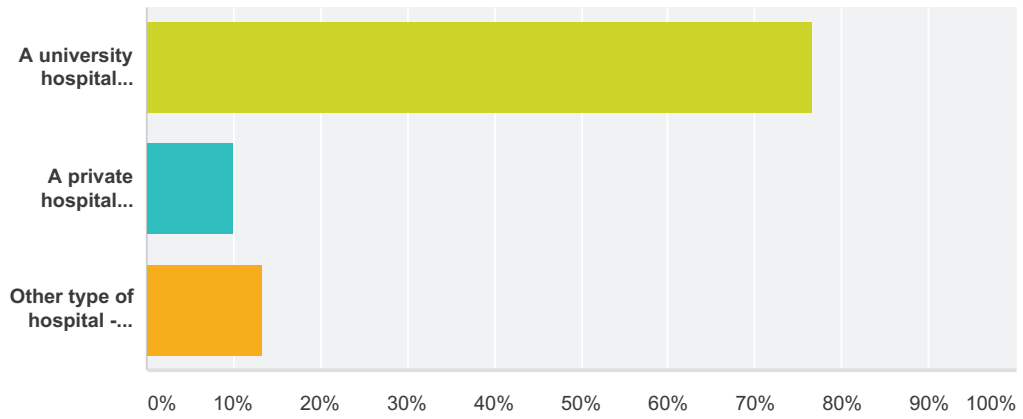


EP wire on Current ablation techniques for persistent atrial fibrillation in Europe

Q1 Is your institution:

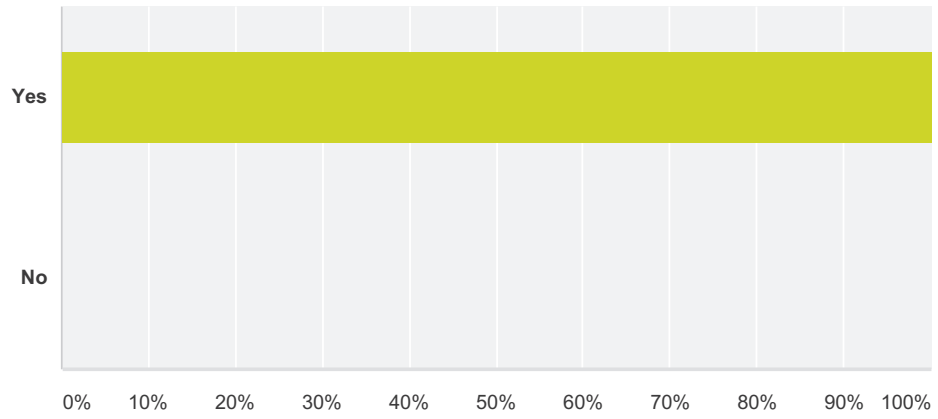
Answered: 30 Skipped: 0



Answer Choices	Responses	
A university hospital (academic)	76.67%	23
A private hospital (non-academic)	10.00%	3
Other type of hospital - Institution name:	13.33%	4
Total		30

Q4 Would you be comfortable if we acknowledge your center in the EP Europace Journal and on the Website?

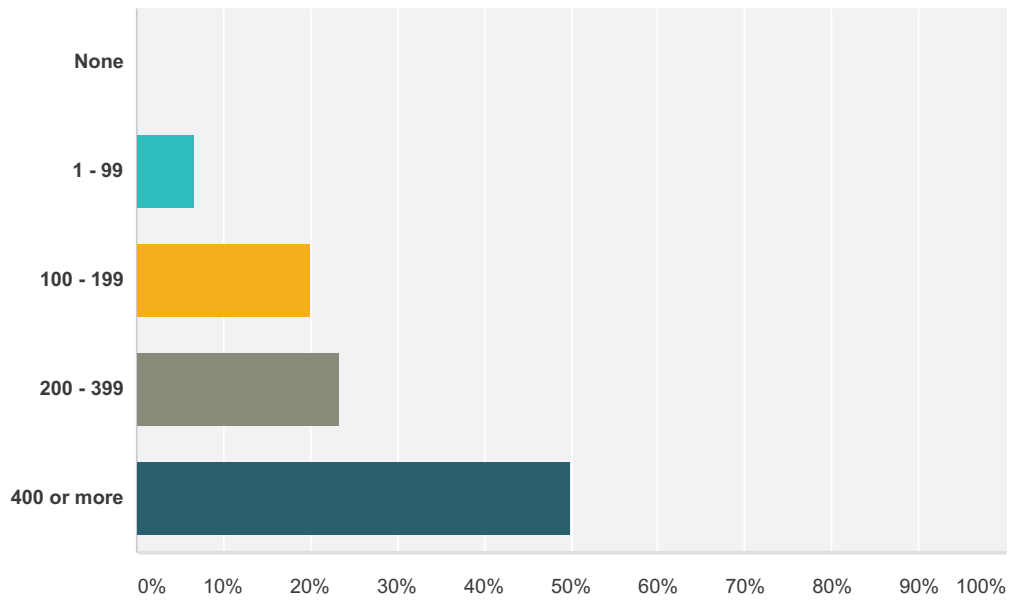
Answered: 30 Skipped: 0



Answer Choices	Responses
Yes	100.00% 30
No	0.00% 0
Total	30

Q5 Total number of catheter ablations (all types of arrhythmia) at your institution last calendar year:

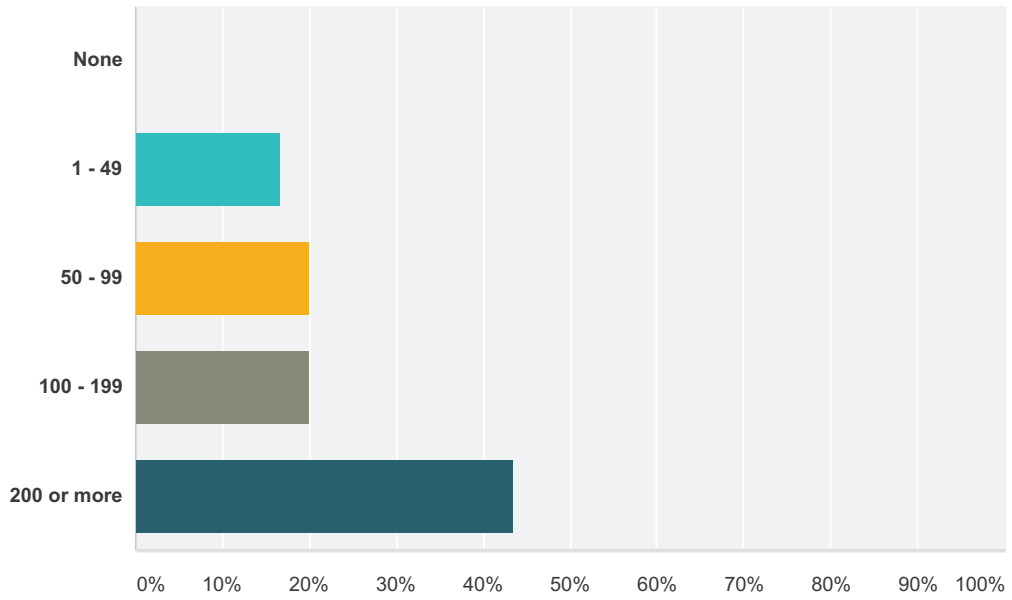
Answered: 30 Skipped: 0



Answer Choices	Responses	
None	0.00%	0
1 - 99	6.67%	2
100 - 199	20.00%	6
200 - 399	23.33%	7
400 or more	50.00%	15
Total		30

Q6 Total number of left atrial catheter ablations at your institution last calendar year:

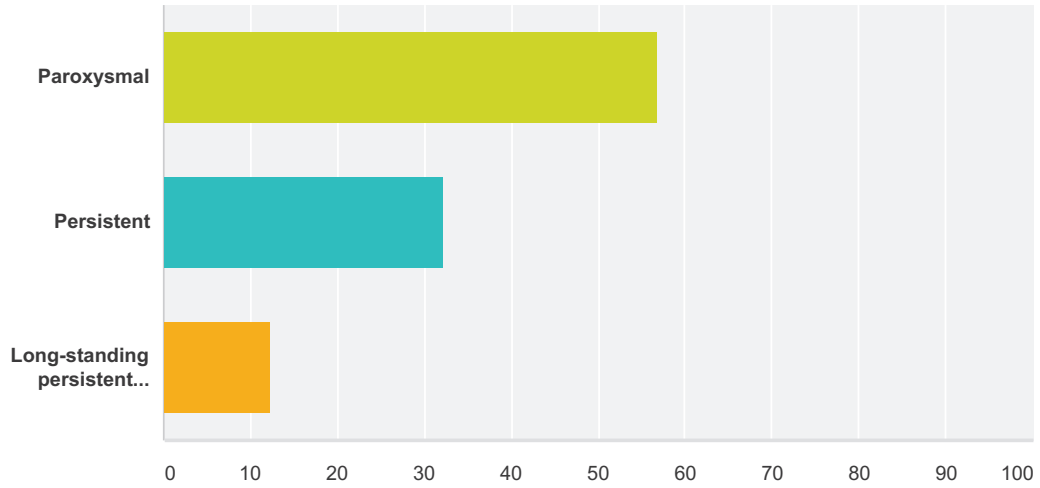
Answered: 30 Skipped: 0



Answer Choices	Responses
None	0.00% 0
1 - 49	16.67% 5
50 - 99	20.00% 6
100 - 199	20.00% 6
200 or more	43.33% 13
Total	30

Q7 What is the approximate distribution of AF types in patients undergoing ablation in your institution? Please give answers in percentages, sum should be 100.

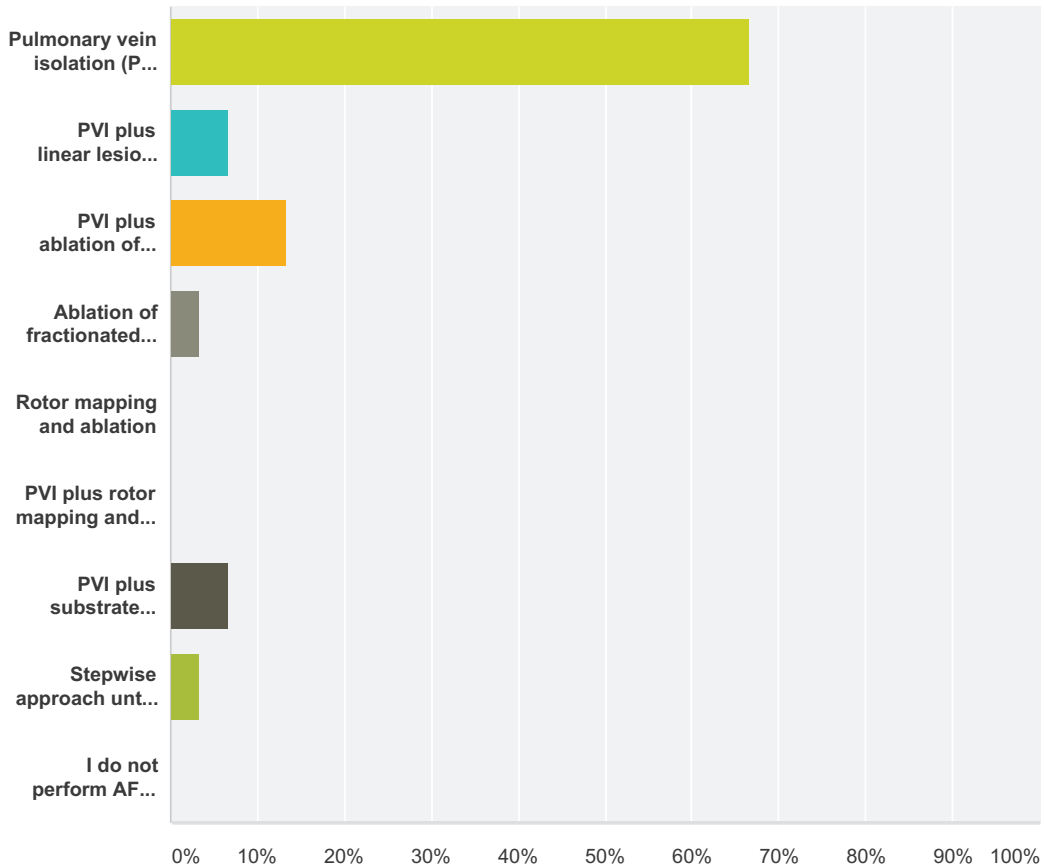
Answered: 30 Skipped: 0



Answer Choices	Average Number	Total Number	Responses
Paroxysmal	57	1,705	30
Persistent	32	963	30
Long-standing persistent (lasting longer than one year)	12	342	28
Total Respondents: 30			

Q8 What is your current main ablation strategy for persistent but not long-standing AF, i.e. the strategy employed in the greatest percentage of patients for first-time ablation (only one reply)?

