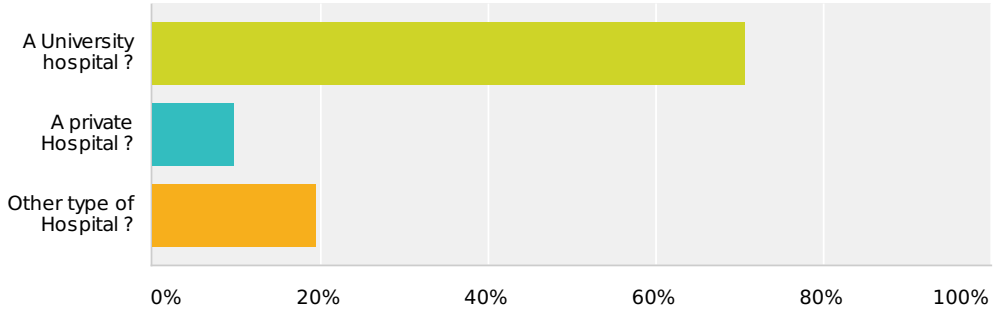
Q1 Is your institution :

Answered: 41 Skipped: 0



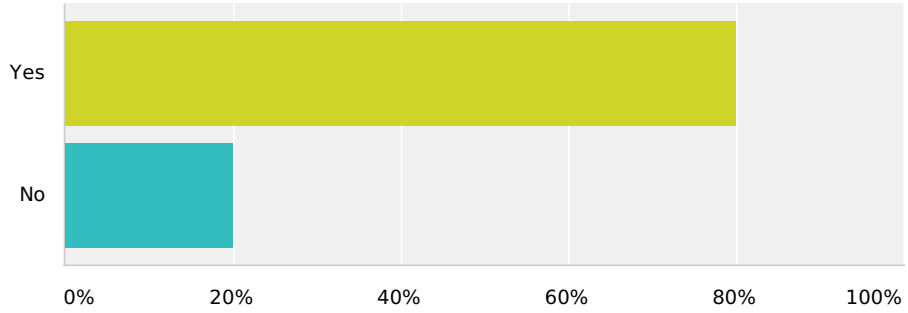
Answer Choices	Responses	
A University hospital ?	**70.73%**	29
A private Hospital ?	**9.76%**	4
Other type of Hospital ?	**19.51%**	8
Total		41

Q2 Please indicate your country.

Answered: 40 Skipped: 1

Q3 Do you have a cardiac surgery at your institution?

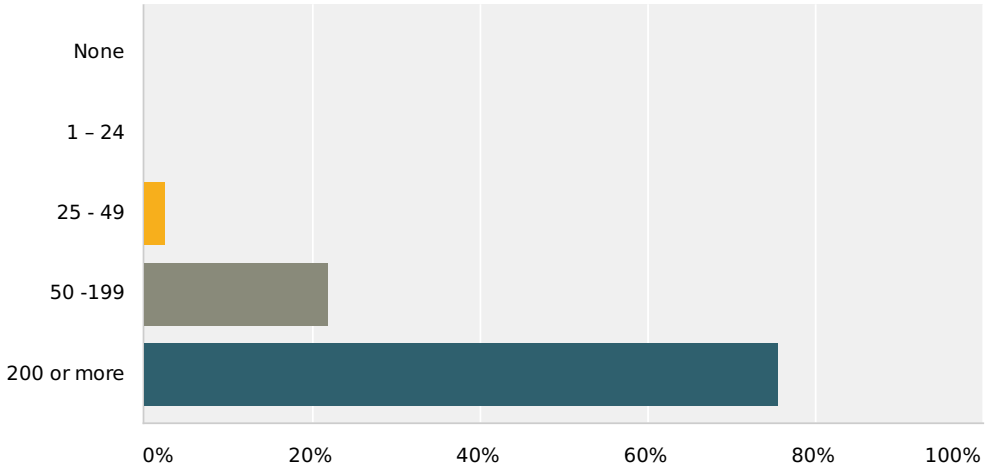
Answered: 40 Skipped: 1



Answer Choices	Responses	
Yes	**80%**	32
No	**20%**	8
Total		40

Q4 Number of Pacemaker implantations (Including CRT-Ps) at your institution (including box changes) last calendar year:

