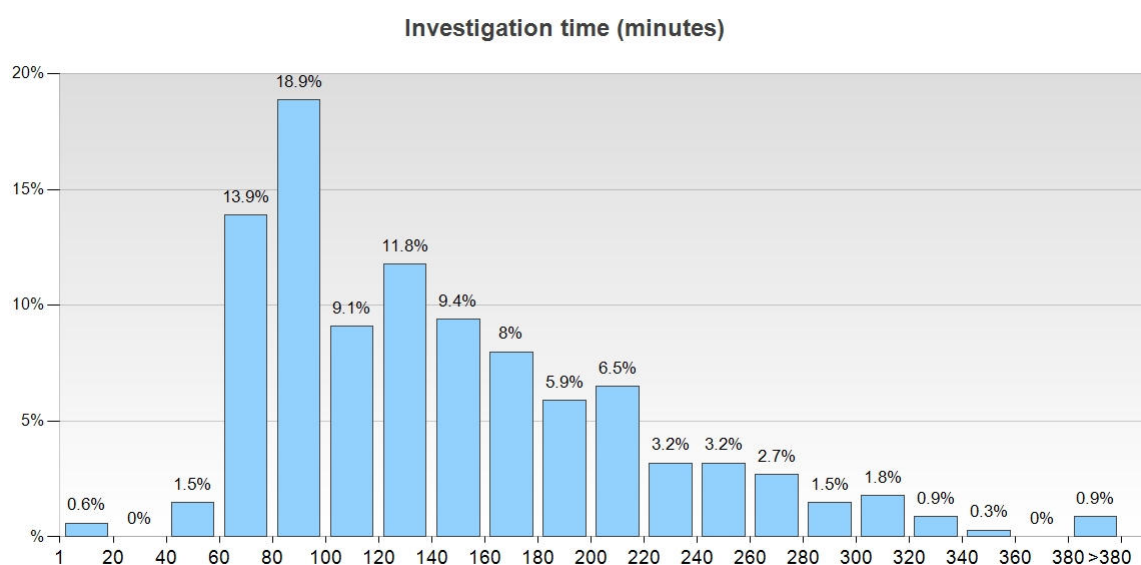
Cardiopathy (Underlying heart disease)	n	%
None	212	62.54
Hypertensive Cardiomyopathy	30	8.85
Tachycardiomyopathy	24	7.08
Ischemic	22	6.49
Other	21	6.19
Dilated	8	2.36
Valvular	8	2.36
Angioplasty	8	2.36
Congenital	3	0.88
H(O)CM	3	0.88
Early Repolarization Syndrome	0	0
Channelopathy short QT	0	0
Post Congenital Surgery	0	0
Infiltrative	0	0
CABG	0	0
Catecholaminergic Polymorphic VT	0	0
Brugada Syndrome	0	0
Post Valvular Surgery	0	0
Channelopathy long QT	0	0
RV Cardiomyopathy	0	0
Total	339	

Symptoms	n
Palpitations	278
Dyspnea	83
Fatigue	68
Other	62
Dizziness	28
Syncope	9
None	5
Angina Pectoris	5
SCD	0

Atrial Fibrillation combined with Right Atrial Flutter

Anesthesia	n	%
Local	201	59.29
General	138	40.71
Total	339	

Minutes	min.	Ø	max.	n	n ₀ *
Investigation time	15	142.5	500	339	0
Fluoroscopy time	1	17.6	135	339	0



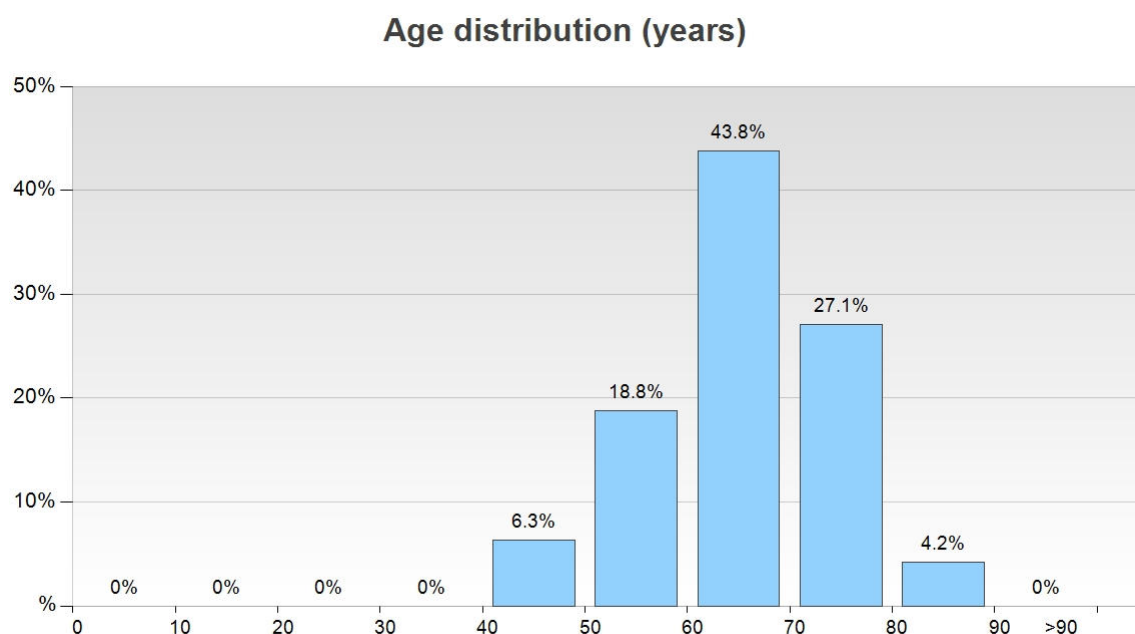
Atrial Fibrillation combined with Right Atrial Flutter

Periprocedural Complications	n
No complications	336
Pericardial Effusion	1
AV Fistula	1
High Degree or Complete AV Block	1
TIA	0
Transient AV Block	0
Arterial Occlusion	0
Death	0
Pneumothorax	0
Aortic Dissection	0
Valvular Lesions	0
Infection	0
Stroke	0
Pulmonary Embolism	0
Other	0
Hemothorax	0
Arterial Thrombosis	0
Pulmonary Oedema	0
Tamponade	0
Pseudoaneurysm	0
PV Stenosis	0
Myocardial Infarction	0
Inguinal Hematoma	0
Phrenic Nerve Paralysis	0

Left Atrial Flutter

Ablation of Left Atrial Flutter (LAFlu)	n
All interventions	108
LAFlu combined with others	60
LAFlu only	48

The following statistics include LAFlu only procedures



Age (years)	min.	Ø	max.
Female	60	68	81
Male	44	66	81
All	44	66	81

Number of patients	n	%
Females	13	27.08
Males	35	72.92
Total	48	

Left Atrial Flutter

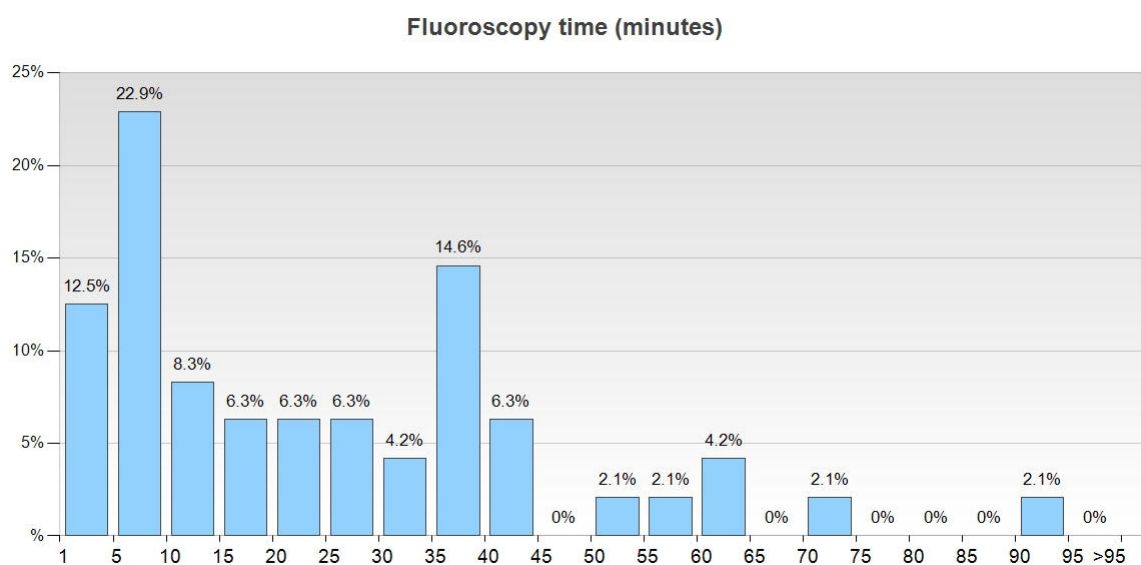
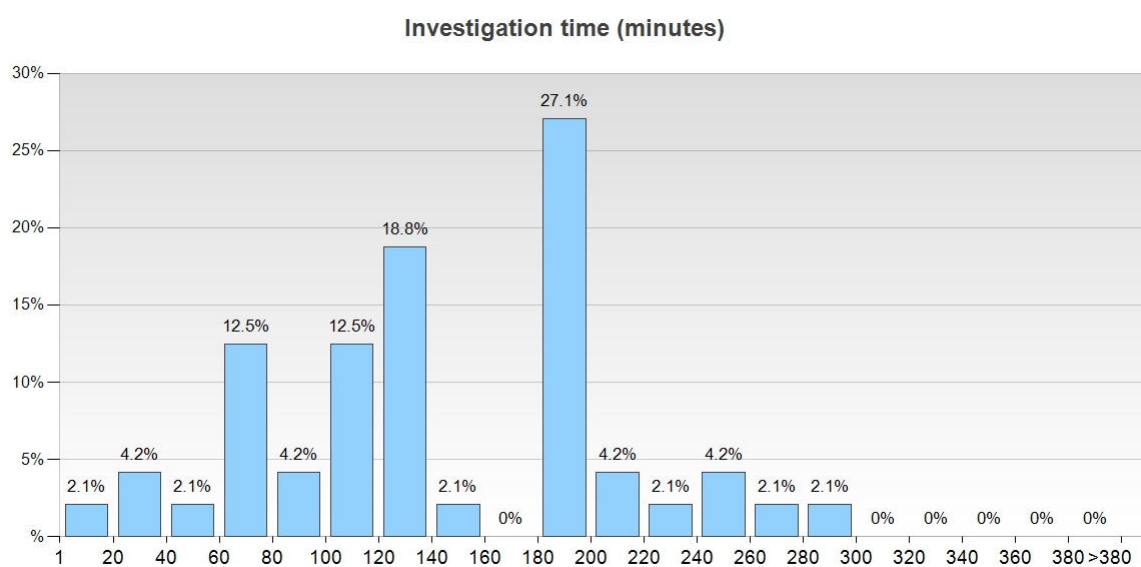
Cardiopathy (Underlying heart disease)	n	%
None	31	64.58
Ischemic	3	6.25
Tachycardiomyopathy	3	6.25
Valvular	3	6.25
Hypertensive Cardiomyopathy	3	6.25
Dilated	2	4.17
Other	1	2.08
Post Valvular Surgery	1	2.08
Angioplasty	1	2.08
Congenital	0	0
Early Repolarization Syndrome	0	0
Channelopathy short QT	0	0
Post Congenital Surgery	0	0
Infiltrative	0	0
CABG	0	0
Catecholaminergic Polymorphic VT	0	0
Brugada Syndrome	0	0
Channelopathy long QT	0	0
H(O)CM	0	0
RV Cardiomyopathy	0	0
Total	48	

Symptoms	n
Palpitations	40
Dyspnea	19
Fatigue	12
Dizziness	4
None	2
Other	1
Syncope	1
Angina Pectoris	0
SCD	0

Left Atrial Flutter

Anesthesia	n	%
Local	25	52.08
General	23	47.92
Total	48	

Minutes	min.	Ø	max.	n	n ₀ *
Investigation time	2	137.1	290	48	0
Fluoroscopy time	1	24.7	90	48	0



Left Atrial Flutter

Type of Flutter	n
Other	18
Perimitral	14
Roof-dependent	12
Peri Ostial Pulmonary Vein	11
Peri-Incisional	1

EHRA-Score	n	%
Score I	1	2.08
Score II	25	52.08
Score III	19	39.58
Score IV	3	6.25

Type of Intervention	n	%
Percutaneous	48	100
Hybrid (Epicardial + Endovascular)	0	0
Surgical Ablation	0	0