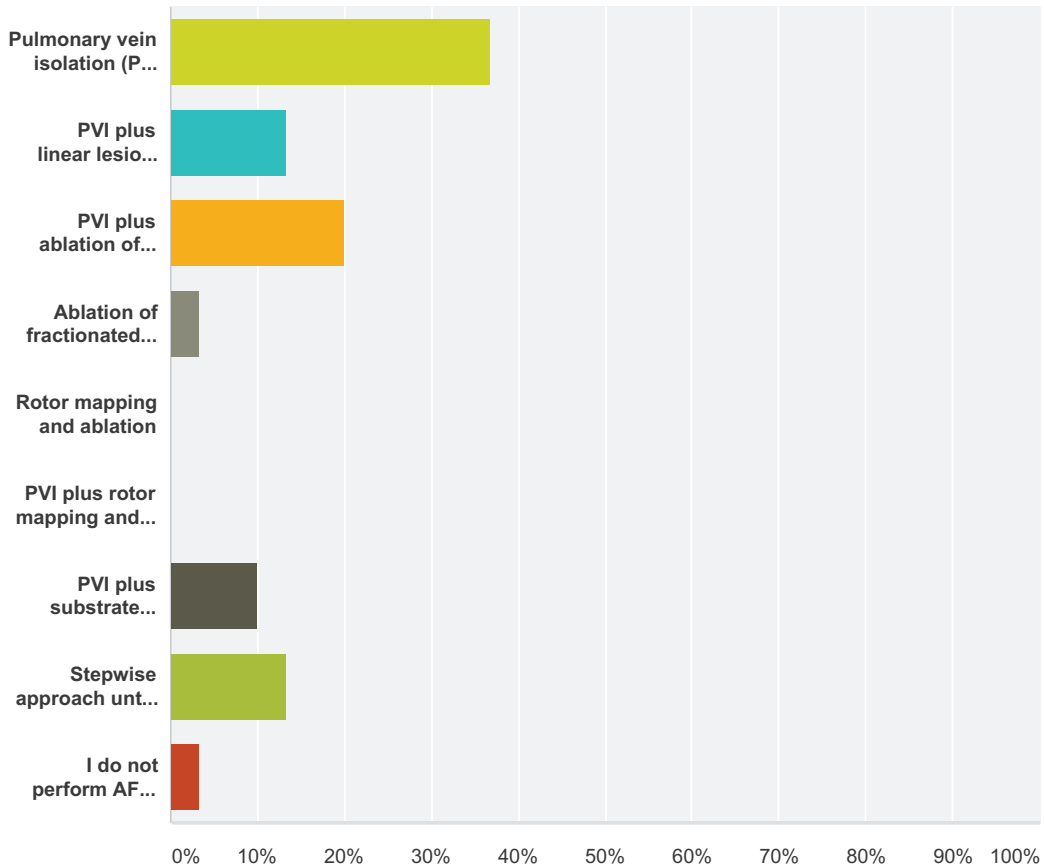
Answered: 30 Skipped: 0



Answer Choices	Responses
Pulmonary vein isolation (PVI) only	66.67% 20
PVI plus linear lesions (e.g. roof or mitral isthmus)	6.67% 2
PVI plus ablation of fractionated electrograms	13.33% 4
Ablation of fractionated electrograms only	3.33% 1
Rotor mapping and ablation	0.00% 0
PVI plus rotor mapping and ablation	0.00% 0
PVI plus substrate mapping and isolation of low voltage areas	6.67% 2
Stepwise approach until termination of AF	3.33% 1
I do not perform AF ablation in these patients	0.00% 0

Q9 What is your current main ablation strategy for long-standing persistent AF, i.e. the strategy employed in the greatest percentage of patients for first-time ablation (only one reply)?

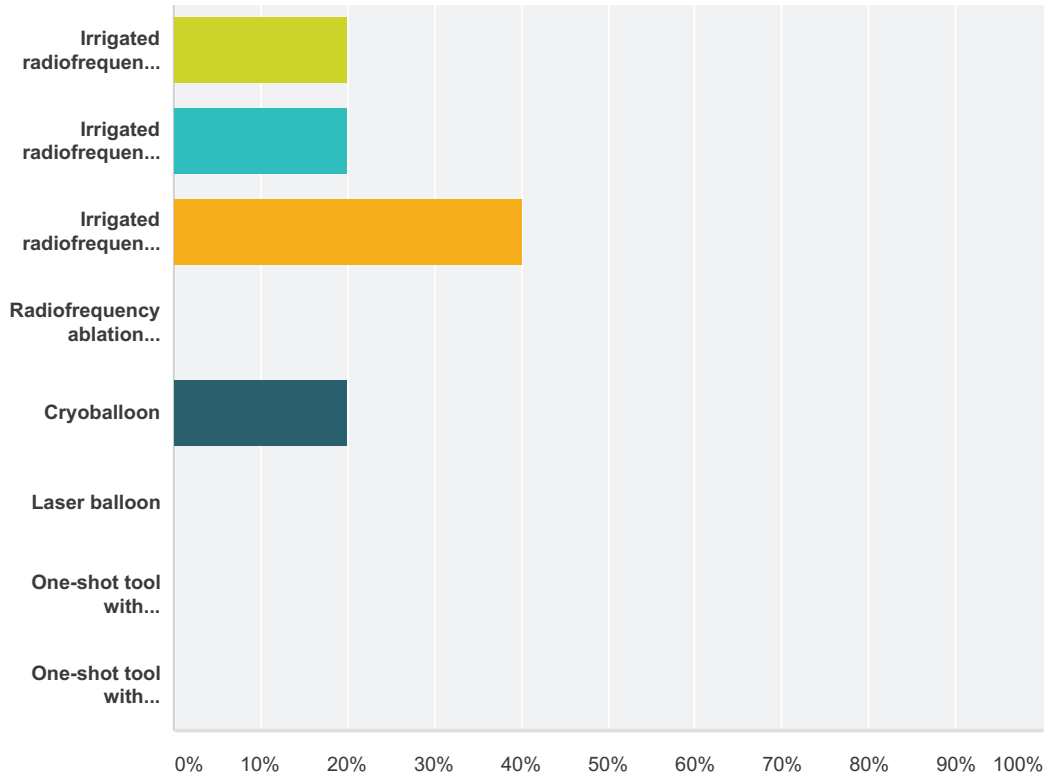
Answered: 30 Skipped: 0



Answer Choices	Responses
Pulmonary vein isolation (PVI) only	36.67% 11
PVI plus linear lesions (e.g. roof or mitral isthmus)	13.33% 4
PVI plus ablation of fractionated electrograms	20.00% 6
Ablation of fractionated electrograms only	3.33% 1
Rotor mapping and ablation	0.00% 0
PVI plus rotor mapping and ablation	0.00% 0
PVI plus substrate mapping and isolation of low voltage areas	10.00% 3
Stepwise approach until termination of AF	13.33% 4
I do not perform AF ablation in these patients	3.33% 1

Q10 If you perform only PVI in patients with persistent but not long-standing AF, which technique do you use in most cases for first-time ablation (only one reply)?

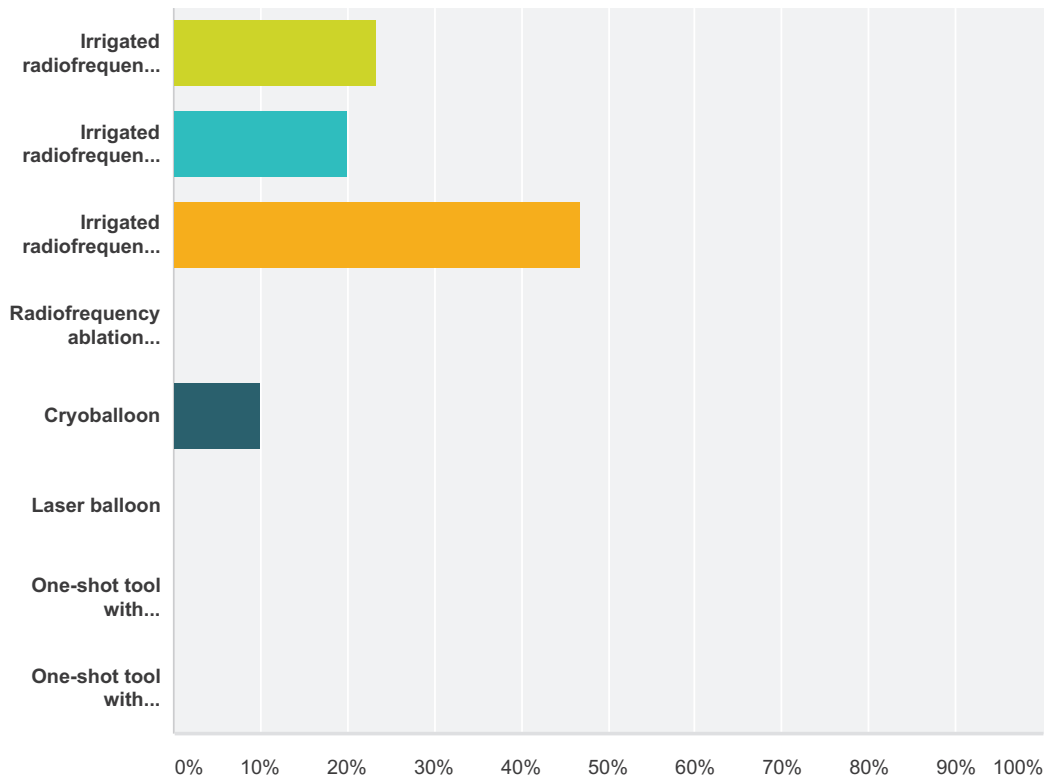
Answered: 30 Skipped: 0



Answer Choices	Responses
Irrigated radiofrequency ablation catheter and a circular mapping catheter	20.00% 6
Irrigated radiofrequency ablation catheter and an electroanatomic mapping system	20.00% 6
Irrigated radiofrequency ablation catheter with pressure indicator and an electroanatomic mapping system	40.00% 12
Radiofrequency ablation catheter with 8 mm tip and a circular mapping catheter	0.00% 0
Cryoballoon	20.00% 6
Laser balloon	0.00% 0
One-shot tool with radiofrequency and irrigation in a mapping style catheter (nMARQ™)	0.00% 0
One-shot tool with radiofrequency in a mapping style catheter (PVAC® catheter)	0.00% 0
Total	30

Q11 If you perform only PVI in patients with long-standing persistent AF, which technique do you use in most cases for first-time ablation (only one reply)?