Answered: 41 Skipped: 0



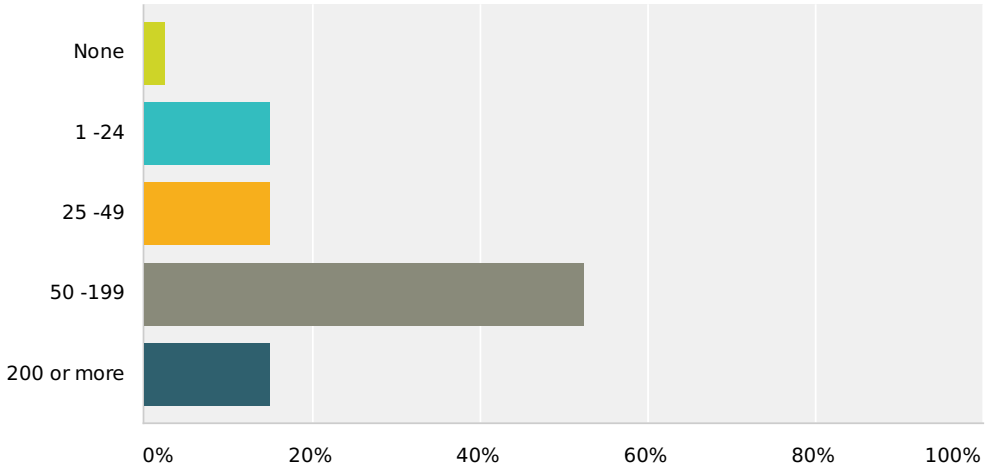
Answer Choices	Responses	
None	**0%**	0
1 – 24	**0%**	0
25 - 49	**2.44%**	1
50 -199	**21.95%**	9
200 or more	**75.61%**	31
Total		41

Q5 What percentage of your pacemaker implants receive CRT-P ?

Answered: 39 Skipped: 2

Q6 Number of ICD implantations (Including CRT-Ds) at your institution (including box changes) last calendar year :

Answered: 40 Skipped: 1



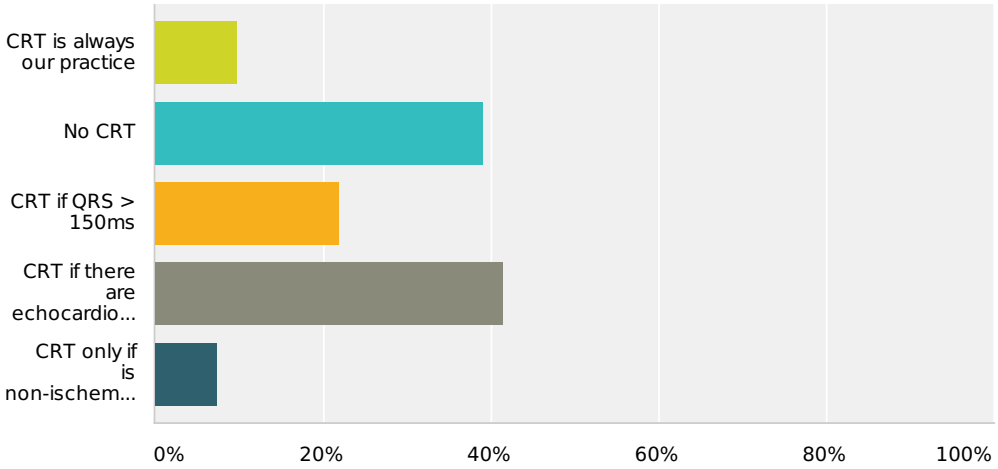
Answer Choices	Responses	
None	**2.50%**	1
1 -24	**15%**	6
25 -49	**15%**	6
50 -199	**52.50%**	21
200 or more	**15%**	6
Total		40

Q7 What percentage of ICD Implants receive CRT-D?

Answered: 41 Skipped: 0

Q8 What is your practice concerning CRT for patients with RBBB (QRS complex duration >120 ms) and dilated cardiomyopathy (LVEF < 35% and NYHA functional class III or IV on optimal medical therapy)?

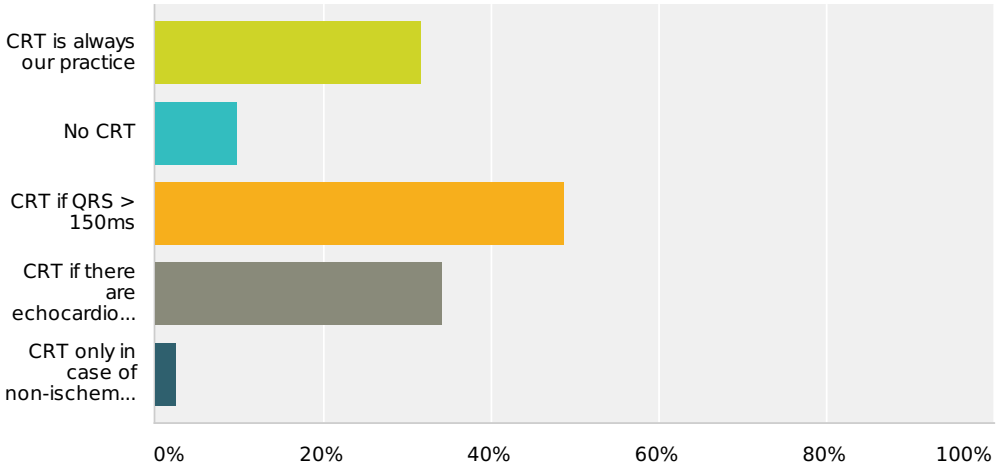
Answered: 41 Skipped: 0



Answer Choices	Responses	
CRT is always our practice	**9.76%**	4
No CRT	**39.02%**	16
CRT if QRS > 150ms	**21.95%**	9
CRT if there are echocardiographic criteria of asynchrony	**41.46%**	17
CRT only if is non-ischemic dilated cardiomyopathy	**7.32%**	3
Total Respondents: 41		

