Programming Overview

Step 1
Assess Chronotropic Competence

Step 2
Prepare Calibration and Sensor Baseline

Step 3
Optimize Sensor Trending

Rate Adaptive Pacing
A motion-based accelerometer may not always detect when the patient is exercising, potentially resulting in inadequate rate response.

- Riding a bike
- Using a walker
- Holding a grandchild
- Swimming
- Carrying groceries
- Lifting weights
- Working in the garden

RightRate™
A physiologic minute ventilation sensor that is highly correlated with breathing.

- The only sensor clinically proven to restore chronotropic competence.
- VISIONIST X4 is labeled for up to 13.1 years when RightRate is turned on.

Indications and Usage
These Boston Scientific pulse generators have the following contraindications:

- Adaptive-rate pacing is contraindicated for patients exhibiting chronic atrioventricular (AV) nodal conduction block.
- Atrial tracking modes are also indicated for patients who may benefit from maintenance of AV synchrony.
- CRT-P Systems – VISIONIST™, VISIONIST™ X4, VALITUDE™, VALITUDE™ X4, INVIVE™

Contraindications
These Boston Scientific pulse generators have the following contraindications:

- The device is contraindicated for patients with a transvenous cardiac lead system, especially in those with evidence of myocardial ischemia or infarction, because the device may fail to deliver therapy.
- The device is contraindicated for patients who have a separate implanted cardioverter defibrillator (ICD) with transvenous leads.
- Contraindications

These Boston Scientific pulse generators have the following contraindications:

1. 2.0V RA/RV/LV, RA 500Ω, No LATITUDE, 0.4ms pulse width, 100% BiV pacing,
2. Assumes: RAAT, Chronotropic competence is defined by the Model of the Cardiac Chronotropic Response to Exercise.

- The device is contraindicated for patients who have evidence of myocardial ischemia or infarction, because the device may fail to deliver therapy.
- The device is contraindicated for patients who have a separate implanted cardioverter defibrillator (ICD) with transvenous leads.
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Communications
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Patients and Families: 1.866.484.3268
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A Change of Pace
SmartCRT™
Respiration Based Pacing
Heart Rate Score is defined as the height of the tallest atrial histogram bin.

Atrial Activity

73 “Bad” Heart Rate Score

38 “Good” Heart Rate Score

Heart Rate Score was an independent predictor of mortality.  

Heart Rate Score improved with DDDR

Impact of Rate Responsive Programming on survival based on Heart Rate Score

MV was shown to help improve Heart Rate Score

LATITUDE analysis of 67,929 CRT-D patients

Patients with a HR Score ≥ 70 had a 43% 5-year survival rate.

Patients with a HR Score < 30 had a 68% 5-year survival rate.

LATITUDE analysis of 6,164 patients

Patients with baseline Heart Rate Score > 70% significantly improved their Heart Rate Score with DDDR (from 88±9% to 78±15%; P<0.001).

Analysis of 501 patients from the LIFE Study

Blended sensor (MV+XL) resulted in:

- Heart Rate Score reduction of 18%
- Converted almost twice as many patients to Heart Rate Score < 70% when compared to XL only.

Heart Rate Score was an independent predictor of mortality.  

LATITUDE analysis of 6,164 patients

Patients with a HR Score ≥ 70 had a 43% 5-year survival rate.

Patients with a HR Score < 30 had a 68% 5-year survival rate.

Impact of Rate Responsive Programming on Heart Rate Score

( among patients with baseline heart rate score of ≥70%)

18% 10% 26%

P < 0.001 49% P < 0.001

Mean Reduction in HR Score Percentage of Patient Achieving in HR Score <70%