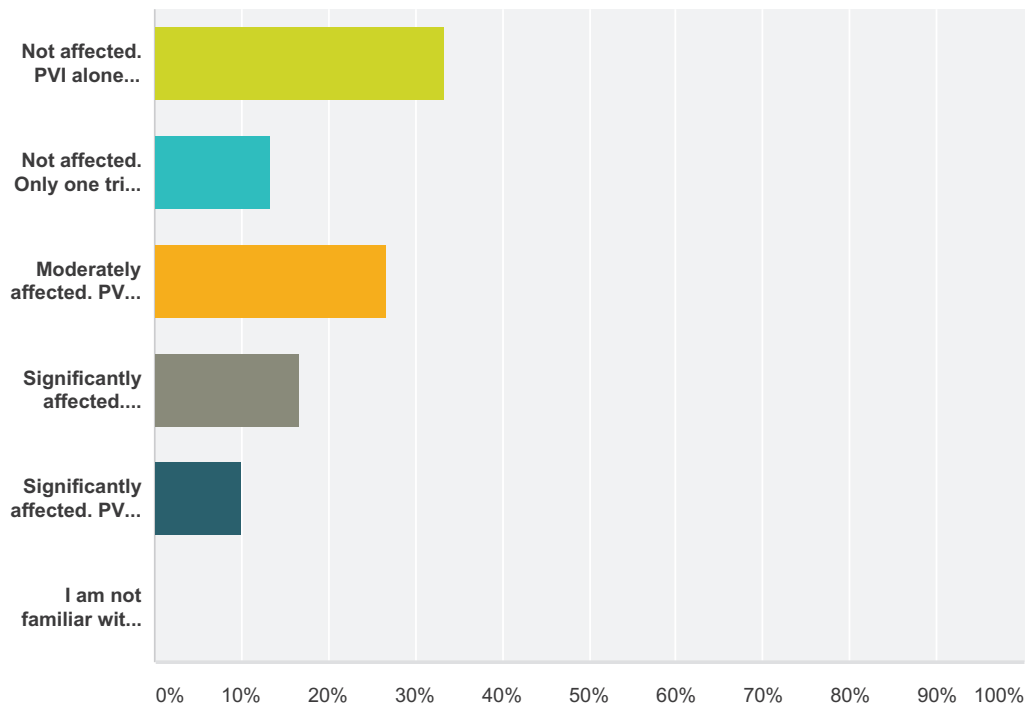
Answered: 30 Skipped: 0



Answer Choices	Responses
Irrigated radiofrequency ablation catheter and a circular mapping catheter	23.33% 7
Irrigated radiofrequency ablation catheter and an electroanatomic mapping system	20.00% 6
Irrigated radiofrequency ablation catheter with pressure indicator and an electroanatomic mapping system	46.67% 14
Radiofrequency ablation catheter with 8 mm tip and a circular mapping catheter	0.00% 0
Cryoballoon	10.00% 3
Laser balloon	0.00% 0
One-shot tool with radiofrequency and irrigation in a mapping style catheter (nMARQ™)	0.00% 0
One-shot tool with radiofrequency in a mapping style catheter (PVAC® catheter)	0.00% 0
Total	30

Q12 Has your strategy for ablation of persistent AF been affected by the recent results of the STAR-AFII trial, which indicated that linear ablation or ablation of complex fractionated electrograms are of no additive benefit to pulmonary vein isolation alone in patients with persistent atrial fibrillation? Only one answer.

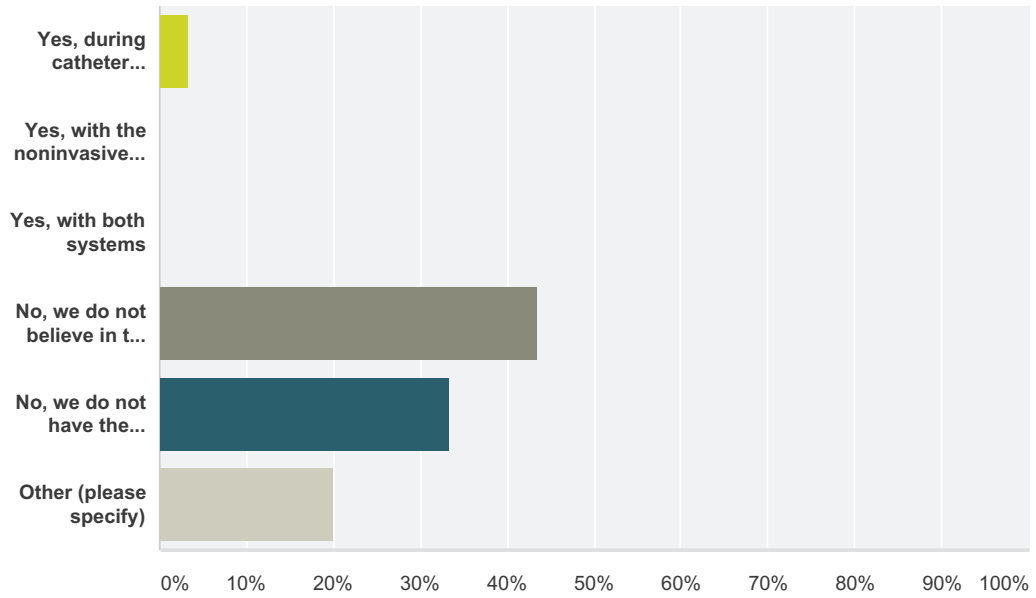
Answered: 30 Skipped: 0



Answer Choices	Responses
Not affected. PVI alone mostly performed in patients with persistent AF before the publication of the trial.	33.33% 10
Not affected. Only one trial available and more extensive ablation is necessary for this type of AF.	13.33% 4
Moderately affected. PVI alone is now used in patients without extensive atrial substrate disease.	26.67% 8
Significantly affected. Ablation of fractionated electrograms or linear lesions are no longer used but was frequently used prior to this study.	16.67% 5
Significantly affected. PVI alone is now performed in these patients although extensive ablation was used previously.	10.00% 3
I am not familiar with this particular trial.	0.00% 0
Total	30

Q13 Do you have the equipment to perform rotor mapping in your institution?