Q9 What is your practice concerning CRT for patients with NYHA functional class II and dilated cardiomyopathy (LBBB, QRS complex duration >120ms, LVEF < 35% on optimal medical therapy)?

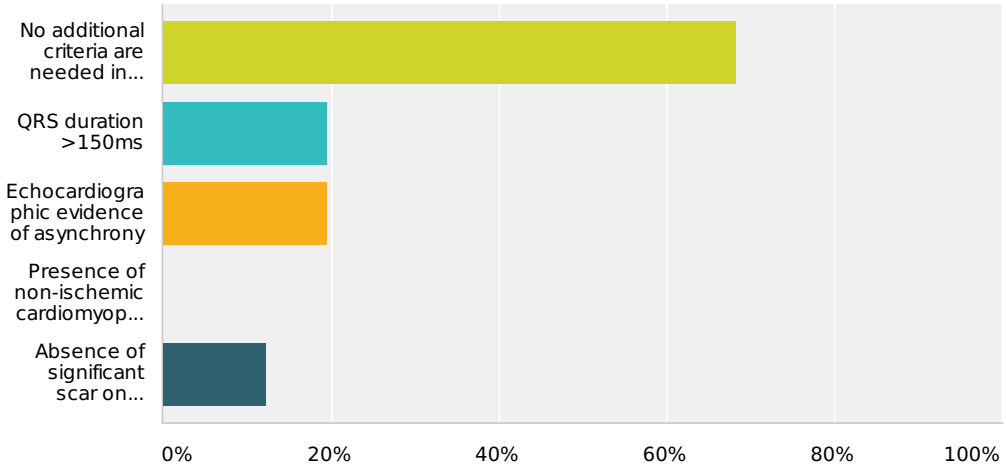
Answered: 41 Skipped: 0



Answer Choices	Responses	
CRT is always our practice	**31.71%**	13
No CRT	**9.76%**	4
CRT if QRS > 150ms	**48.78%**	20
CRT if there are echocardiographic criteria of asynchrony	**34.15%**	14
CRT only in case of non-ischemic dilated cardiomyopathy	**2.44%**	1
Total Respondents: 41		

Q10 State which additional criteria you require for CRT in patients with functional class III or IV heart failure, LVEF < 35%, LBBB with QRS >120ms, on optimal medical therapy?

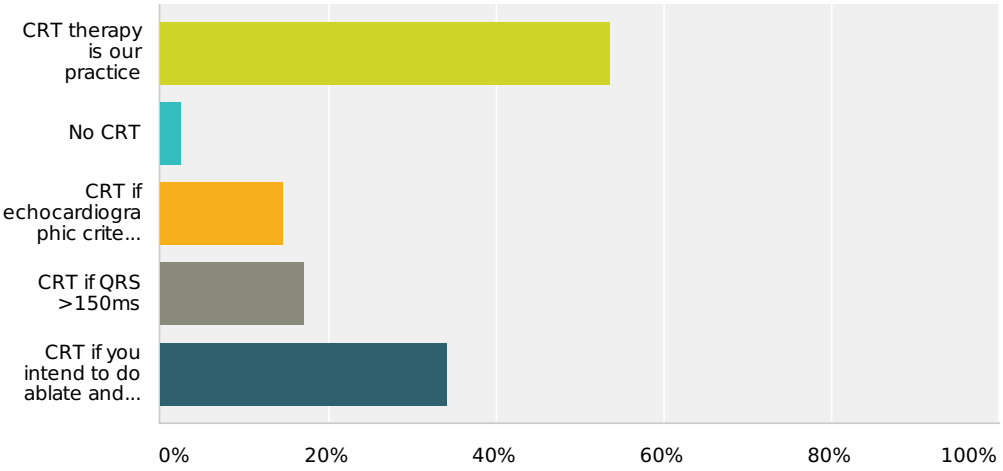
Answered: 41 Skipped: 0



Answer Choices	Responses	
No additional criteria are needed in this situation	**68.29%**	28
QRS duration >150ms	**19.51%**	8
Echocardiographic evidence of asynchrony	**19.51%**	8
Presence of non-ischemic cardiomyopathy	**0%**	0
Absence of significant scar on echo/MRI	**12.20%**	5
Total Respondents: 41		

Q11 What is your practice for patients with permanent atrial fibrillation, QRS complex duration >130ms, LVEF <35% and NYHA functional class III or IV?

