

Deactivating Implantable Defibrillators for Terminally Ill Patients

SUMMARY

Consistent with patient health care directives, "Do Not Resuscitate" orders, or patient wishes, the attending physician for a terminally ill patient with an implanted defibrillator, such as an ICD or CRT-D, may recommend deactivation of defibrillation therapy.

This article discusses the implications of therapy deactivation for terminally ill patients, their family, and caregivers.

ICD: Implantable Cardioverter
Defibrillator

CRT-D: Cardiac Resynchronization
Therapy Defibrillator

CRM PRODUCTS REFERENCED*

LATITUDE[®] Patient Management System,
and all BSC ICDs and CRT-Ds.

*Products referenced herein may not be approved in all geographies. For comprehensive information on device operation, reference the appropriate product labeling.

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Defibrillator Overview

ICD and CRT-D systems include a pulse generator (device) implanted pectorally or abdominally, and one or more insulated wires (leads) that are connected to the device and pass through the venous system to heart tissue. The device contains electronic circuits that monitor a patient's heart activity, and deliver pacing and/or shock (defibrillation) therapy as needed in response to identified arrhythmias.

Defibrillators and Terminally Ill Patients

As a patient's health condition changes during a terminal illness, the heart may become more irritable and prone to arrhythmias. It is possible that terminally ill patients with an implanted device may receive defibrillation therapy with increasing frequency. For this reason, **the attending cardiologist may consider deactivation of defibrillation therapy provided by the device.**

A physician's orders are needed to deactivate the defibrillation therapy function of an ICD or CRT-D. Nursing homes, hospice caregivers, family, or even the patient seeking alteration of device therapy should be referred to the attending cardiologist, who understands the current health status of the patient and can evaluate and explain the potential implications of deactivating defibrillation therapy.

If defibrillation therapy is deactivated, consider the following:

- It may be valuable to obtain a programmer print-out of device status prior to and immediately following deactivation of defibrillation therapy. A notation of this therapy change may be useful for the patient's medical file.
- The pacing function of the device will not be affected by deactivation of the defibrillation therapy function. Pacing therapy will continue to function as programmed and should not cause any discomfort for a terminally ill patient.
- The LATITUDE[®] Patient Management System will automatically alert the designated physician when defibrillation therapy is deactivated for patients monitored remotely with LATITUDE. Therefore, it is important that the designated physician, if different than the physician ordering the deactivation, be contacted so that he/she is aware of recent programming changes, and can monitor accordingly.
- Defibrillation therapy can be re-activated upon physician request. It is important that the patient and his/her caregivers maintain close communication with the attending physician to ensure that device status, including therapy availability, corresponds with the patient's wishes.

If defibrillation therapy is not deactivated, consider the following:

- If the device is programmed to respond to a magnet, placing a magnet over the device will temporarily suspend defibrillation therapy and inhibit shocks for as long as the magnet remains over the implanted device. For further information refer to the **A Closer Look** article entitled *Programming a Boston Scientific Defibrillator to Inhibit Tachy Therapy Using a Magnet*, which is available on Boston Scientific's website.¹
- If the implanted device delivers shocks, persons who are in direct contact with a patient may feel a tingling sensation on the patient's body surface. However, the shocks delivered by the device will not pose a danger to the person in contact with the patient.²

¹Web site path for **A Closer Look** article: bostonscientific.com > Product Performance Resource Center > A Closer Look articles > How to... > *Programming a Boston Scientific Defibrillator to Inhibit Tachy Therapy Using a Magnet*

²McMullan J, Valento, M, Attari, M, Venkat, A. Care of the pacemaker/implantable cardioverter defibrillator patient in the ED. *The American Journal of Emergency Medicine*. 2007; 25: 812-822.