Intervention	n	%
Primary Intervention	20	41.67
Redo	28	58.33

Antiarrhythmic Drugs	n
Beta Blocker	33
Amiodarone	11
Calcium Antagonist	6
Other	4
Sotalol	3
Flecainide	2
None	1
Propafenone	1
Digitalis	0
Dronedarone	0

Left Atrial Flutter

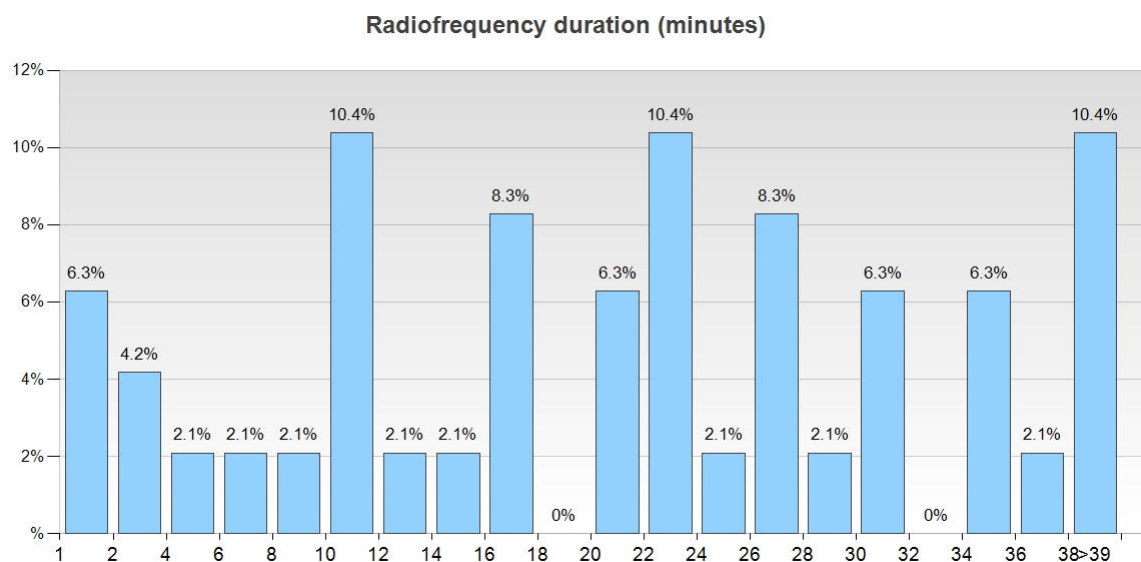
Thromboembolic Risk Factors	n
Hypertension	18
Congestive Heart Failure, LV dysfunction	6
Diabetes	1
Prior MI, Per. Artery Disease, Aortic Plaque	1
Stroke, TIA, Other Embolic Event	0

Anticoagulation, Antiaggregation	n
Factor Xa-Antagonist	29
Vitamin K-Antagonist	11
Other	4
Direct Thrombin Inhibitor	2
None	2
Clopidogrel	1
Aspirin	0
Prasugrel	0
Ticagrelor	0

CHA₂DS₂-VASc Score	n
Score = 0	10
Score = 1	12
Score = 2	16
Score = 3	9
Score = 4	0
Score = 5	1
Score = 6	0
Score = 7	0
Average Score	1.58

Left Atrial Flutter

Radiofrequency	min.	Ø	max.	n	n ₀ *
Duration (minutes)	1	23	84	45	3
Irrigated Technology				40	
RF Duty Cycled				0	



Left Atrial Flutter

Access	n	%
Trans-septal, Puncture	36	75
Other	8	16.67
Arterial	3	6.25
Trans-septal, PFO	1	2.08
Venous	0	0
Epicardial, Sub-xiphoid	0	0
Epicardial, Thoracotomy	0	0
Epicardial, Thoracoscopy	0	0
Epicardial, Coronary Sinus	0	0
Total	48	

Mapping	n	%
3D Mapping	38	79.17
Conventional	7	14.58
Other	1	2.08
Basket	1	2.08
Lasso	1	2.08
Non Contact	0	0
HD Mesh	0	0
Total	48	

Catheter Steering	n	%
Conventional	47	97.92
Other	1	2.08
Hansen	0	0
Stereotaxis	0	0
Total	48	

Results	n	%
Block confirmed	35	72.92
Block not confirmed	13	27.08

Left Atrial Flutter

Periprocedural Complications	n
No complications	47
Other	1
Stroke	0
High Degree or Complete AV Block	0
Pulmonary Embolism	0
Hemothorax	0
Arterial Thrombosis	0
Pulmonary Oedema	0
Tamponade	0
Pseudoaneurysm	0
PV Stenosis	0
Myocardial Infarction	0
Inguinal Hematoma	0
Phrenic Nerve Paralysis	0
TIA	0
Transient AV Block	0
Arterial Occlusion	0
Death	0
Pneumothorax	0
Aortic Dissection	0
Valvular Lesions	0
Pericardial Effusion	0
AV Fistula	0
Infection	0

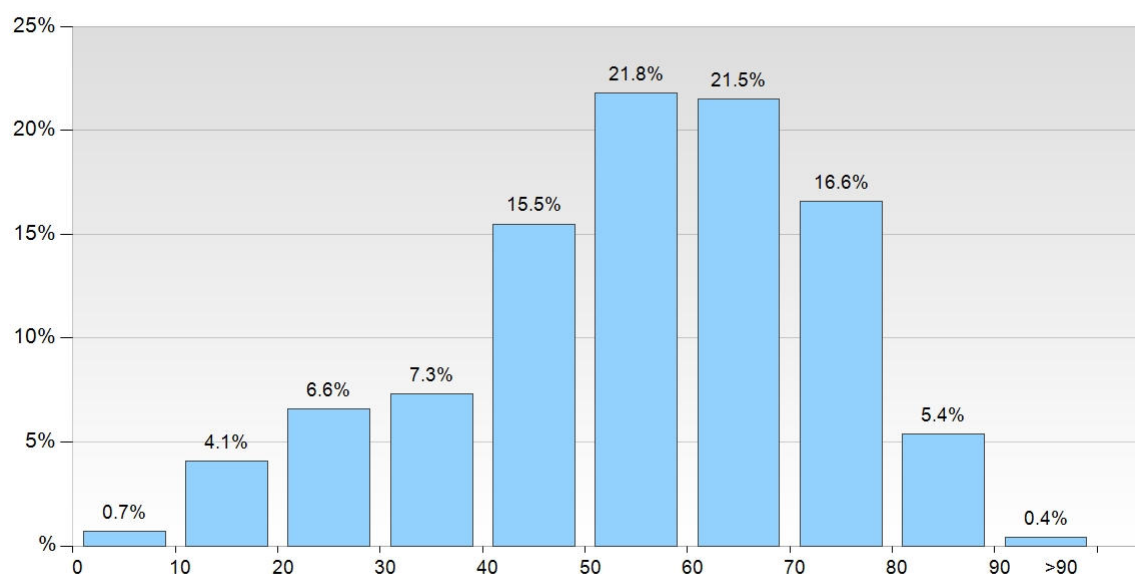
Atrioventricular Nodal Reentry Tachycardia (AVNRT)

Ablation of AVNRT

	n
All interventions	998
AVNRT combined with others	45
AVNRT only	953

The following statistics include AVNRT only procedures

Age distribution (years)



Age (years)	min.	Ø	max.
Female	6	53	95
Male	10	59	97
All	6	56	97

Number of patients	n	%
Females	513	53.83
Males	440	46.17
Total	953	

Atrioventricular Nodal Reentry Tachycardia (AVNRT)

Cardiopathy (Underlying heart disease)	n	%
None	819	85.94
Ischemic	47	4.93
Hypertensive Cardiomyopathy	35	3.67
Valvular	16	1.68
Other	13	1.36
Tachycardiomyopathy	5	0.52
H(O)CM	5	0.52
Congenital	3	0.31
Post Valvular Surgery	3	0.31
Angioplasty	3	0.31
Dilated	2	0.21
Post Congenital Surgery	1	0.1
Brugada Syndrome	1	0.1
Early Repolarization Syndrome	0	0
Channelopathy short QT	0	0
Infiltrative	0	0
CABG	0	0
Catecholaminergic Polymorphic VT	0	0
Channelopathy long QT	0	0
RV Cardiomyopathy	0	0
Total	953	

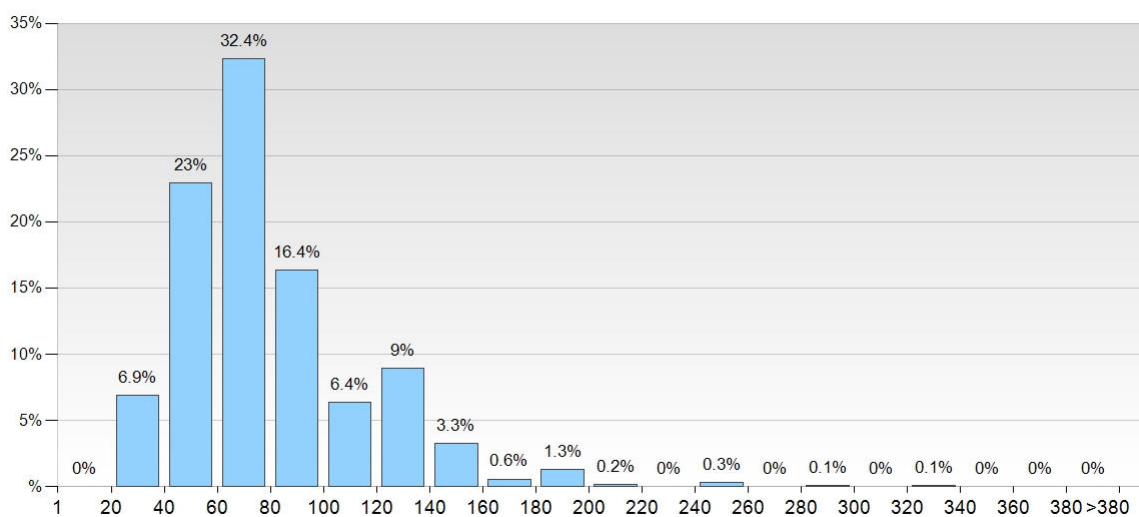
Symptoms	n
Palpitations	897
Dizziness	105
Dyspnea	75
Syncope	48
Fatigue	42
Angina Pectoris	21
Other	20
None	11
SCD	1

Atrioventricular Nodal Reentry Tachycardia (AVNRT)

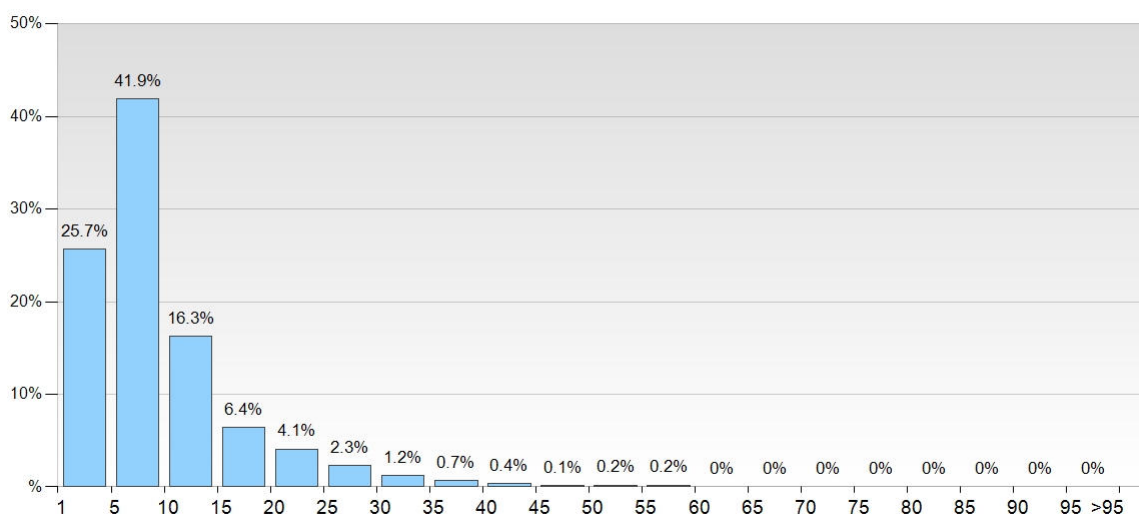
Anesthesia	n	%
Local	929	97.48
General	24	2.52
Total	953	

Minutes	min.	Ø	max.	n	n ₀ *
Investigation time	20	75.9	320	953	0
Fluoroscopy time	1	9.1	55	948	5

Investigation time (minutes)