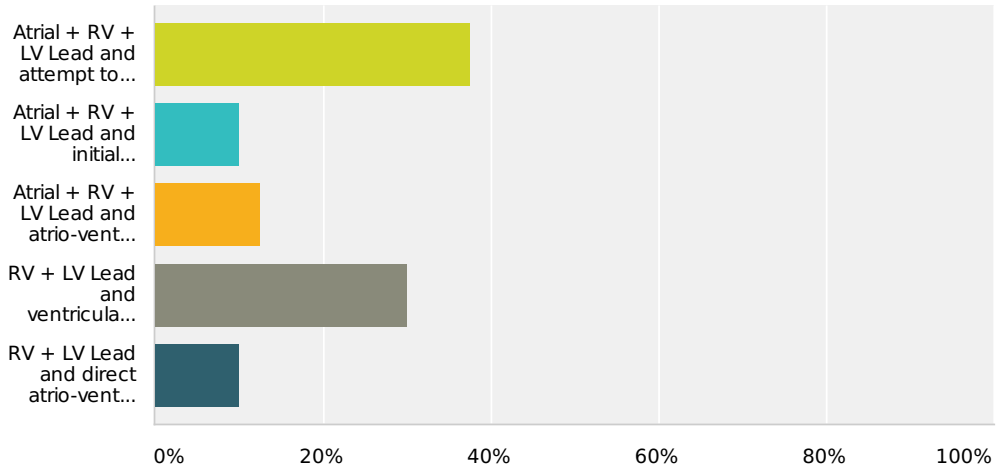
Answered: 41 Skipped: 0



Answer Choices	Responses	
CRT therapy is our practice	**53.66%**	22
No CRT	**2.44%**	1
CRT if echocardiographic criteria of asynchrony are present	**14.63%**	6
CRT if QRS >150ms	**17.07%**	7
CRT if you intend to do ablate and pace for the rate control of AF	**34.15%**	14
Total Respondents: 41		

Q12 What is your strategy for CRT in patients with AF?

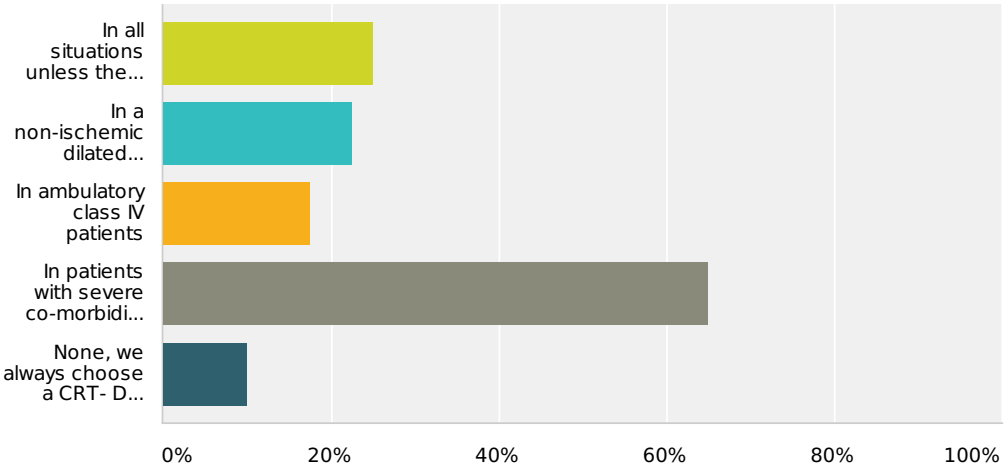
Answered: 40 Skipped: 1



Answer Choices	Responses	
Atrial + RV + LV Lead and attempt to restore sinus rhythm if there is reverse remodeling	**37.50%**	15
Atrial + RV + LV Lead and initial attempt to control the ventricular rate with drugs	**10%**	4
Atrial + RV + LV Lead and atrio-ventricular node ablation from the beginning	**12.50%**	5
RV + LV Lead and ventricular rate control with drugs	**30%**	12
RV + LV Lead and direct atrio-ventricular node ablation	**10%**	4
Total		40

Q13 In which situation do you choose a device without defibrillation capabilities (i.e. CRT-P) for a patient with indication for CRT?

