

Key Questions

For each voting question, please use the following scale identifying your level of confidence, with a score of 1 being low or no confidence, and 5 representing high confidence.

1	—	2	—	3	—	4	—	5
<i>Low</i>				<i>Intermediate</i>				<i>High</i>
<i>Confidence</i>								<i>Confidence</i>

Using this scale, please rate your confidence in the clinical literature for each question and cite the literature and rationale for your score. A score of ≥ 2.5 is considered intermediate confidence that there is robust clinical literature to support the question.

1. How do you rate the quality of evidence supporting use of CRT in patients with a QRS < 130 ms?
 - a. Should CRT be contra-indicated for use in patients with QRS durations < 130 ms?
2. How do you rate the quality of evidence supporting use of CRT in heart failure patients with EFs $< 35\%$ but with non-LBBB and QRS durations 130-149 ms?
 - a. In your opinion, is QRS morphology a defining parameter for CRT use?
 - b. If so, based on your review of the evidence, should this group of patients have CRT implementation restricted to NYHA class III-ambulatory IV?
 - c. Is there any basis, in your view, for CRT to be employed in such a group but limited to those who are on optimal medical treatment and yet still being frequently hospitalized?
3. How do you rate the quality of evidence for the use of CRT in patients with LBBB, QRS > 150 ms and with NYHA classes II-ambulatory IV?
 - a. Is CRT justifiable for a patient with these characteristics but Class I HF?
 - b. If so, based on what evidence?
4. Would you agree that NYHA class is a differentiating factor for CRT candidacy?
 - a. If so, do you believe NYHA classification represents crucial documentation within a medical record?
5. How do you rate the quality of evidence regarding the use of CRT in patients with Class I HF, LBBB, QRS > 150 ms, **EF $\leq 30\%$ on optimal medical therapy and an ischemic cardiomyopathy etiology?**
6. How do you rate the quality of evidence in support of CRT use for patients with EFs $< 50\%$, but not in need of pacing?
7. How do you rate the quality of evidence in support of CRT for patients with EFs 35-50% AND a need for pacing?
 - a. Does the potential for preservation of EF via CRT outweigh the risks of complications with CRT implant as compared to standard pacing and monitoring for progressive loss of LV function +/- increasing dyssynchrony?

- b. How would you rate the quality of evidence in support of CRT use for patients with EFs < 50% and Class III-IV HF?
 - c. How would you rate the quality of evidence in support of CRT use for patients with EFs < 50% and Class III-IV HF and with LBBB > 130 ms?
- 8. How do you rate the quality of evidence to support a requirement for at least 40% expected RV pacing in order to proceed with CRT?
 - a. How should such an expectation be documented?
- 9. How do you rate the quality of evidence in support of CRT implementation for patients with atrial fibrillation with HF and with LBBB QRS durations > 130 ms?
 - a. If you feel the evidence is strong, should a provider be required to document his/her strategy toward effective, high frequency biventricular pacing (via AVN ablation or pharmacologic control of rate and PVC frequency)?
- 10. Regarding CRT upgrades, is there a degree of EF loss or an absolute EF % for which an upgrade to CRT from standard pacing is indicated?
- 11. Your expert opinions on current restrictions to CRT mandating > 40 days after an MI are welcomed.
- 12. Your expert opinions on possible restrictions to CRT for non-ischemic cardiomyopathy?
 - a. How do you rate the quality of evidence for or against elapsed medical management periods of 3-9 months?