Diagnostic Radiology
(CT scans, fluoroscopy, mammograms, x-rays)

CRHF Technical Services Standard Letter
Rev. 1.0, September 2016, © Medtronic 2016

The information provided in this letter is for healthcare providers and Medtronic representatives and applies to the following Medtronic device models:

<table>
<thead>
<tr>
<th>Model number, model name, description (Non-MRI Conditional devices)</th>
<th>MRI Conditional Device Model number, model name, description</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1501DR ENRHYTHM®, dual chamber IPG</td>
<td>A2DR01 ADVISA DR MRI™ SURESCAN®, dual chamber IPG</td>
</tr>
<tr>
<td>C2TR01 SYNCRA™ CRT-P Cardiac Resynchronization Therapy Pacemaker</td>
<td>A3DR01 ADVISA SR MRI™ SURESCAN®, single chamber IPG</td>
</tr>
<tr>
<td>C4TR01 CONSULTA® CRT-P Cardiac Resynchronization Therapy Pacemaker</td>
<td>RVDR01 REVO MRI™ SURESCAN™, dual chamber IPG</td>
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<tr>
<td>C6TR01 VIVA™ CRT-P Cardiac Resynchronization Therapy Pacemaker</td>
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Diagnostic radiology (CT scans, fluoroscopy, mammograms, x-rays) - Diagnostic radiology refers to the following medical procedures:

- Computed axial tomography (CT or CAT scan)
- Fluoroscopy (an x-ray procedure that makes it possible to see internal organs in motion by producing a video image)
- Mammograms
- X-rays (radiography, such as chest x-rays)

Normally, the accumulated dose from diagnostic radiology is not sufficient to damage the device. If the device is not directly exposed to the radiation beam, no risk of interference with device operation occurs. However, if the device is directly in a CT scan beam, see the following precautions in “CT scan”. Similar interference may be observed for some forms of high-intensity fluoroscopy.

CT scan – A CT scan is a computerized process in which two-dimensional x-ray images are used to create a three-dimensional x-ray image. If the device is not directly in the CT scan beam, the device is not affected. If the device is directly in the CT scan beam, oversensing may occur for the duration of time the device is in the beam. If the device will be in the beam for longer than 4 s, to avoid or mitigate the effects of oversensing, if appropriate for the patient, initiate asynchronous pacing by implementing one of the following precautions:

- Initiate the magnet mode (asynchronous pacing) by placing a magnet over the device.
- Program the device to an asynchronous pacing mode (for example, DOO).

After completing the CT scan, remove the magnet or restore device parameters.
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Continued

Labeling


PATIENT MANAGEMENT GUIDANCE

This document is useful to health care professionals who perform medical procedures on patients with Medtronic implanted cardiac device systems and who consult with the patients’ cardiologists.

Additional comments

For further information please contact the following:

- **Technical questions**: Medtronic Technical Services can answer additional questions regarding these device operations. Device labeling: For additional device-specific guidance, consult the labeling associated with the device available on the Medtronic Manual Library website at [www.medtronic.com/manuals](http://www.medtronic.com/manuals).

- **Patient questions**: Patients who have questions can contact Medtronic Heart Rhythm Patient Services at 1-800-551-5544, Option 3, email at pshelp@medtronic.com, or see [www.medtronic.com/rhythms](http://www.medtronic.com/rhythms) for a variety of resources.