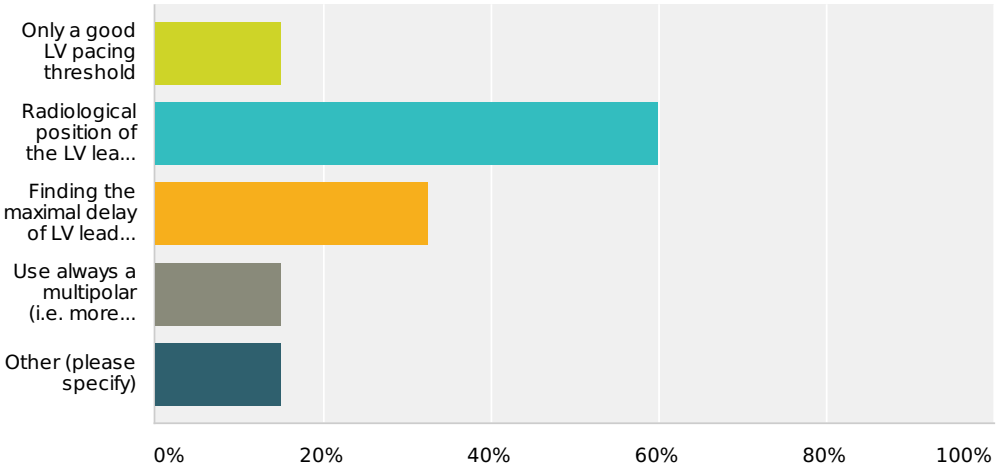
Answered: 40 Skipped: 1



Answer Choices	Responses	
In all situations unless there is an indication for secondary prevention of SCD	**25%**	10
In a non-ischemic dilated cardiomyopathy	**22.50%**	9
In ambulatory class IV patients	**17.50%**	7
In patients with severe co-morbidities	**65%**	26
None, we always choose a CRT- D device	**10%**	4
Total Respondents: 40		

Q14 Which criteria or tools do you routinely use during the implant procedure, in order to find the best sidte for the LV lead?

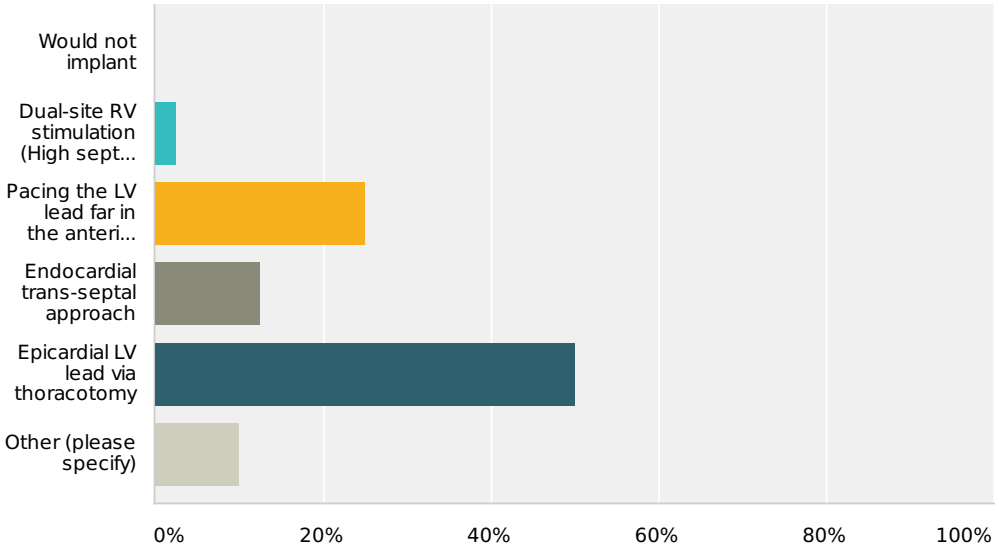
Answered: 40 Skipped: 1



Answer Choices	Responses	
Only a good LV pacing threshold	**15%**	6
Radiological position of the LV lead concordant with the zone of maximal mechanic delay on echocardiography	**60%**	24
Finding the maximal delay of LV lead electrogram compared to the QRS/RV lead electrogram	**32.50%**	13
Use always a multipolar (i.e. more than 2 poles) LV lead	**15%**	6
Other (please specify)	**15%**	6
Total Respondents: 40		

Q15 If there are no feasible lateral veins for LV lead implantation via coronary sinus, which of the following alternatives would be your preferred one?