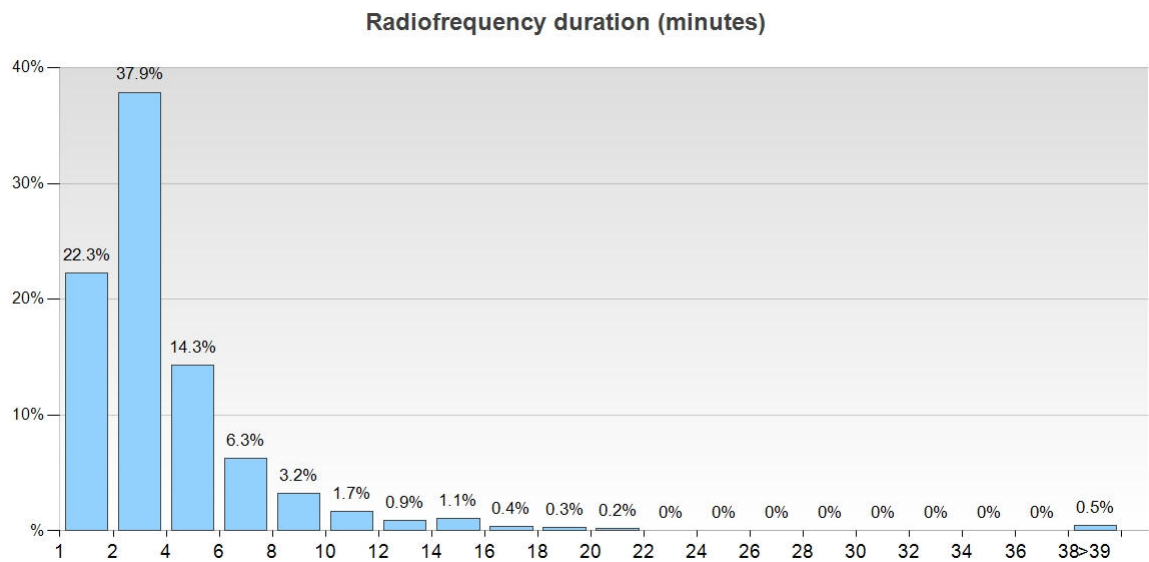


Fluoroscopy time (minutes)



Atrioventricular Nodal Reentry Tachycardia (AVNRT)

Radiofrequency	min.	Ø	max.	n	n ₀ *
Duration (minutes)	1	4.1	307	848	104
Irrigated Technology				47	



Atrioventricular Nodal Reentry Tachycardia (AVNRT)

Type	n
Slow-Fast	907
Fast-Slow	35
Slow-Slow	29

Intervention	n	%
Primary Intervention	906	95.07
Redo	47	4.93

Cryoablation	min.	Ø	max.	n	n ₀ *
Total Duration (minutes)	60	60	60	1	0

Mapping	n	%
Conventional	927	97.27
3D Mapping	25	2.62
Basket	1	0.1
Non Contact	0	0
HD Mesh	0	0
Lasso	0	0
Other	0	0
Total	953	

Catheter Steering	n	%
Conventional	948	99.48
Hansen	3	0.31
Other	2	0.21
Stereotaxis	0	0
Total	953	

Results	n	%
Success	941	98.74
No success	12	1.26

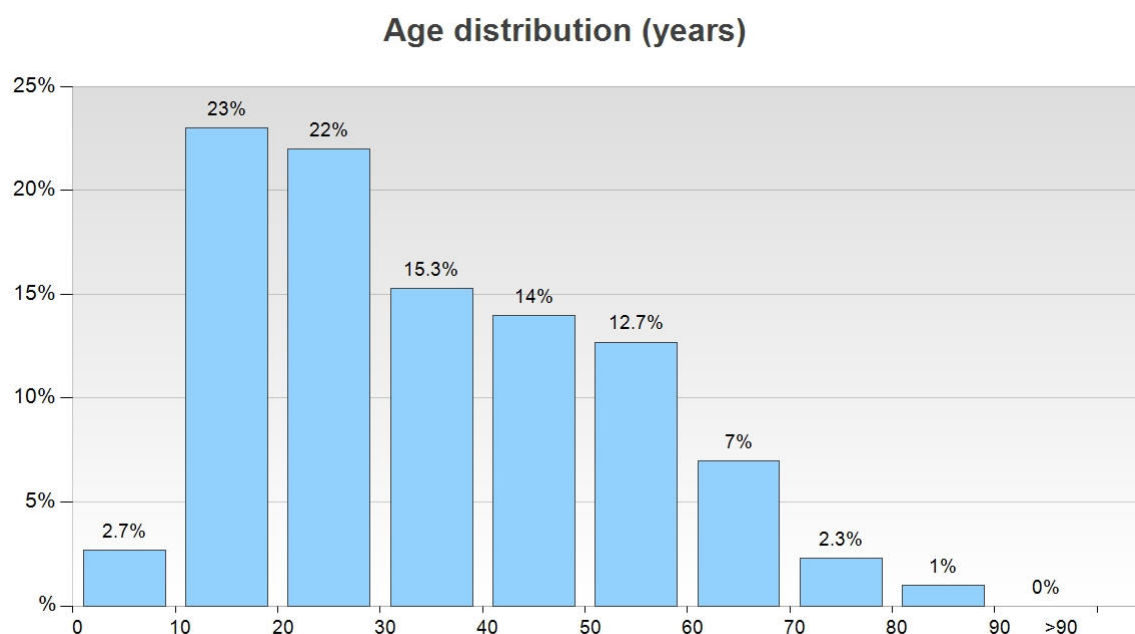
Atrioventricular Nodal Reentry Tachycardia (AVNRT)

Periprocedural Complications	n
No complications	940
Transient AV Block	6
High Degree or Complete AV Block	4
Pericardial Effusion	1
Other	1
Tamponade	1
Pseudoaneurysm	0
PV Stenosis	0
Myocardial Infarction	0
Inguinal Hematoma	0
Phrenic Nerve Paralysis	0
TIA	0
Arterial Occlusion	0
Death	0
Pneumothorax	0
Aortic Dissection	0
Valvular Lesions	0
AV Fistula	0
Infection	0
Stroke	0
Pulmonary Embolism	0
Hemothorax	0
Arterial Thrombosis	0
Pulmonary Oedema	0

Accessory Pathway

Ablation of Accessory Pathway (AP)		n
All interventions		311
AP combined with others		11
AP only		300

The following statistics include AP only procedures



Age (years)	min.	Ø	max.
Female	7	37	90
Male	5	34	81
All	5	35	90

Number of patients	n	%
Females	123	41
Males	177	59
Total	300	

Accessory Pathway

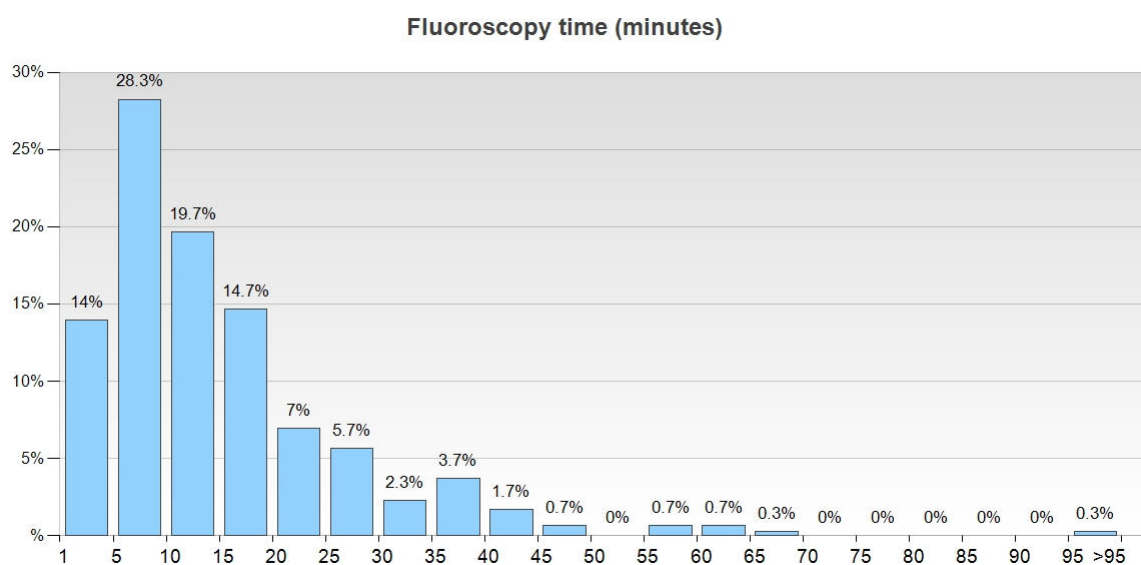
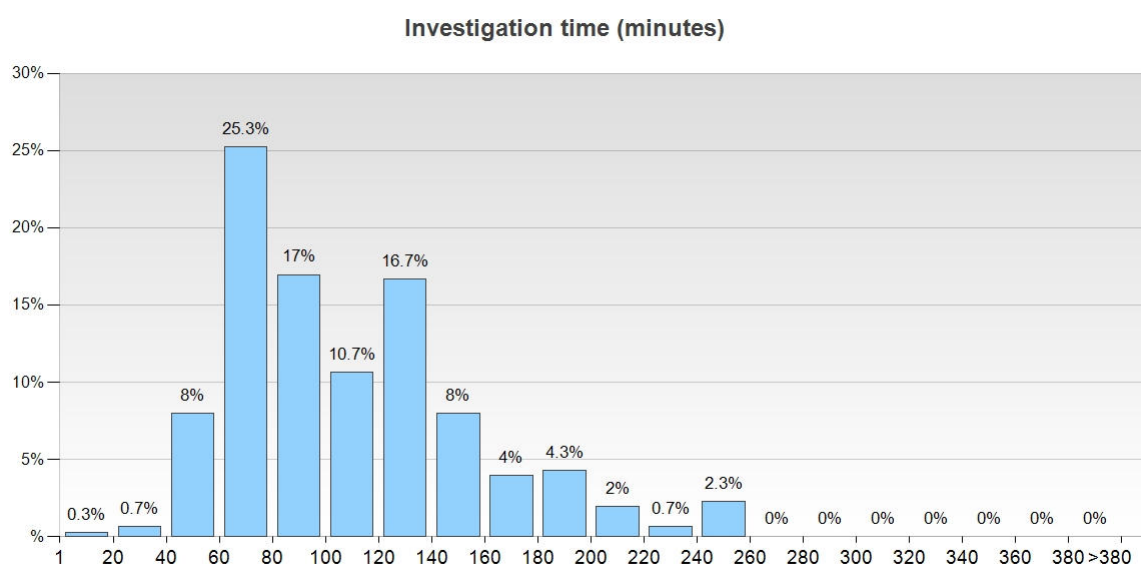
Cardiopathy (Underlying heart disease)	n	%
None	285	95
Ischemic	6	2
Other	4	1.33
Hypertensive Cardiomyopathy	2	0.67
H(O)CM	2	0.67
Tachycardiomyopathy	1	0.33
Congenital	0	0
Early Repolarization Syndrome	0	0
Channelopathy short QT	0	0
Post Congenital Surgery	0	0
Infiltrative	0	0
CABG	0	0
Dilated	0	0
Catecholaminergic Polymorphic VT	0	0
Valvular	0	0
Brugada Syndrome	0	0
Post Valvular Surgery	0	0
Channelopathy long QT	0	0
Angioplasty	0	0
RV Cardiomyopathy	0	0
Total	300	

Symptoms	n
Palpitations	254
None	30
Dizziness	29
Syncope	17
Dyspnea	11
Other	8
Fatigue	8
Angina Pectoris	5
SCD	0

Accessory Pathway

Anesthesia	n	%
Local	262	87.33
General	38	12.67
Total	300	

Minutes	min.	Ø	max.	n	n ₀ *
Investigation time	5	105	253	300	0
Fluoroscopy time	1	14.7	135	299	1