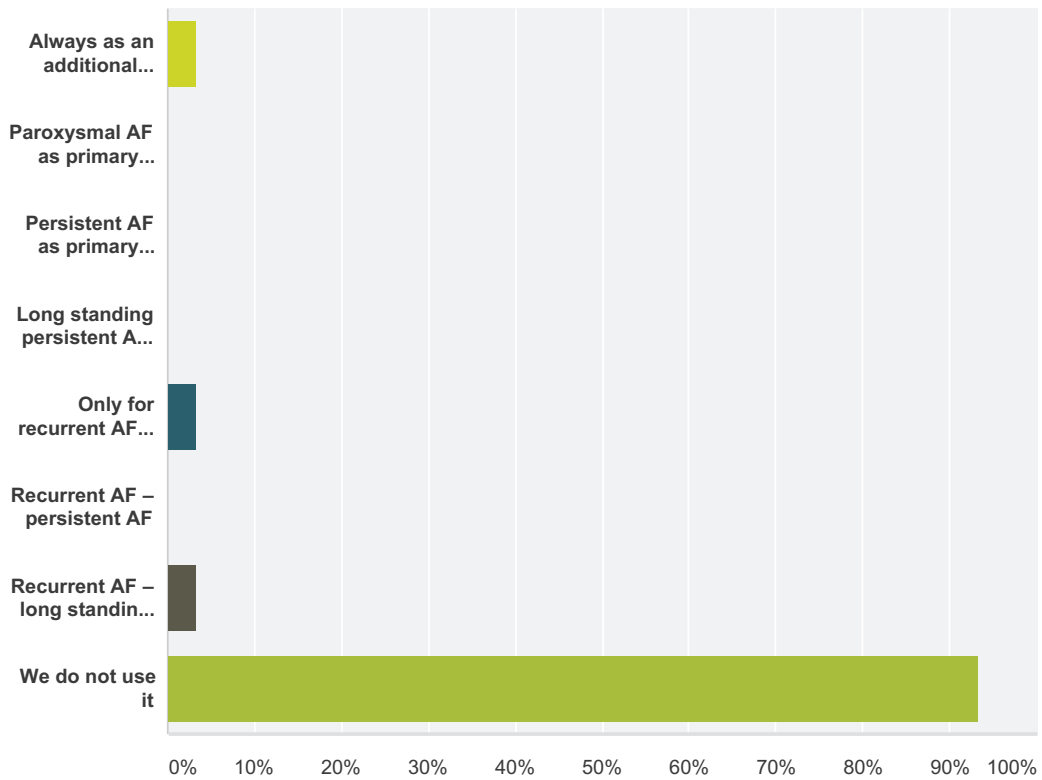
Answered: 30 Skipped: 0



Answer Choices	Responses
Yes, during catheter ablation with the Topera Abbott system (FIRMap™)	3.33% 1
Yes, with the noninvasive CardiInsight body surface mapping system (ECVUE™)	0.00% 0
Yes, with both systems	0.00% 0
No, we do not believe in the technique	43.33% 13
No, we do not have the financial resources	33.33% 10
Other (please specify)	20.00% 6
Total	30

Q14 For which patients and clinical situations do you perform rotor ablation? (several replies possible)

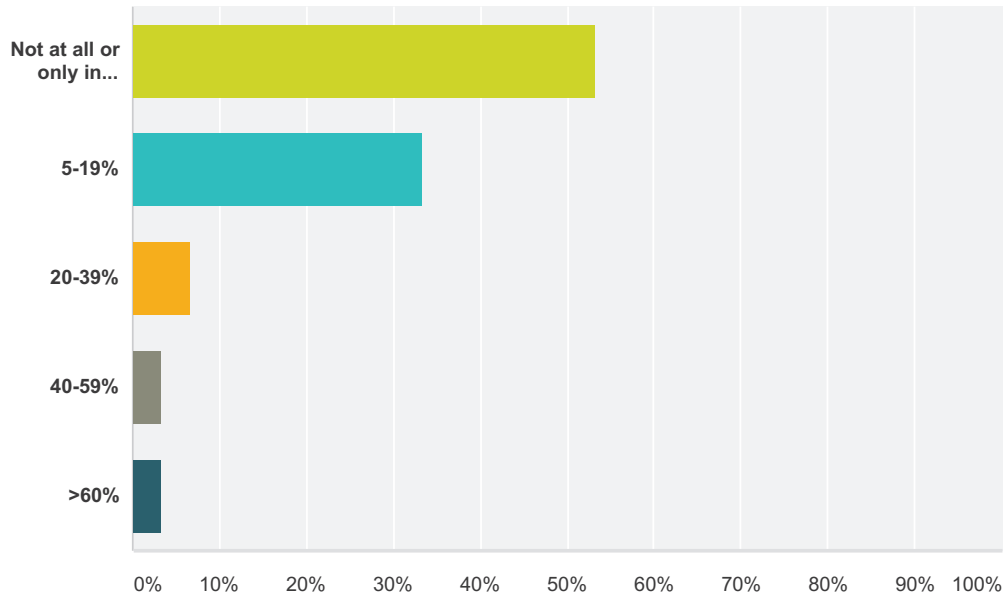
Answered: 30 Skipped: 0



Answer Choices	Responses
Always as an additional ablation to PVI	3.33% 1
Paroxysmal AF as primary intervention	0.00% 0
Persistent AF as primary intervention	0.00% 0
Long standing persistent AF as primary intervention	0.00% 0
Only for recurrent AF – all types	3.33% 1
Recurrent AF – persistent AF	0.00% 0
Recurrent AF – long standing persistent AF	3.33% 1
We do not use it	93.33% 28
Total Respondents: 30	

Q15 In what percentage of ablation procedures in patients with persistent AF do you also perform right atrial ablation lesions (including right atrium, the coronary sinus, the superior caval vein etc)?

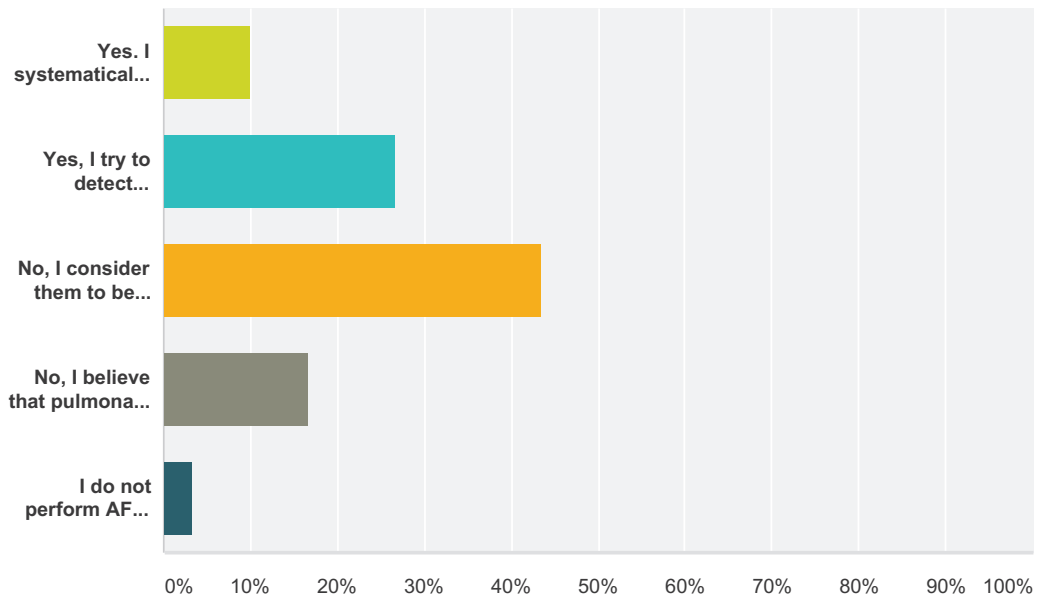
Answered: 30 Skipped: 0



Answer Choices	Responses	
Not at all or only in isolated cases (<5%)	53.33%	16
5-19%	33.33%	10
20-39%	6.67%	2
40-59%	3.33%	1
>60%	3.33%	1
Total		30

Q16 Does your routine ablation strategy for persistent AF include detection of non-pulmonary vein triggers? (only one option)