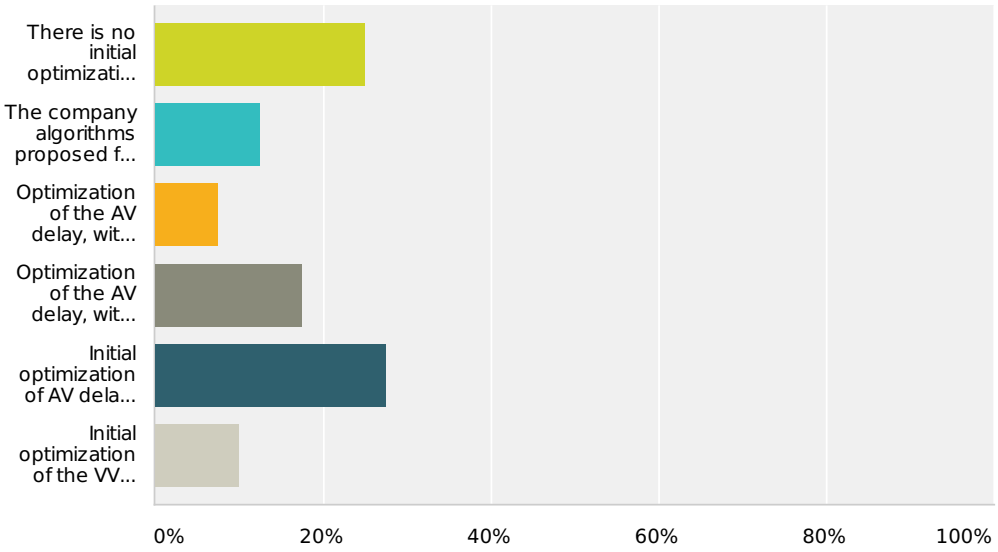
Answered: 40 Skipped: 1



Answer Choices	Responses	
Would not implant	**0%**	0
Dual-site RV stimulation (High septal and apical)	**2.50%**	1
Pacing the LV lead far in the anterior vein	**25%**	10
Endocardial trans-septal approach	**12.50%**	5
Epicardial LV lead via thoracotomy	**50%**	20
Other (please specify)	**10%**	4
Total		40

Q16 What is the strategy for initial optimization of CRT after implantation?

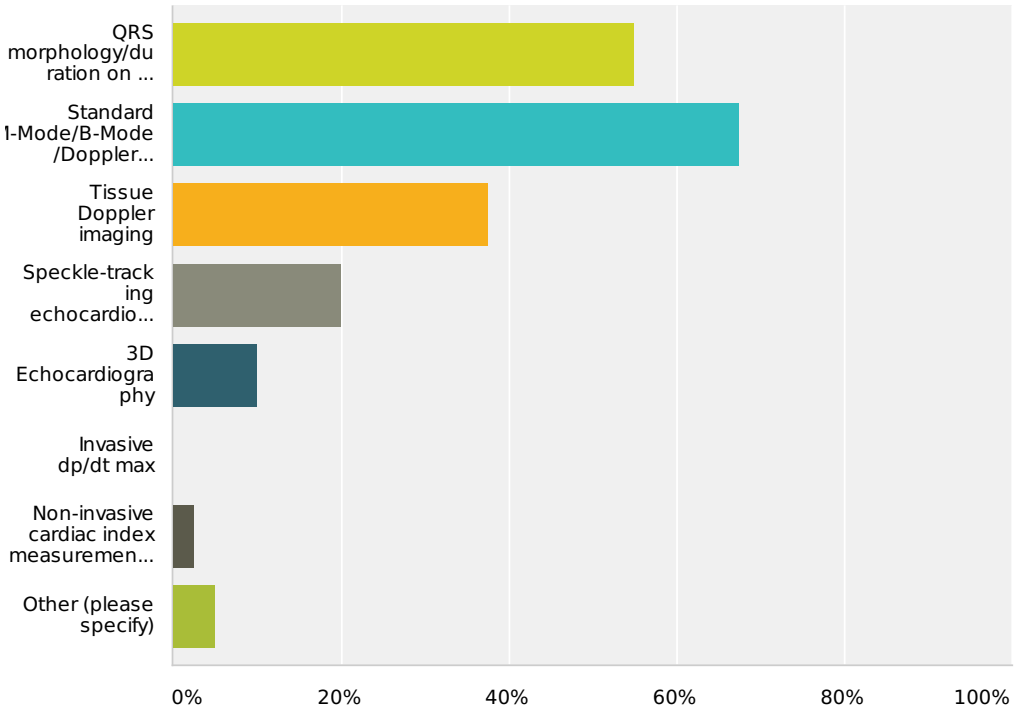
Answered: 40 Skipped: 1



Answer Choices	Responses	
There is no initial optimization, only for non-responders	**25%**	10
The company algorithms proposed for the implanted device	**12.50%**	5
Optimization of the AV delay, with standard VV interval	**7.50%**	3
Optimization of the AV delay, with standard VV interval, but different depending on clinical/ECG conditions.	**17.50%**	7
Initial optimization of AV delay and if necessary of the VV interval	**27.50%**	11
Initial optimization of the VV interval and if necessary of the AV interval.	**10%**	4
Total		40

Q17 What methods do you practice for optimization of the CRT after implantation?