Accessory Pathway

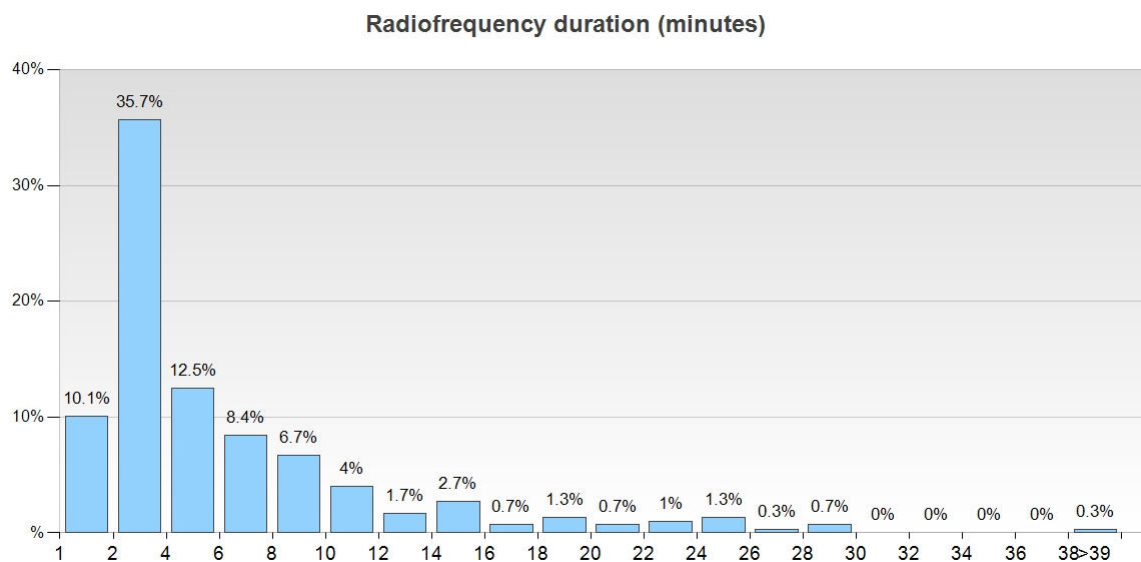
Type	n
WPW	185
Concealed	92
Asymptomatic Preexcitation	21
Other	5
PJRT	1
Mahaim	0
Atrio-Fascicular	0

Intervention	n	%
Primary Intervention	240	80
Redo	60	20

Site of Ablation	n
left	169
right	134
left: Free Wall	88
right: Posteroseptal	62
left: Posterior	44
left: Posteroseptal	44
right: Free Wall	23
right: Anteroseptal	14
right: Parahisian	14
right: Midseptal	11
right: Coronary Sinus Aneurysm	10
right: Posterior	3

Accessory Pathway

Radiofrequency	min.	Ø	max.	n	n ₀ *
Duration (minutes)	1	6	90	262	35
Irrigated Technology				113	



Accessory Pathway

Cryoablation	min.	Ø	max.	n	n₀*
Total Duration (minutes)	8	14.5	26	4	0

Access	n	%
Venous	151	50.33
Trans-septal, Puncture	103	34.33
Arterial	32	10.67
Trans-septal, PFO	13	4.33
Epicardial, Coronary Sinus	1	0.33
Epicardial, Sub-xiphoid	0	0
Epicardial, Thoracotomy	0	0
Other	0	0
Epicardial, Thoracoscopy	0	0
Total	300	

Mapping	n	%
Conventional	256	85.33
3D Mapping	44	14.67
Other	0	0
Non Contact	0	0
Basket	0	0
HD Mesh	0	0
Lasso	0	0
Total	300	

Catheter Steering	n	%
Conventional	298	99.33
Hansen	1	0.33
Other	1	0.33
Stereotaxis	0	0
Total	300	

Results	n	%
Success	278	92.67
No success	22	7.33

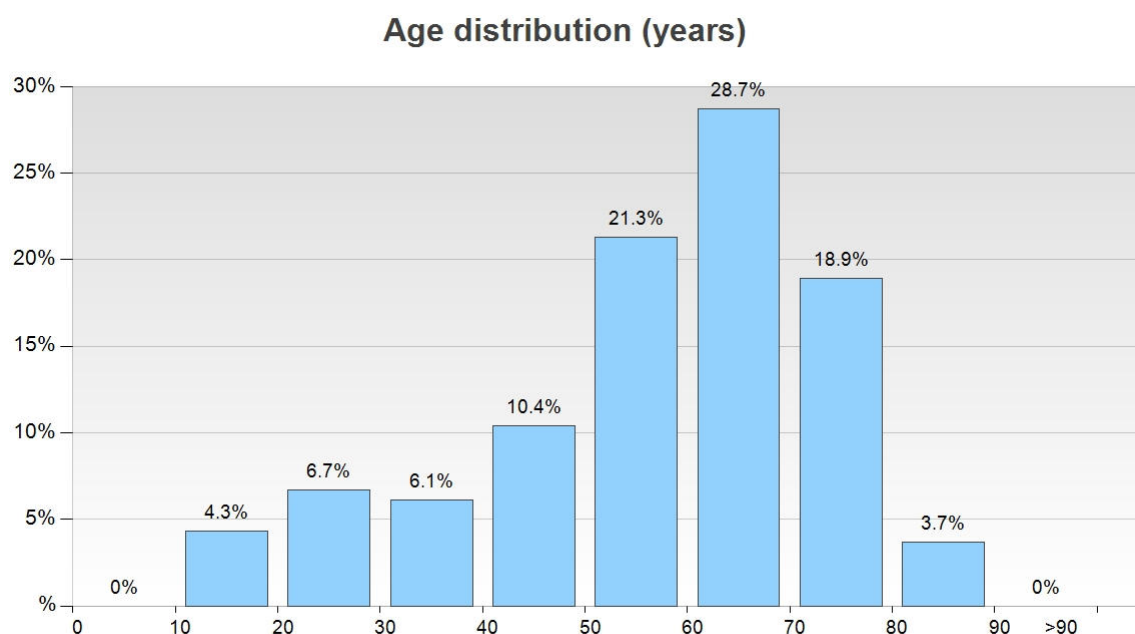
Accessory Pathway

Periprocedural Complications	n
No complications	297
Tamponade	2
TIA	1
Pseudoaneurysm	0
PV Stenosis	0
Myocardial Infarction	0
Inguinal Hematoma	0
Phrenic Nerve Paralysis	0
Transient AV Block	0
Arterial Occlusion	0
Death	0
Pneumothorax	0
Aortic Dissection	0
Valvular Lesions	0
Pericardial Effusion	0
AV Fistula	0
Infection	0
Stroke	0
High Degree or Complete AV Block	0
Pulmonary Embolism	0
Other	0
Hemothorax	0
Arterial Thrombosis	0
Pulmonary Oedema	0

Atrial Tachycardia

Ablation of Atrial Tachycardia (AT)		n
All interventions		228
AT combined with others		64
AT only		164

The following statistics include AT only procedures



Age (years)	min.	Ø	max.
Female	13	58	83
Male	15	56	82
All	13	57	83

Number of patients	n	%
Females	85	51.83
Males	79	48.17
Total	164	

Atrial Tachycardia

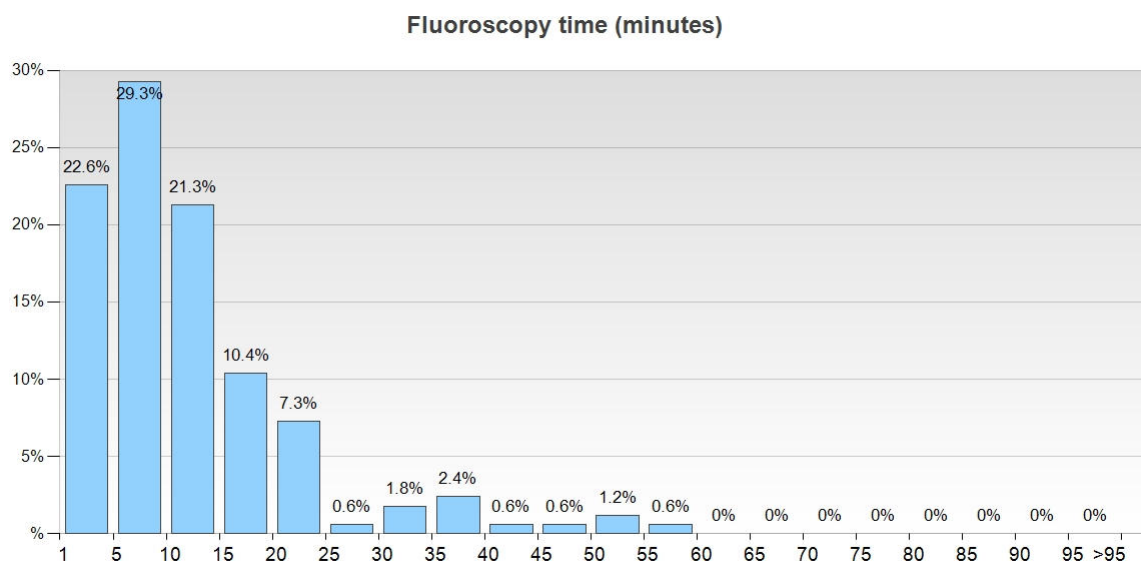
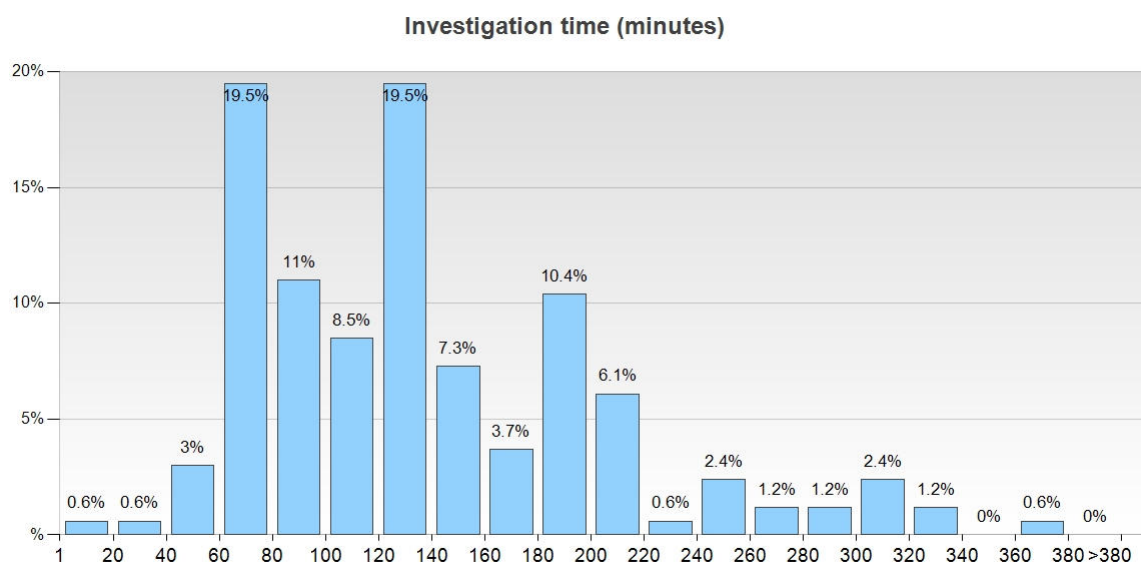
Cardiopathy (Underlying heart disease)	n	%
None	110	67.07
Hypertensive Cardiomyopathy	12	7.32
Congenital	11	6.71
Ischemic	11	6.71
Other	10	6.1
Dilated	4	2.44
Tachycardiomyopathy	2	1.22
H(O)CM	2	1.22
Post Congenital Surgery	1	0.61
Valvular	1	0.61
Early Repolarization Syndrome	0	0
Channelopathy short QT	0	0
Infiltrative	0	0
CABG	0	0
Catecholaminergic Polymorphic VT	0	0
Brugada Syndrome	0	0
Post Valvular Surgery	0	0
Channelopathy long QT	0	0
Angioplasty	0	0
RV Cardiomyopathy	0	0
Total	164	

Symptoms	n
Palpitations	144
Dizziness	25
Dyspnea	23
Fatigue	22
Syncope	6
Other	4
None	3
Angina Pectoris	3
SCD	0

Atrial Tachycardia

Anesthesia	n	%
Local	154	93.9
General	10	6.1
Total	164	

Minutes	min.	Ø	max.	n	n ₀ *
Investigation time	4	133.2	360	164	0
Fluoroscopy time	1	11.7	59	162	2