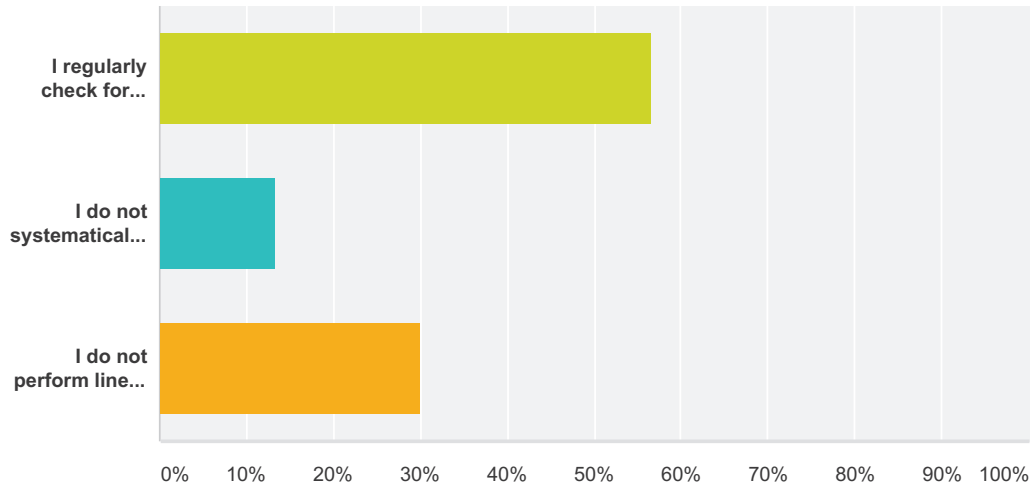
Answered: 30 Skipped: 0



Answer Choices	Responses
Yes. I systematically try to detect non-pulmonary vein triggers with isoproterenol and then target them.	10.00% 3
Yes, I try to detect non-pulmonary vein triggers but only in a minority of cases.	26.67% 8
No, I consider them to be important in only a small number of patients.	43.33% 13
No, I believe that pulmonary vein isolation is the correct strategy even in these patients	16.67% 5
I do not perform AF ablation at all in these patients	3.33% 1
Total	30

Q17 When linear ablation lesions are performed in patients with persistent AF:

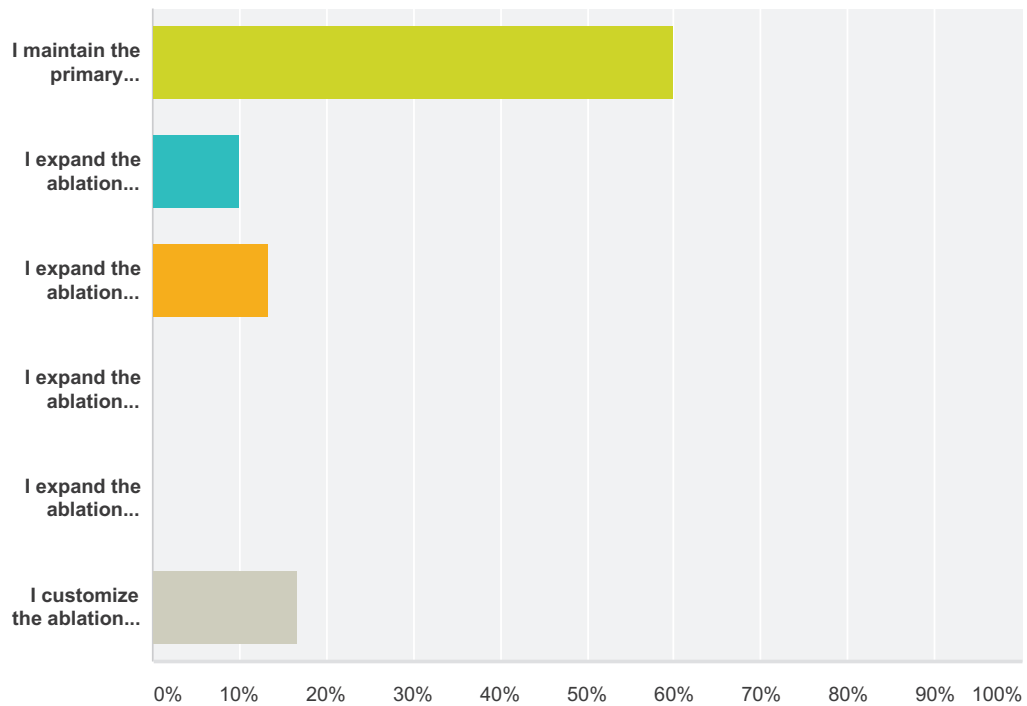
Answered: 30 Skipped: 0



Answer Choices	Responses
I regularly check for conduction block by pacing maneuvers.	56.67% 17
I do not systematically check for the completeness of lines.	13.33% 4
I do not perform linear ablation lesions.	30.00% 9
Total	30

Q18 What is your strategy in a case with reconduction of pulmonary veins after a previous ablation for persistent AF ?

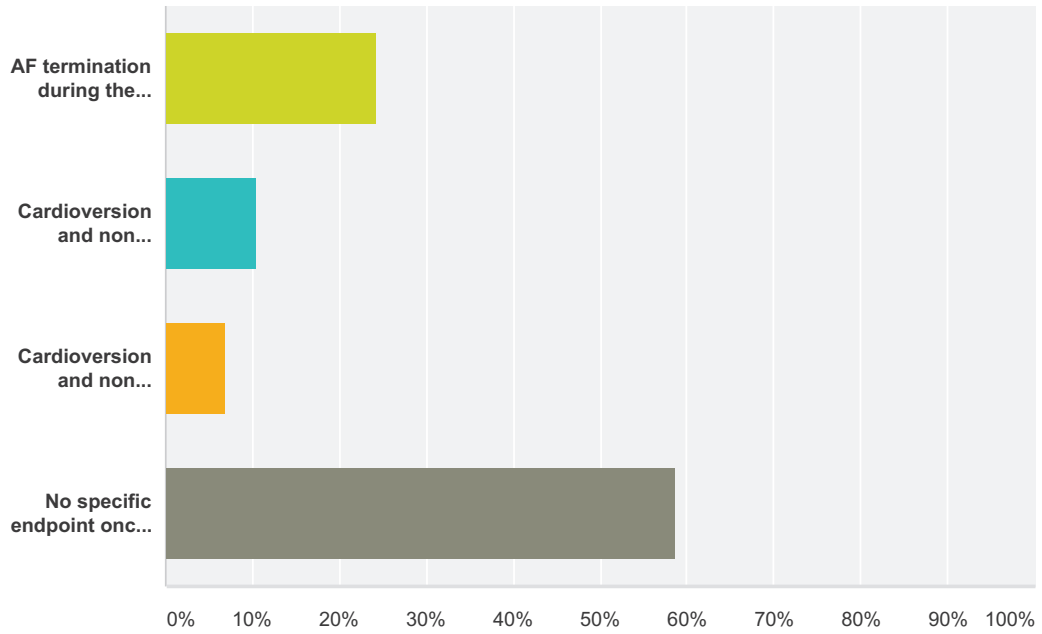
Answered: 30 Skipped: 0



Answer Choices	Responses
I maintain the primary ablation strategy and try to fix gaps of the previous ablation (for instance by reisolating the pulmonary veins).	60.00% 18
I expand the ablation strategy adding linear lesions in the left atrium.	10.00% 3
I expand the ablation strategy adding ablation of complex fractionated electrograms	13.33% 4
I expand the ablation strategy adding rotor ablation	0.00% 0
I expand the ablation strategy adding right and left linear lesions ablation	0.00% 0
I customize the ablation approach depending on the patient's response to the previous ablation or consider thoracoscopic epicardial AF ablation including pulmonary vein isolation and a box lesion.	16.67% 5
Total	30

Q19 What is your endpoint during first-time ablation of persistent AF?