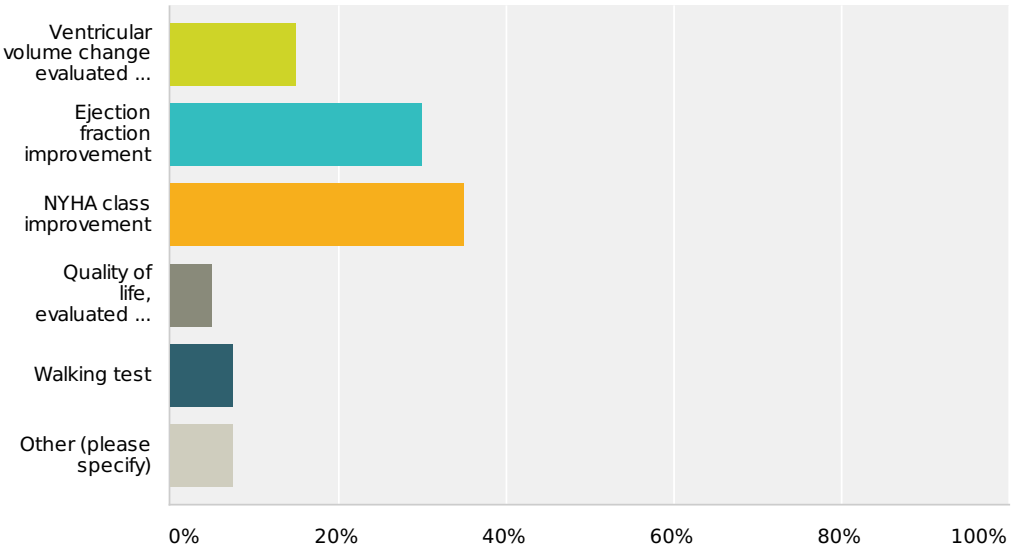
Answered: 40 Skipped: 1



Answer Choices	Responses	
QRS morphology/duration on 12 lead ECG	**55.00%**	22
Standard M-Mode/B-Mode/Doppler echocardiography	**67.50%**	27
Tissue Doppler imaging	**37.50%**	15
Speckle-tracking echocardiography	**20%**	8
3D Echocardiography	**10%**	4
Invasive dp/dt max	**0%**	0
Non-invasive cardiac index measurement by impedance	**2.50%**	1
Other (please specify)	**5%**	2
Total Respondents: 40		

Q18 Which criterion do you find to be the most important in assessing the response to CRT?

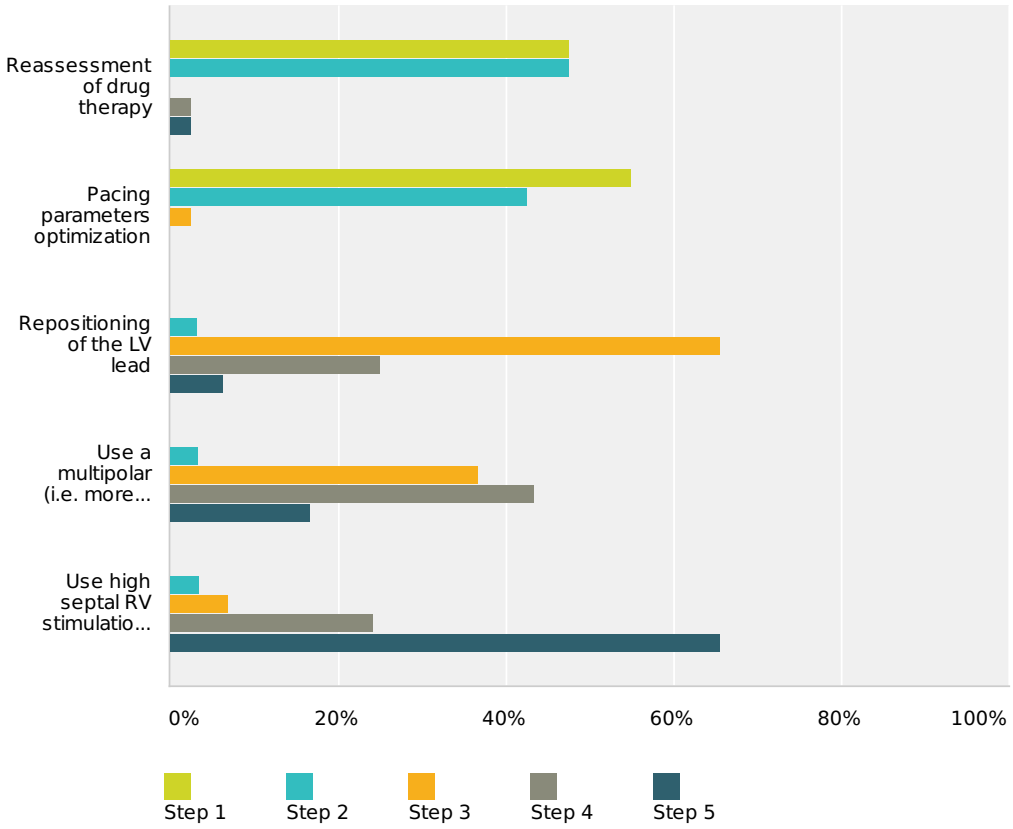
Answered: 40 Skipped: 1



Answer Choices	Responses	
Ventricular volume change evaluated by echocardiography	**15%**	6
Ejection fraction improvement	**30%**	12
NYHA class improvement	**35%**	14
Quality of life, evaluated by specific questionnaires	**5%**	2
Walking test	**7.50%**	3
Other (please specify)	**7.50%**	3
Total		40

Q19 What succession of steps do you follow in case of CRT non-responders?