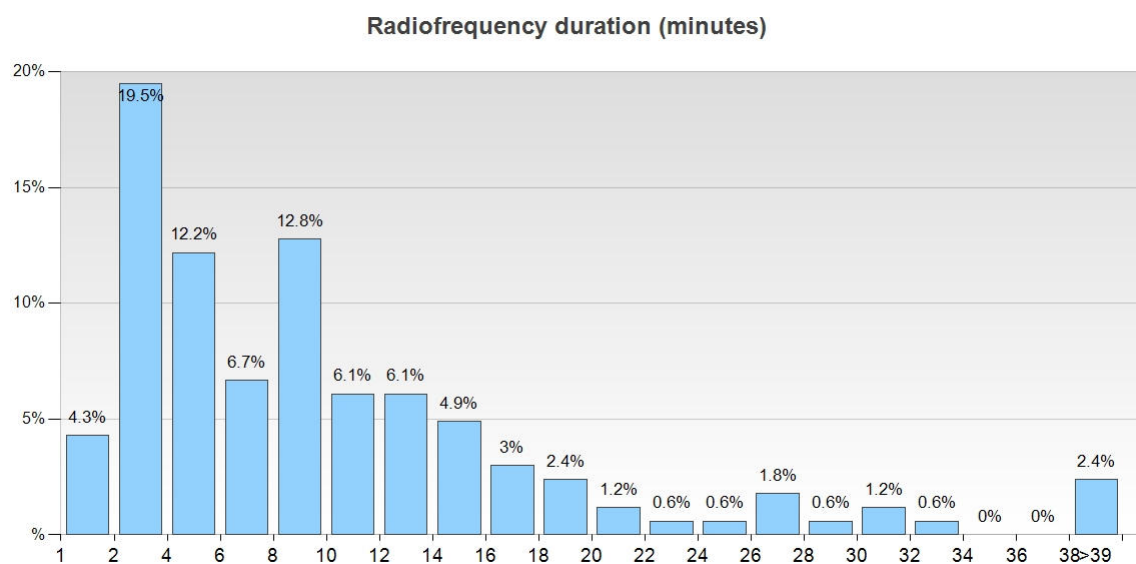
Atrial Tachycardia

Intervention	n	%
Primary Intervention	143	87.2
Redo	21	12.8

Site of Ablation	n
right	125
left	48
right: Crista Terminalis	37
right: Septal Right	36
right: Peritricuspid	35
right: Other Right	30
left: Other Left	20
left: Septal Left	12
left: Periostial PV	11
left: Perimitral	8
right: Right Appendage	7
left: Left Atrial Appendage	4

Atrial Tachycardia

Radiofrequency	min.	Ø	max.	n	n ₀ *
Duration (minutes)	1	9.8	56	143	21
Irrigated Technology				105	



Atrial Tachycardia

Access	n	%
Venous	124	75.61
Trans-septal, Puncture	35	21.34
Trans-septal, PFO	3	1.83
Arterial	1	0.61
Other	1	0.61
Epicardial, Coronary Sinus	0	0
Epicardial, Sub-xiphoid	0	0
Epicardial, Thoracotomy	0	0
Epicardial, Thoracoscopy	0	0
Total	164	

Mapping	n	%
3D Mapping	109	66.46
Conventional	50	30.49
Lasso	3	1.83
Non Contact	1	0.61
Basket	1	0.61
HD Mesh	0	0
Other	0	0
Total	164	

Catheter Steering	n	%
Conventional	160	97.56
Other	4	2.44
Hansen	0	0
Stereotaxis	0	0
Total	164	

Results	n	%
Success	140	85.37
No success	24	14.63

Atrial Tachycardia

Periprocedural Complications	n
No complications	163
Transient AV Block	1
Pseudoaneurysm	0
PV Stenosis	0
Myocardial Infarction	0
Inguinal Hematoma	0
Phrenic Nerve Paralysis	0
TIA	0
Arterial Occlusion	0
Death	0
Pneumothorax	0
Aortic Dissection	0
Valvular Lesions	0
Pericardial Effusion	0
AV Fistula	0
Infection	0
Stroke	0
High Degree or Complete AV Block	0
Pulmonary Embolism	0
Other	0
Hemothorax	0
Arterial Thrombosis	0
Pulmonary Oedema	0
Tamponade	0

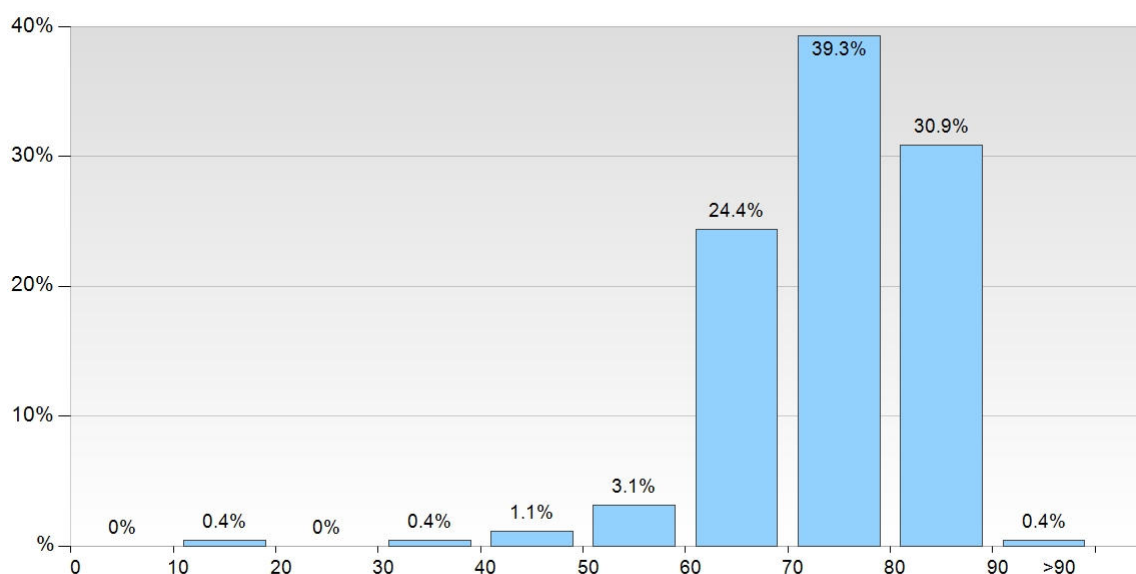
Atrioventricular Node (Rate Control in Atr. Fibrillation)

Ablation of AVN(R)

	n
All interventions	276
AVN(R) combined with others	14
AVN(R) only	262

The following statistics include AVN(R) only procedures

Age distribution (years)



Age (years)	min.	Ø	max.
Female	16	77	93
Male	37	73	90
All	16	75	93

Number of patients	n	%
Females	141	53.82
Males	121	46.18
Total	262	

Atrioventricular Node (Rate Control in Atr. Fibrillation)

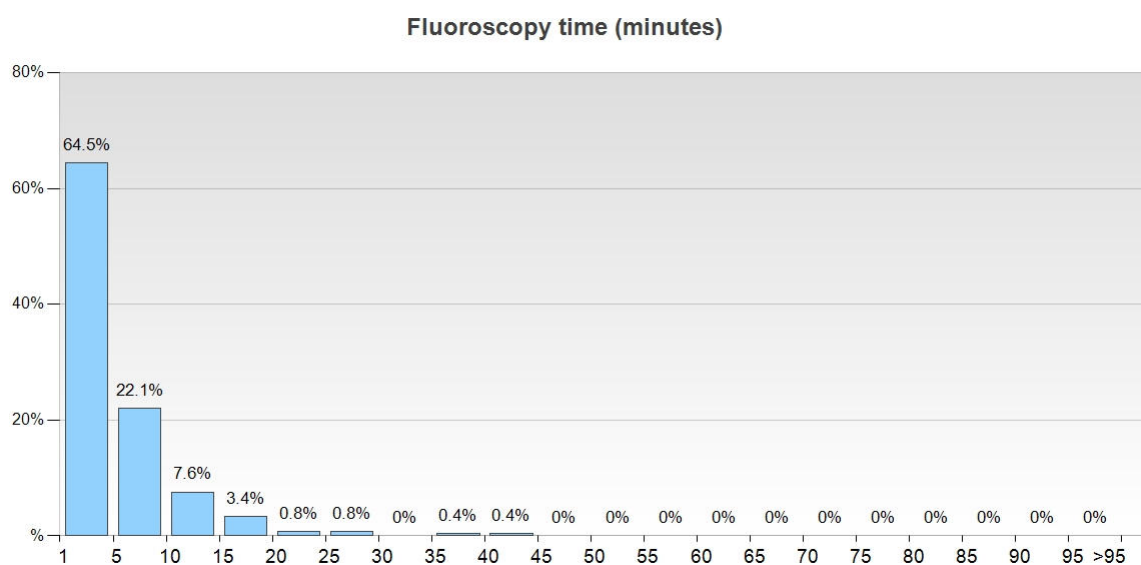
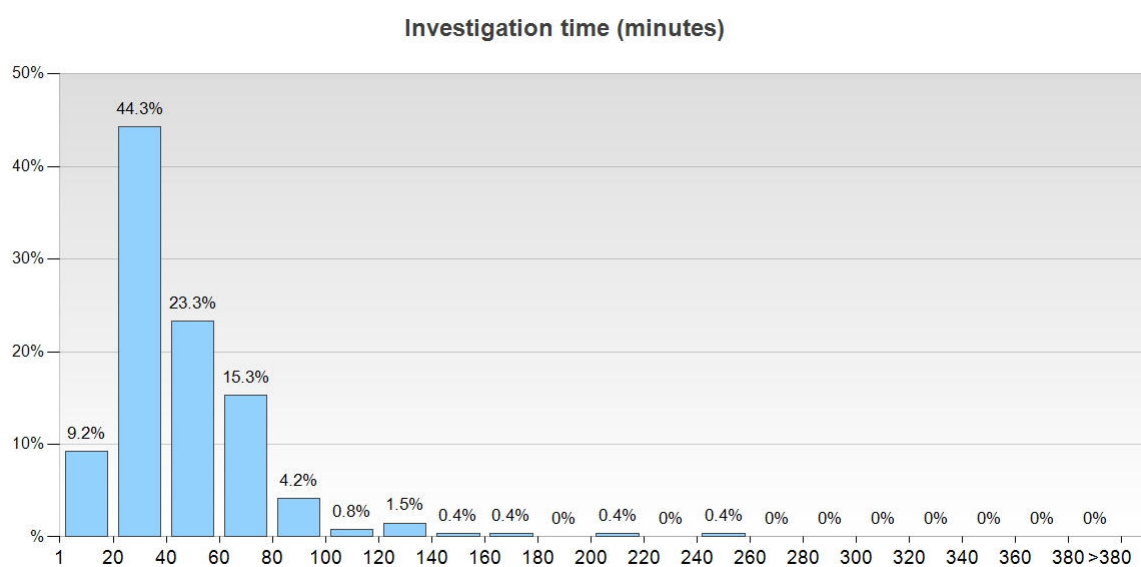
Cardiopathy (Underlying heart disease)	n	%
None	65	24.81
Tachycardiomyopathy	49	18.7
Hypertensive Cardiomyopathy	44	16.79
Ischemic	32	12.21
Dilated	20	7.63
Valvular	20	7.63
Other	11	4.2
H(O)CM	8	3.05
Post Valvular Surgery	4	1.53
Angioplasty	4	1.53
Congenital	3	1.15
Post Congenital Surgery	2	0.76
Catecholaminergic Polymorphic VT	0	0
Brugada Syndrome	0	0
Channelopathy long QT	0	0
RV Cardiomyopathy	0	0
Early Repolarization Syndrome	0	0
Channelopathy short QT	0	0
Infiltrative	0	0
CABG	0	0
Total	262	

Symptoms	n
Palpitations	184
Dyspnea	107
Fatigue	89
Dizziness	30
Other	21
Syncope	8
None	6
Angina Pectoris	4
SCD	1

Atrioventricular Node (Rate Control in Atr. Fibrillation)

Anesthesia	n	%
Local	259	98.85
General	3	1.15
Total	262	

Minutes	min.	Ø	max.	n	n ₀ *
Investigation time	10	42.8	240	262	0
Fluoroscopy time	1	4.9	40	262	0



Atrioventricular Node (Rate Control in Atr. Fibrillation)

Type of Fibrillation	n	%
Paroxysmal	72	27.48
Persistent	119	45.42
Long-standing Persistent (>1 Year)	71	27.1

EHRA-Score	n	%
Score I	25	9.54
Score II	70	26.72
Score III	137	52.29
Score IV	30	11.45

Intervention	n	%
Primary Intervention	224	85.5
Redo	20	7.63
Previous AF Abl. Procedure	18	6.87

Antiarrhythmic Drugs	n
Beta Blocker	188
Amiodarone	62
Calcium Antagonist	52
Digitalis	29
Other	19
None	18
Sotalol	10
Dronedarone	6
Flecainide	4
Propafenone	2

Atrioventricular Node (Rate Control in Atr. Fibrillation)

Thromboembolic Risk Factors	n
Hypertension	140
Congestive Heart Failure, LV dysfunction	63
Prior MI, Per. Artery Disease, Aortic Plaque	24
Diabetes	20
Stroke, TIA, Pther Embolic Event	14