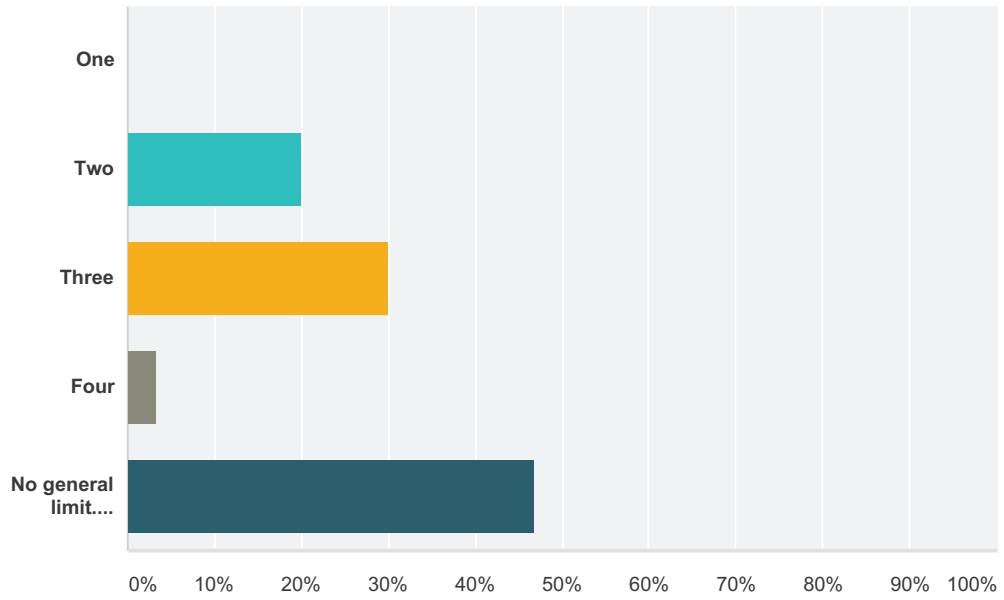
Answered: 29 Skipped: 1



Answer Choices	Responses
AF termination during the ablation procedure	24.14% 7
Cardioversion and non inducible AF by provocative maneuvers with adenosine	10.34% 3
Cardioversion and non inducible AF by provocative maneuvers with isoproterenol	6.90% 2
No specific endpoint once the ablation strategy is fulfilled.	58.62% 17
Total	29

Q20 What is the maximum number of procedures that you would perform in a patient with persistent AF?

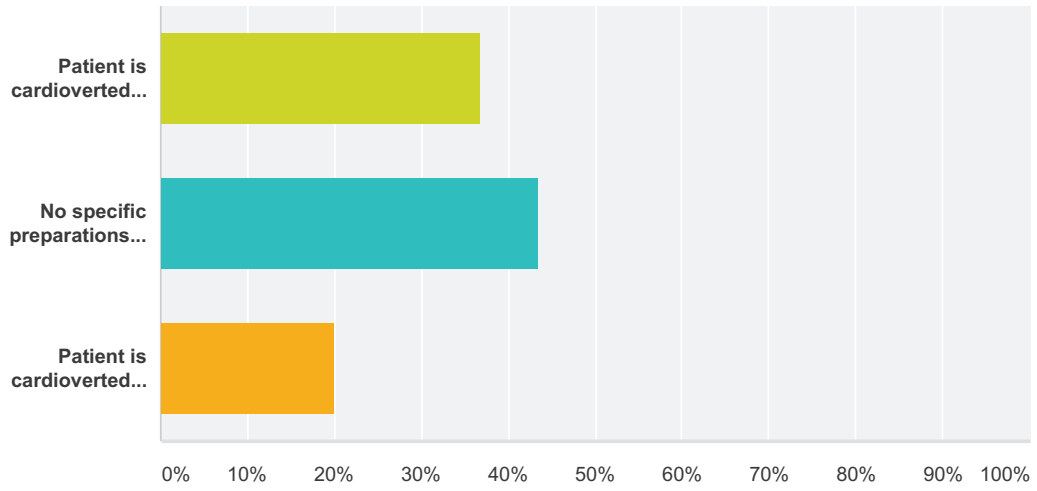
Answered: 30 Skipped: 0



Answer Choices	Responses	
One	0.00%	0
Two	20.00%	6
Three	30.00%	9
Four	3.33%	1
No general limit. Individual decision.	46.67%	14
Total		30

Q21 How do you prepare patients with persistent AF before an ablation procedure?

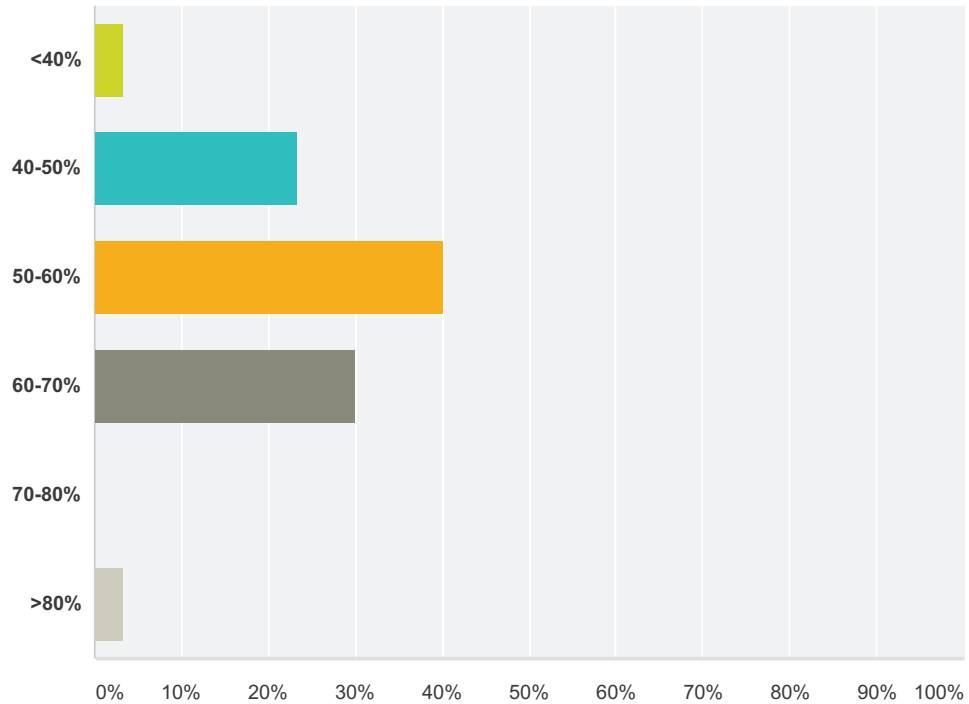
Answered: 30 Skipped: 0



Answer Choices	Responses
Patient is cardioverted if ablation cannot be performed within a shorter period in order to avoid substrate progression during the waiting time.	36.67% 11
No specific preparations prior to ablation procedure.	43.33% 13
Patient is cardioverted and amiodarone is prescribed.	20.00% 6
Total	30

Q22 What is the approximate overall success rate of catheter ablation in patients with persistent AF at your institution? Please give the approximate percentage of patients remaining free from recurrences off antiarrhythmic drugs at one year of follow-up after a single ablation procedure.

