Polar Heart Rate Monitors and Implanted Medical Devices

Description
Polar wireless heart rate monitors are commercially available, non-prescription devices designed to monitor intrinsic heart rate. They are comprised of a transmitter (chest strap) and receiver (wristwatch). The chest strap, which includes two electrodes housed within an elastic band, is designed to detect each heartbeat and send a corresponding low-frequency electromagnetic signal directly to the wristwatch. The wristwatch then displays the current heart rate.

Polar heart rate monitor considerations
Occasionally, a pacemaker or defibrillator patient may wear a heart rate monitor to monitor their heart rate during exercise. Because the signals generated by the chest strap transmitter are very low energy, Polar heart rate monitors should not interfere with the functionality of Boston Scientific implantable pulse generators. However, as a precaution, Polar instructions for use state that persons who have an implanted medical device use the Polar heart rate monitor at their own risk. Polar recommends an exercise test under doctor’s supervision to ensure the safety and reliability of the simultaneous use of the implanted device and the heart rate monitor.

It is possible that the heart rate monitor may report an inaccurate heart rate when the pulse generator delivers pacing pulses (stimuli). This can happen if the monitor detects stimuli in addition to heart activity. If the pulse generator is not delivering pacing stimuli, the heart rate monitor should function normally.

Minimizing potential interference
If an implanted pacemaker or defibrillator is suspected of interfering with the use of Polar heart rate monitors, Boston Scientific recommends that the electrodes within the heart rate monitor chest strap be placed on the side of the torso opposite the implant site.

NOTE: Boston Scientific has not evaluated wireless heart rate monitors made by manufacturers other than Polar.