Anticoagulation, Antiaggregation	n
Vitamin K-Antagonist	133
Factor Xa-Antagonist	75
Other	26
Direct Thrombin Inhibitor	20
Aspirin	11
None	4
Clopidogrel	2
Ticagrelor	0
Prasugrel	0

CHA₂DS₂-VASc Score	n
Score = 0	7
Score = 1	23
Score = 2	61
Score = 3	82
Score = 4	57
Score = 5	25
Score = 6	5
Score = 7	2
Average Score	3.01

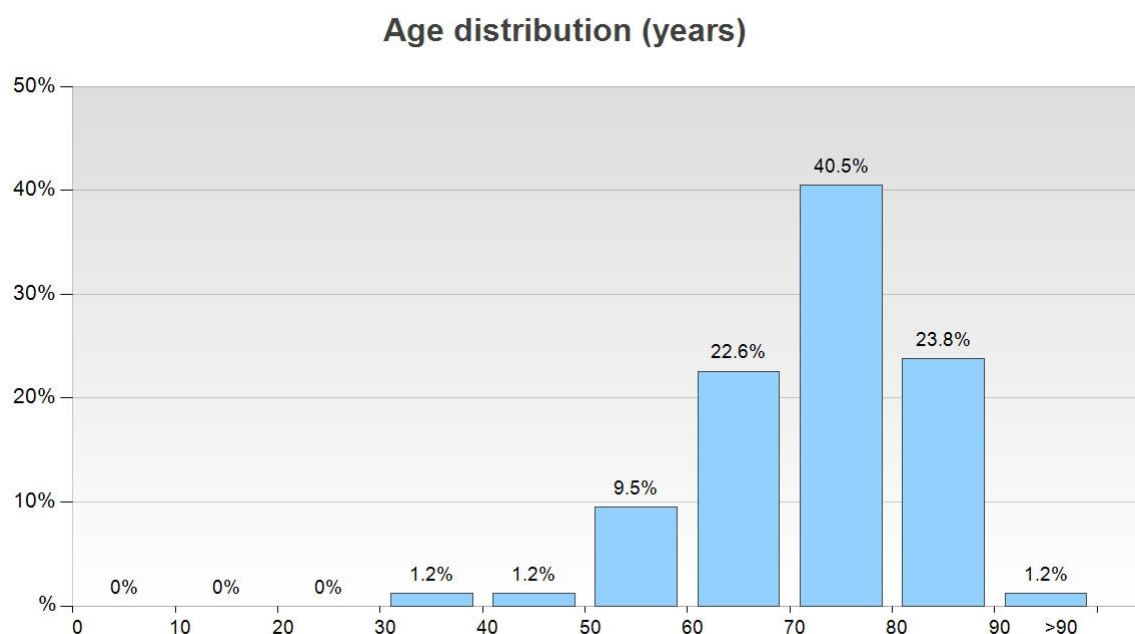
Atrioventricular Node (Rate Control in Atr. Fibrillation)

Periprocedural Complications	n
No complications	261
Inguinal Hematoma	1
Pericardial Effusion	0
AV Fistula	0
Infection	0
Stroke	0
High Degree or Complete AV Block	0
Pulmonary Embolism	0
Other	0
Hemothorax	0
Arterial Thrombosis	0
Pulmonary Oedema	0
Tamponade	0
Pseudoaneurysm	0
PV Stenosis	0
Myocardial Infarction	0
Phrenic Nerve Paralysis	0
TIA	0
Transient AV Block	0
Arterial Occlusion	0
Death	0
Pneumothorax	0
Aortic Dissection	0
Valvular Lesions	0

Atrioventricular Node (to resynchronisation)

Ablation of AVN	n
All interventions	97
AVN combined with others	13
AVN only	84

The following statistics include AVN only procedures



Age (years)	min.	Ø	max.
Female	39	76	91
Male	54	73	89
All	39	74	91

Number of patients	n	%
Females	22	26.19
Males	62	73.81
Total	84	

Atrioventricular Node (to resynchronisation)

Cardiopathy (Underlying heart disease)	n	%
Ischemic	25	29.76
Dilated	19	22.62
Tachycardiomyopathy	13	15.48
Valvular	6	7.14
Post Valvular Surgery	5	5.95
Hypertensive Cardiomyopathy	4	4.76
None	3	3.57
H(O)CM	3	3.57
Congenital	3	3.57
Other	2	2.38
Channelopathy long QT	1	1.19
Catecholaminergic Polymorphic VT	0	0
Brugada Syndrome	0	0
Angioplasty	0	0
RV Cardiomyopathy	0	0
Early Repolarization Syndrome	0	0
Channelopathy short QT	0	0
Post Congenital Surgery	0	0
Infiltrative	0	0
CABG	0	0
Total	84	

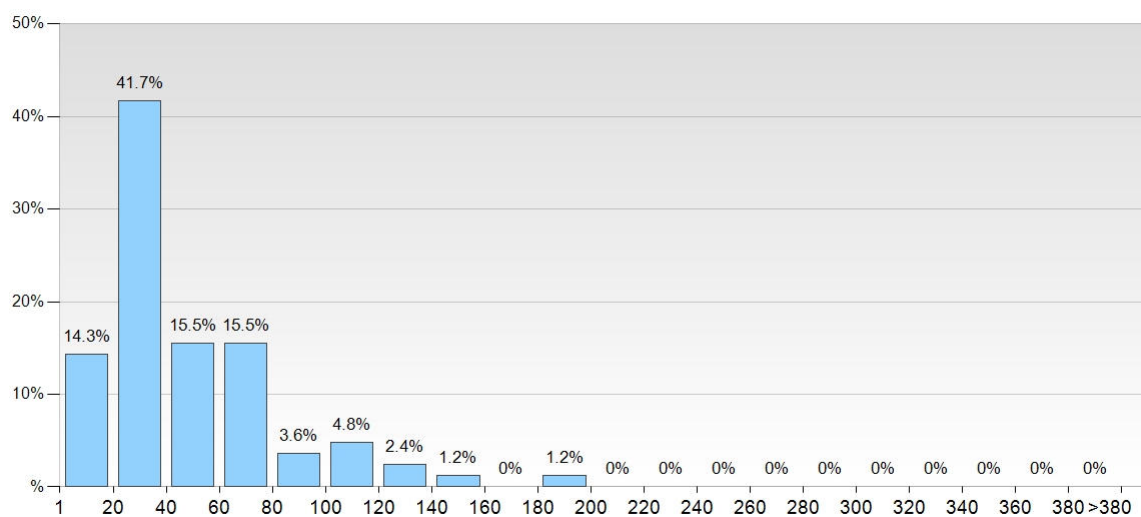
Symptoms	n
Dyspnea	53
Palpitations	42
Fatigue	35
Dizziness	10
Other	5
Angina Pectoris	2
Syncope	2
None	1
SCD	1

Atrioventricular Node (to resynchronisation)

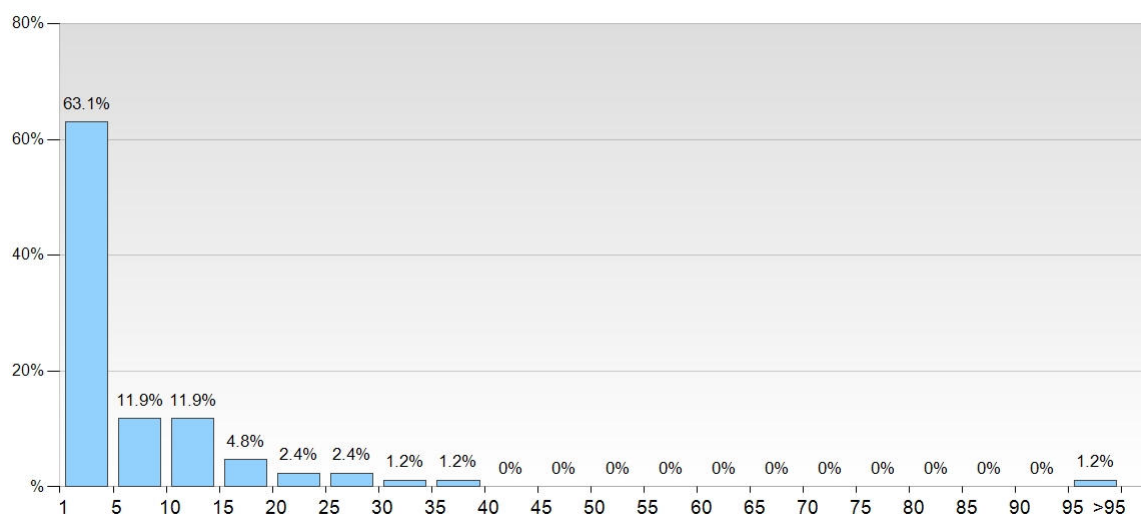
Anesthesia	n	%
Local	82	97.62
General	2	2.38
Total	84	

Minutes	min.	Ø	max.	n	n ₀ *
Investigation time	3	45.6	180	84	0
Fluoroscopy time	1	7.3	96	84	0

Investigation time (minutes)



Fluoroscopy time (minutes)



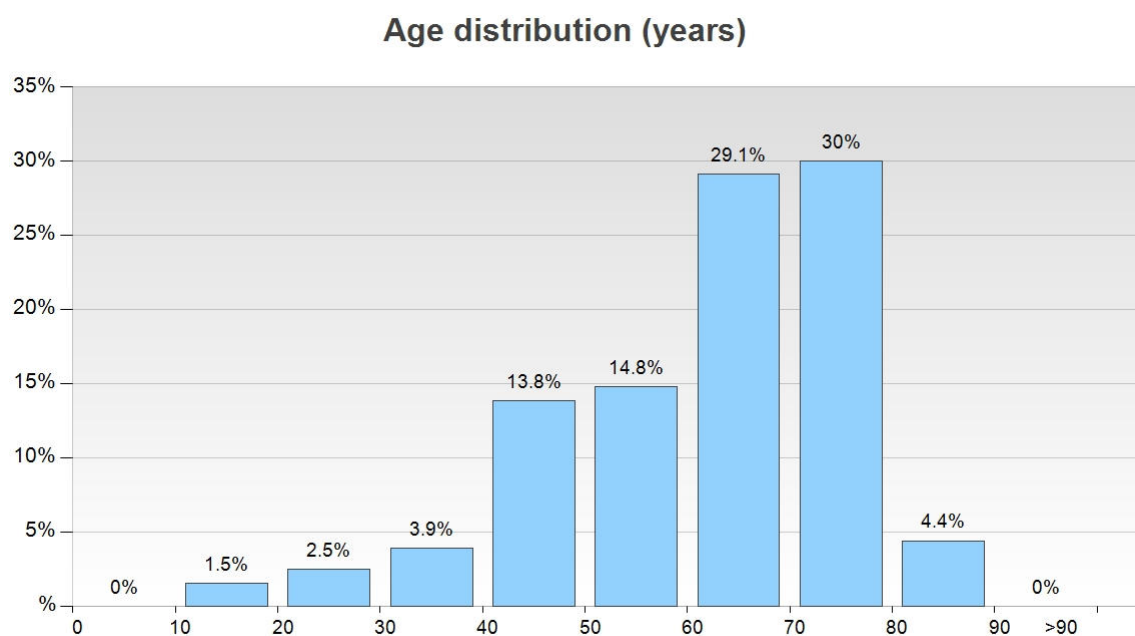
Atrioventricular Node (to resynchronisation)

Periprocedural Complications	n
No complications	83
Transient AV Block	1
Stroke	0
High Degree or Complete AV Block	0
Pulmonary Embolism	0
Other	0
Hemothorax	0
Arterial Thrombosis	0
Pulmonary Oedema	0
Tamponade	0
Pseudoaneurysm	0
PV Stenosis	0
Myocardial Infarction	0
Inguinal Hematoma	0
Phrenic Nerve Paralysis	0
TIA	0
Arterial Occlusion	0
Death	0
Pneumothorax	0
Aortic Dissection	0
Valvular Lesions	0
Pericardial Effusion	0
AV Fistula	0
Infection	0

Ventricular Tachycardia

Ablation of Ventricular Tachycardia (VT)		n
All interventions		207
VT combined with others		4
VT only		203