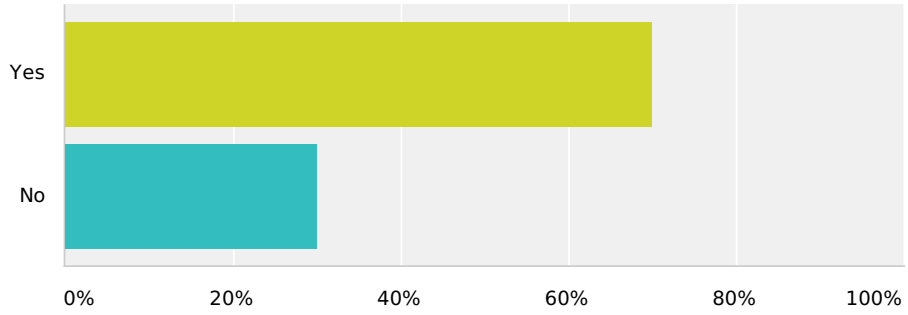
Answered: 40 Skipped: 1



	Step 1	Step 2	Step 3	Step 4	Step 5	Total
Reassessment of drug therapy	**47.50%** 19	**47.50%** 19	**0%** 0	**2.50%** 1	**2.50%** 1	40
Pacing parameters optimization	**55.00%** 22	**42.50%** 17	**2.50%** 1	**0%** 0	**0%** 0	40
Repositioning of the LV lead	**0%** 0	**3.13%** 1	**65.63%** 21	**25%** 8	**6.25%** 2	32
Use a multipolar (i.e. more than 2 poles) LV lead	**0%** 0	**3.33%** 1	**36.67%** 11	**43.33%** 13	**16.67%** 5	30
Use high septal RV stimulation instead of an appex lead	**0%** 0	**3.45%** 1	**6.90%** 2	**24.14%** 7	**65.52%** 19	29

Q20 Do you see the multipolar (i.e. more than 2 poles) LV pacing lead becoming the standard of care fo a CRT implant ?

Answered: 40 Skipped: 1

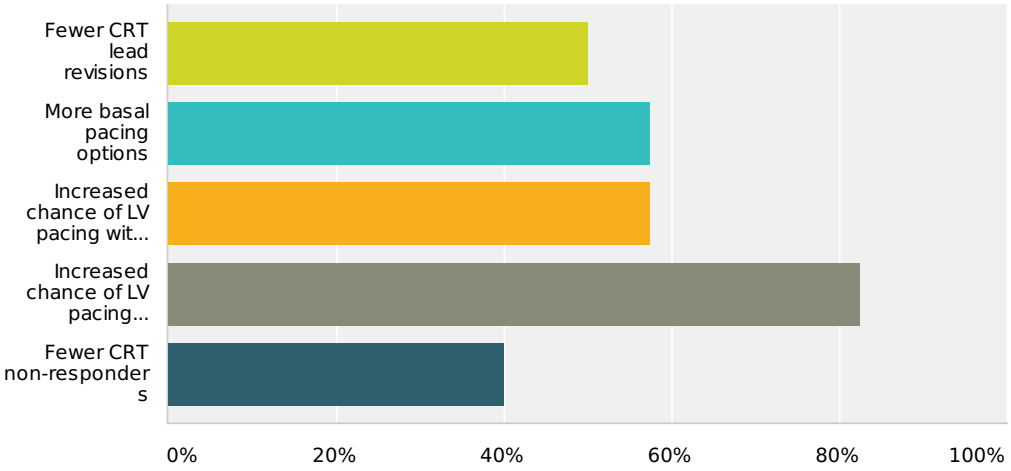


Answer Choices	Responses	
Yes	**70%**	28
No	**30%**	12
Total		40

If yes go to Q14 (0)

Q21 What are your arguments for using multipolar (i.e. more than 2 poles) LV pacing leads as a standard of care for a CRT-D implant?

Answered: 40 Skipped: 1



Answer Choices	Responses	
Fewer CRT lead revisions	**50%**	20
More basal pacing options	**57.50%**	23
Increased chance of LV pacing with low pacing thresholds	**57.50%**	23
Increased chance of LV pacing without phrenic nerve stimulation	**82.50%**	33
Fewer CRT non-responders	**40%**	16
Total Respondents: 40		