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SHOCKWAVE LITHOTRIPSY (SWL) AND BIOTRONIK DEVICES

Shockwave Lithotripsy is a procedure typically used for patients suffering from renal calculi (kidney stones). The lithotripsy procedure uses a spark gap or an electromagnetic transducer to produce a shock wave strong enough to break down the kidney stones.

Due to the strong electrical impulse that can originate from the lithotripsy, Biotronik pacemakers may be inhibited by the electrical signal. Tracking of the electrical impulse may also be possible, which would cause the device to pace the patient at the upper tracking rate.

In order to minimize potential interactions, Biotronik recommends the following:

- Reprogram the device to a single chamber mode to prevent tracking at the upper rate
- Turn off rate response in the device
- If the device is an ICD, place a magnet over it throughout the procedure to prevent inappropriate detection and therapy
- Deliver the shockwave synchronously with the patient's R-wave and if this is not possible, program the device to an asynchronous pacing mode such as VOO.
- Deliver the shockwave so the focal point is directed at least six inches away from the pacemaker or ICD generator
- Monitor the patient's cardiac status during the procedure and have necessary equipment available should adverse effects occur.
- Conduct a thorough device check after the lithotripsy procedure in order to assess any device damage
- After the lithotripsy is completed, reprogram the device to its optimal settings for the patient

Please contact Technical Services for additional questions: 1-800-284-6689

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