The following statistics include VT only procedures



Age (years)	min.	Ø	max.
Female	20	57	82
Male	20	64	87
All	20	62	87

Number of patients	n	%
Females	42	20.69
Males	161	79.31
Total	203	

Ventricular Tachycardia

Cardiopathy (Underlying heart disease)	n	%
Ischemic	92	45.32
None	57	28.08
Dilated	25	12.32
Other	7	3.45
Hypertensive Cardiomyopathy	4	1.97
Tachycardiomyopathy	4	1.97
Angioplasty	3	1.48
Infiltrative	3	1.48
Valvular	2	0.99
H(O)CM	2	0.99
RV Cardiomyopathy	2	0.99
Congenital	2	0.99
Catecholaminergic Polymorphic VT	0	0
Brugada Syndrome	0	0
Post Valvular Surgery	0	0
Channelopathy long QT	0	0
Early Repolarization Syndrome	0	0
Channelopathy short QT	0	0
Post Congenital Surgery	0	0
CABG	0	0
Total	203	

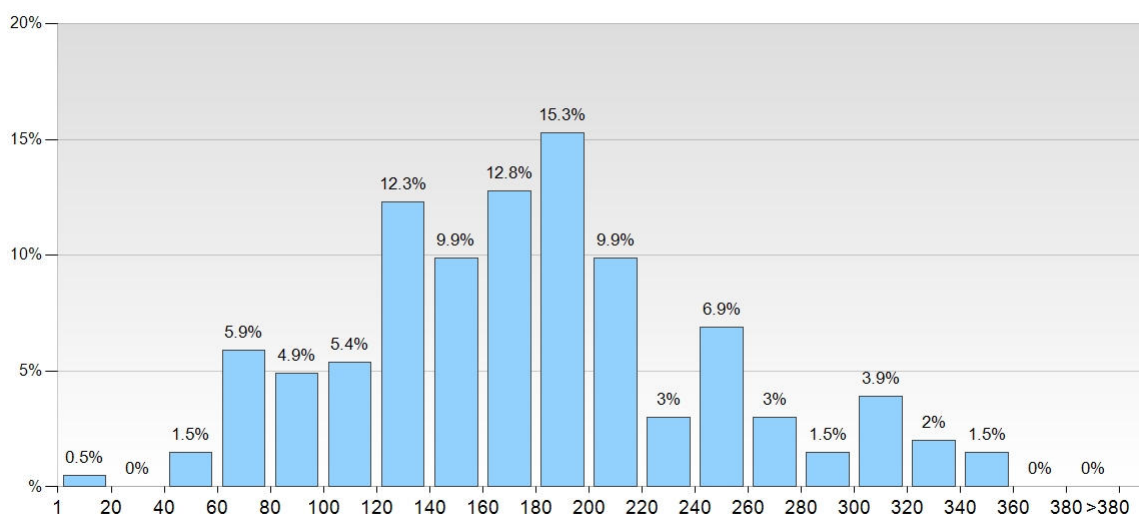
Symptoms	n
Palpitations	151
Dizziness	37
Syncope	34
Dyspnea	34
Other	26
Fatigue	19
None	10
Angina Pectoris	9
SCD	8

Ventricular Tachycardia

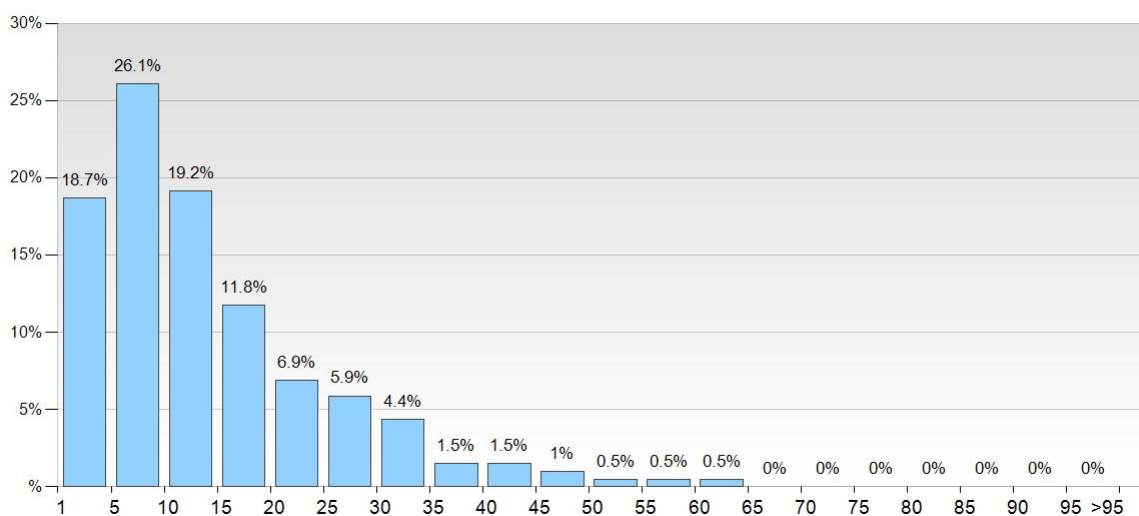
Anesthesia	n	%
Local	167	82.27
General	36	17.73
Total	203	

Minutes	min.	Ø	max.	n	n ₀ *
Investigation time	3	173.7	353	203	0
Fluoroscopy time	1	13.7	63	200	3

Investigation time (minutes)



Fluoroscopy time (minutes)



Ventricular Tachycardia

Type	n
Monomorphic	157
Ischemic	60
Polymorphic	19

Location	n
Other	66
RVOT	50
Left Fascicular VT	19
LVOT / Aortic Cusp	15
Epicardial	9
BB Reentry	2

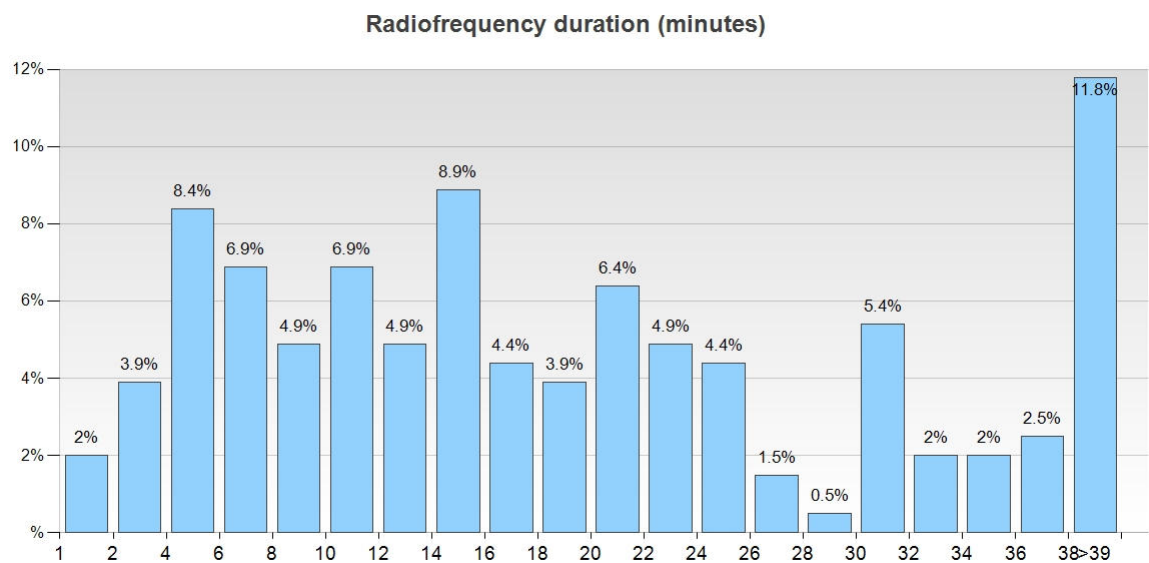
Intervention	n	%
Primary Intervention	162	79.8
Redo	41	20.2

Antiarrhythmic Drugs	n
Beta Blocker	137
Amiodarone	80
None	35
Calcium Antagonist	12
Other	12
Sotalol	8
Flecainide	4
Propafenone	0

Ventricular Tachycardia

Radiofrequency	min.	Ø	max.	n	n ₀ *
Duration (minutes)	1	21.6	360	197	6
Irrigated Technology				185	

Number of Induced VT: 261



Ventricular Tachycardia

Access	n	%
Trans-septal, Puncture	75	36.95
Venous	65	32.02
Arterial	53	26.11
Epicardial, Sub-xiphoid	7	3.45
Trans-septal, PFO	2	0.99
Epicardial, Thoracoscopy	1	0.49
Epicardial, Thoracotomy	0	0
Other	0	0
Epicardial, Coronary Sinus	0	0
Total	203	

Mapping	n	%
3D Mapping	179	88.18
Conventional	23	11.33
Lasso	1	0.49
Other	0	0
Non Contact	0	0
Basket	0	0
HD Mesh	0	0
Total	203	

Catheter Steering	n	%
Conventional	173	85.22
Stereotaxis	28	13.79
Other	2	0.99
Hansen	0	0
Total	203	

Results	n	%
All Induces VT Ablated	93	45.81
Target VT Ablated	91	44.83
Failure	19	9.36

Ventricular Tachycardia

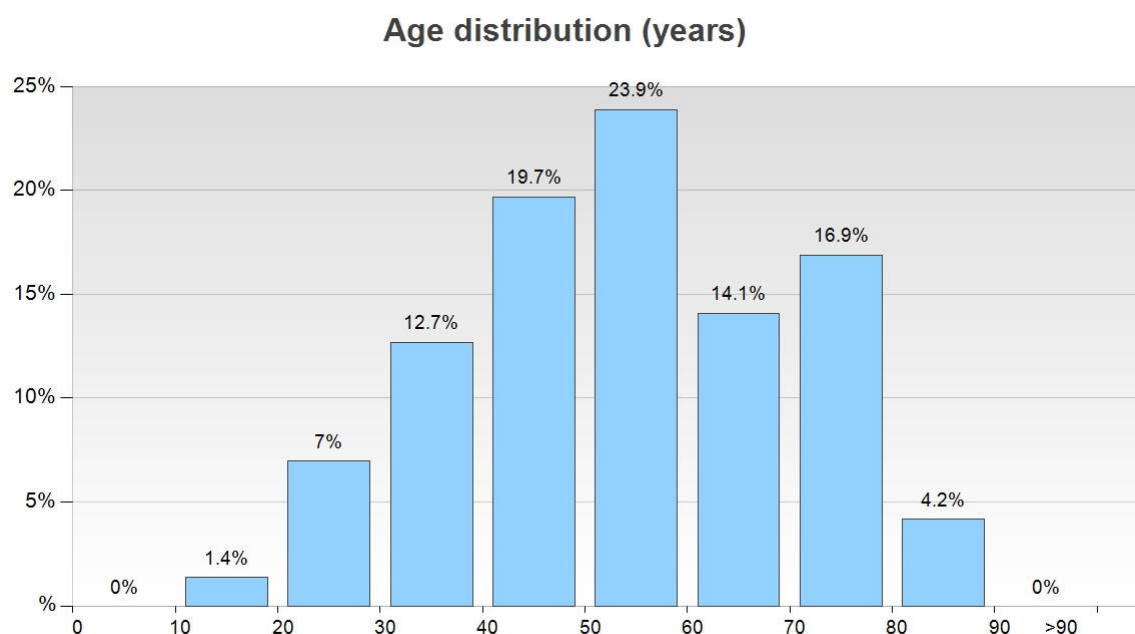
Periprocedural Complications	n
No complications	198
Tamponade	2
High Degree or Complete AV Block	1
Inguinal Hematoma	1
Transient AV Block	1
Pneumothorax	0
Aortic Dissection	0
Valvular Lesions	0
Pericardial Effusion	0
AV Fistula	0
Infection	0
Stroke	0
Pulmonary Embolism	0
Other	0
Hemothorax	0
Arterial Thrombosis	0
Pulmonary Oedema	0
Pseudoaneurysm	0
PV Stenosis	0
Myocardial Infarction	0
Phrenic Nerve Paralysis	0
TIA	0
Arterial Occlusion	0
Death	0