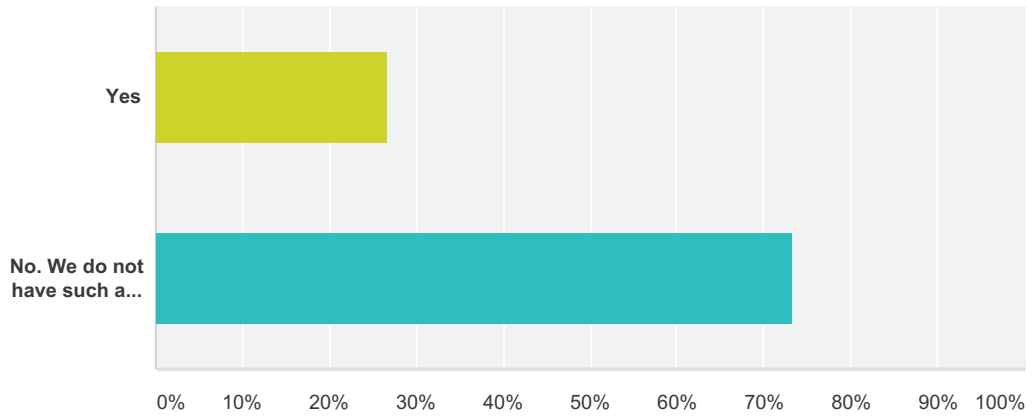
Answered: 30 Skipped: 0



Answer Choices	Responses	Count
<40%	3.33%	1
40-50%	23.33%	7
50-60%	40.00%	12
60-70%	30.00%	9
70-80%	0.00%	0
>80%	3.33%	1
Total		30

Q23 Do you know the five-year results of the ablation procedures that you have performed for persistent AF?

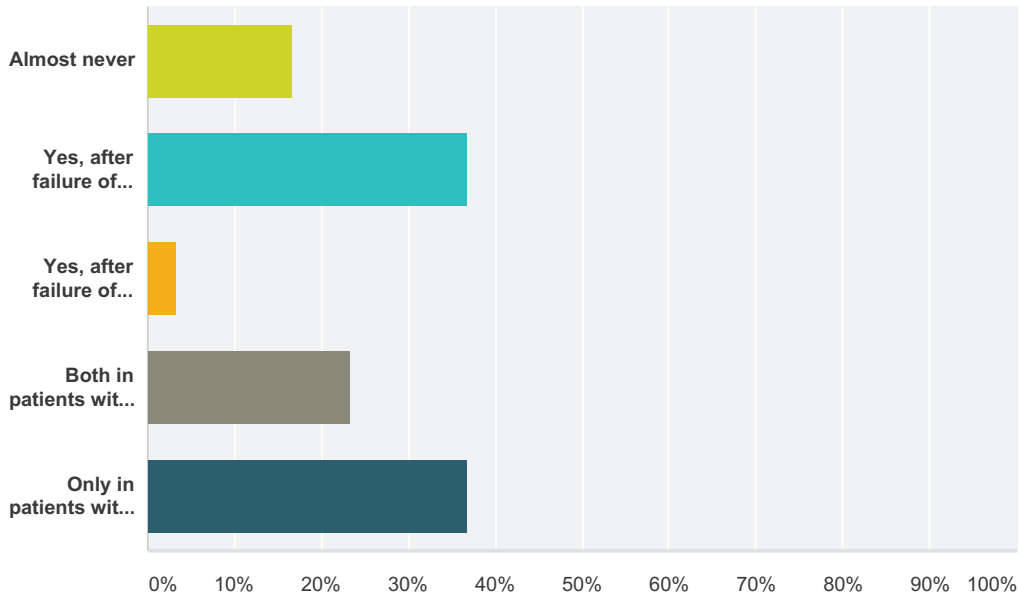
Answered: 30 Skipped: 0



Answer Choices	Responses
Yes	26.67% 8
No. We do not have such a long follow up for patients undergoing ablation.	73.33% 22
Total	30

Q24 For symptomatic patients with persistent AF, do you consider AV nodal ablation with implantation of a pacemaker as a treatment option? (multiple answers possible)

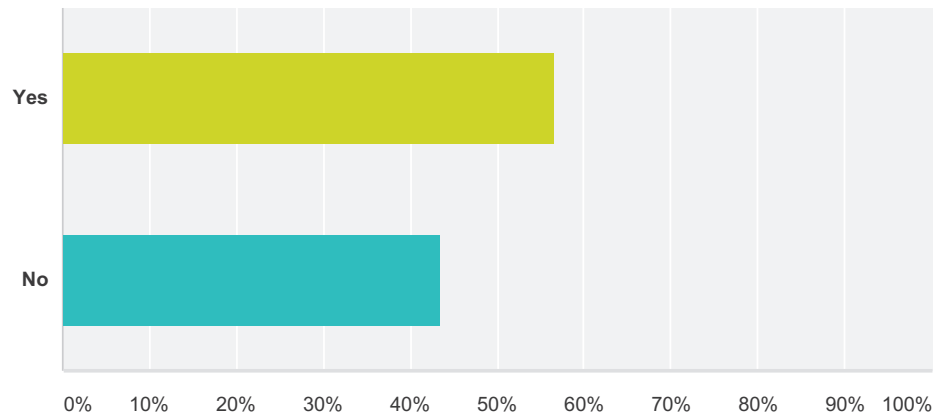
Answered: 30 Skipped: 0



Answer Choices	Responses
Almost never	16.67% 5
Yes, after failure of cardioversion and AF ablation	36.67% 11
Yes, after failure of cardioversion without AF ablation because of the moderate results of AF ablation	3.33% 1
Both in patients with long-standing and not long-standing persistent AF	23.33% 7
Only in patients with long-standing persistent AF (permanent AF)	36.67% 11
Total Respondents: 30	

Q25 Do you have a quality registry for ablation procedures in your country?

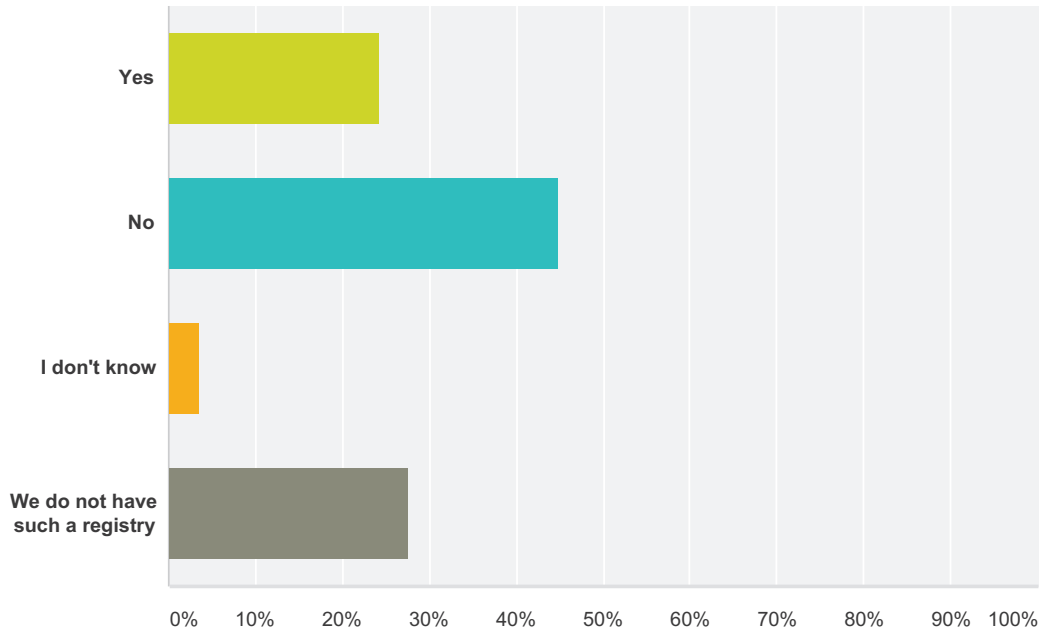
Answered: 30 Skipped: 0



Answer Choices	Responses	
Yes	56.67%	17
No	43.33%	13
Total		30

Q26 Is participation in the quality registry compulsory?

Answered: 29 Skipped: 1



Answer Choices	Responses
Yes	24.14% 7
No	44.83% 13
I don't know	3.45% 1
We do not have such a registry	27.59% 8
Total	29