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Technical Insight

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Magnet Use for SJM Implanted Cardioverter-Defibrillators

When a patient with a St. Jude Medical® ICD needs to have his or her high-voltage therapies temporarily disabled for a medical procedure, a magnet may be used as a convenient alternative to temporary programming.

Magnet Mode: If the device is exposed to a constant magnetic field of sufficient strength, the sensing circuitry will be temporarily suspended, thereby disabling any tachyarrhythmia detection. Once the magnetic field is removed, arrhythmia detection is again enabled.

Magnet application will not affect the Bradycardia pacing function – Bradycardia pacing will continue as programmed. Unlike the function of a pacemaker, the brady pacing operation of an ICD is not forced to pace asynchronously when exposed to a magnet.

It should be noted that ICDs can have their magnet response programmed to IGNORE the placement of a magnet and therefore continue to deliver therapy even if a magnet is properly positioned over the device. Be sure to verify that this feature is programmed as required to insure the desired magnet response.

If the patient needs their high-voltage therapies suspended an extended period of time, it is recommended that the device be temporarily programmed to “Tachy Therapy is Disabled” or “Tachy Zones Off” depending on the programmer options for each specific model.

The magnet should be positioned off-center so that the curve of the “donut” magnet is over the top or bottom end of the device as shown below. Improper magnet placement may hinder magnet activation and could lead to undesired delivered therapy.

Electrocautery used in the direct vicinity (typically less than 6 inches) of an ICD could potentially damage the device and further evaluation of the ICD system by the patient’s following physician may be considered.

If you have any questions concerning the use of magnets or suspending device therapy for St. Jude Medical ICD products, please feel free to contact Technical Services at 800-722-3774.

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