Premature Ventricular Contraction

Ablation of PVC

	n
All interventions	147
PVC combined with others	5
PVC only	142

The following statistics include PVC only procedures



Age (years)	min.	Ø	max.
Female	16	49	84
Male	18	59	82
All	16	54	84

Number of patients	n	%
Females	67	47.18
Males	75	52.82
Total	142	

Premature Ventricular Contraction

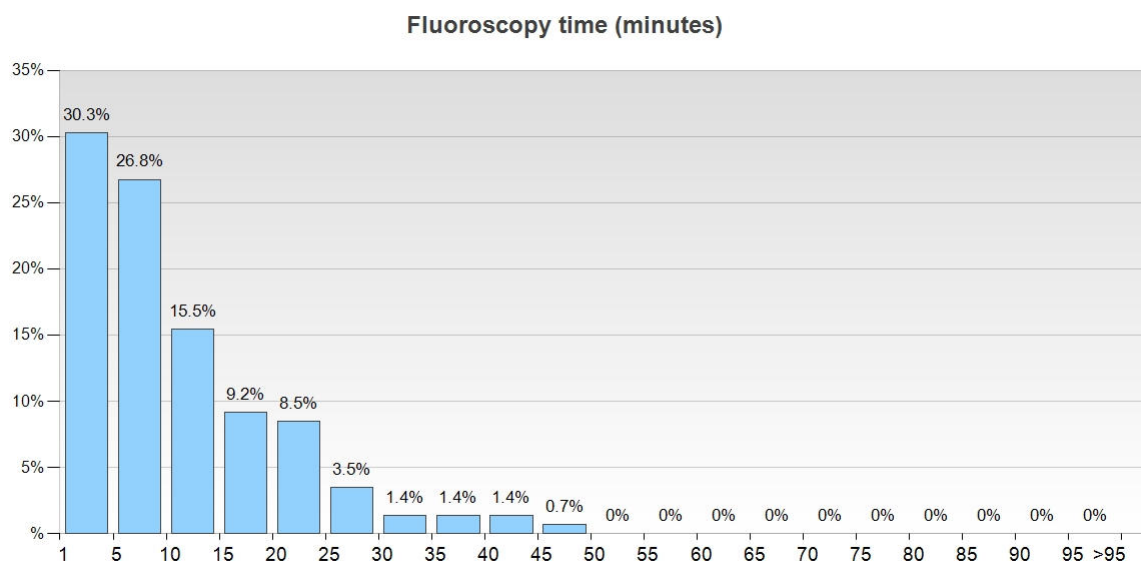
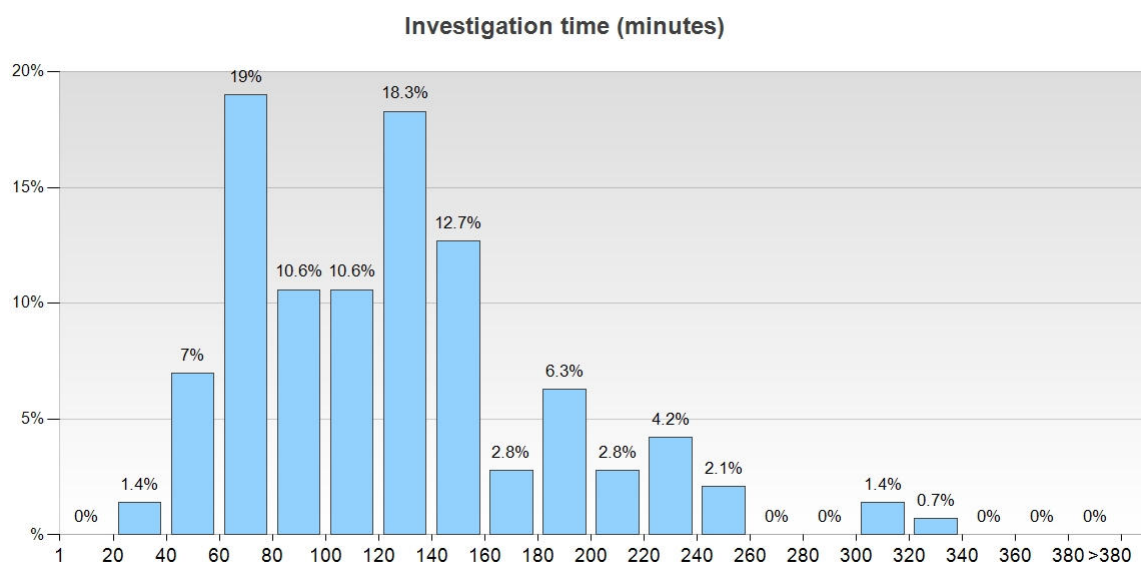
Cardiopathy (Underlying heart disease)	n	%
None	92	64.79
Ischemic	11	7.75
Dilated	10	7.04
Other	8	5.63
Valvular	5	3.52
Hypertensive Cardiomyopathy	5	3.52
Tachycardiomyopathy	4	2.82
Angioplasty	2	1.41
Congenital	2	1.41
Post Valvular Surgery	1	0.7
RV Cardiomyopathy	1	0.7
Infiltrative	1	0.7
Catecholaminergic Polymorphic VT	0	0
Brugada Syndrome	0	0
Channelopathy long QT	0	0
H(O)CM	0	0
Early Repolarization Syndrome	0	0
Channelopathy short QT	0	0
Post Congenital Surgery	0	0
CABG	0	0
Total	142	

Symptoms	n
Palpitations	101
Dyspnea	24
Fatigue	21
Other	13
None	8
Dizziness	8
Syncope	7
Angina Pectoris	1
SCD	1

Premature Ventricular Contraction

Anesthesia	n	%
Local	134	94.37
General	8	5.63
Total	142	

Minutes	min.	Ø	max.	n	n ₀ *
Investigation time	30	121.4	320	142	0
Fluoroscopy time	1	10.7	47	140	2



Premature Ventricular Contraction

Type	n
Monomorphic	117
Polymorphic	14
Ischemic	1

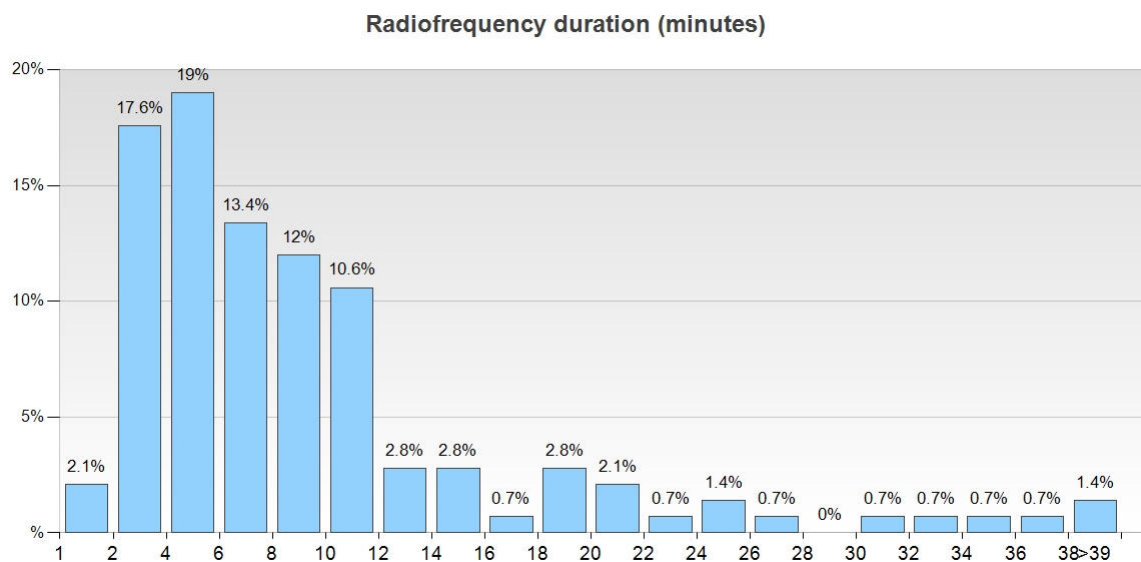
Location	n
RVOT	66
LVOT / Aortic Cusp	41
Other	23
Left Fascicular PVC	4
HP System	2

Site of Ablation	n
Right Ventricle	79
Left Ventricle	71

Intervention	n	%
Primary Intervention	130	91.55
Redo	12	8.45

Premature Ventricular Contraction

Radiofrequency	min.	Ø	max.	n	n ₀ *
Duration (minutes)	1	9.1	52	132	10
Irrigated Technology				120	



Premature Ventricular Contraction

Access	n	%
Venous	81	57.04
Arterial	48	33.8
Trans-septal, Puncture	10	7.04
Trans-septal, PFO	2	1.41
Epicardial, Coronary Sinus	1	0.7
Epicardial, Sub-xiphoid	0	0
Epicardial, Thoracotomy	0	0
Other	0	0
Epicardial, Thoracoscopy	0	0
Total	142	

Mapping	n	%
3D Mapping	103	72.54
Conventional	38	26.76
Non Contact	1	0.7
Other	0	0
Basket	0	0
HD Mesh	0	0
Lasso	0	0
Total	142	

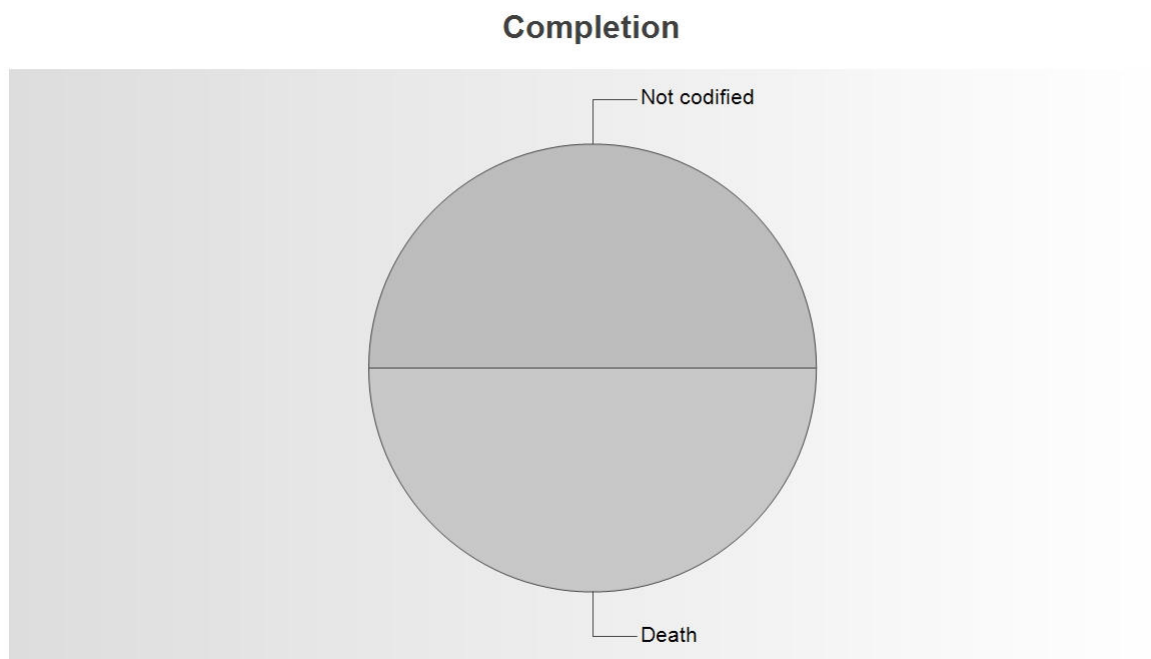
Catheter Steering	n	%
Conventional	136	95.77
Stereotaxis	5	3.52
Other	1	0.7
Hansen	0	0
Total	142	

Results	n	%
Success	123	86.62
No Success	19	13.38

Premature Ventricular Contraction

Periprocedural Complications	n
No complications	134
Inguinal Hematoma	4
Tamponade	2
High Degree or Complete AV Block	1
Other	1
Pseudoaneurysm	0
PV Stenosis	0
Myocardial Infarction	0
Phrenic Nerve Paralysis	0
TIA	0
Transient AV Block	0
Arterial Occlusion	0
Death	0
Pneumothorax	0
Aortic Dissection	0
Valvular Lesions	0
Pericardial Effusion	0
AV Fistula	0
Infection	0
Stroke	0
Pulmonary Embolism	0
Hemothorax	0
Arterial Thrombosis	0
Pulmonary Oedema	0

Completion



Cause of completion	n	%
Not codified	1	50
Death	1	50
Regular End of Follow-Up	0	0
Change from Rhythm Control to Rate Control	0	0
Lost to Follow-Up	0	0
Total	2	

The statistics are based on the data from CHPACE WEB from 01.01.2015 to 31.12.2015. Its completeness and correctness depends on the complete and correct data entry in the respective hospital. EPS are counted as interventions.

0.1% incomplete records are not included in these statistics.

n₀*: Investigations were reported with 0 minutes and are not included in these statistics.

Ø depicts the arithmetic mean.

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Abbreviations

AF = Atrial Fibrillation
RAFlu = Right Atrial Flutter
LAFlu = Left Atrial Flutter
AT = Atrial Tachycardia
AP = Accessory Pathway
AVNRT = Atrioventricular Nodal Reentry Tachycardia
VT = Ventricular Tachycardia
PVC = Premature Ventricular Contraction
AVN = Atrioventricular Node (to resynchronisation)
AVN(R) = Atrioventricular Node (Rate Control in Atr. Fibrillation)
Other = Other Arrhythmia

The cover picture shows a steerable ablation catheter from the late 90s