



The Biber Protocol ®

Steps for using NMES with a Pacemaker

WARNING: DO NOT USE NMES WITH A DEFIBRILLATOR

1. Contact the cardiologist. Introduce your self and explain that you are seeing his/her patient for dysphagia and would like to utilize NMES with placement in the submental region only, at a frequency of 50 Hz and a phase duration that may range from 130 usec to 400 usec. Tell him you will be setting up an appointment with the pacemaker rep for interrogation and to check for interference. He may say that is unnecessary and give you permission to proceed in which case just ask if he/she would mind sending something in writing, i.e. a script that states “ok to proceed with NMES”.

If he wants you to proceed with the testing then continue with the following steps:

2. All patients have a pacemaker card. On the back of the card is a 1 800 number for the company. Call the company, tell them where your facility is located and ask for the rep for that area to contact you regarding patient _____. If they ask why, explain it is for an interrogation and interference test.

3. When the rep contacts you explain that you want to use NMES on patient _____ and tell them you have spoken with the cardiologist and you would like to see what their availability is to come by and do an interrogation and test for interference. This is a free service; there is no cost to you or the patient. They are typically happy to oblige, it is a part of their job. They are often in the area seeing patients; in the OR or in doctor’s offices.

4. When the rep comes they will set the patient up and interrogate the pacemaker. Meantime you can have the patient with electrodes in place ready to go. The rep will place a magnet over the pacer, this will prevent a shock from occurring but still allows the pacer to function. Explain to the patient you want to go as high as you can so that you are confident that no matter what the level, there will not be a problem. Set the device with the standard parameters unless they are a head and neck cancer patient (higher phase duration) and try to get them to the max

amplitude. Explain it may be uncomfortable but it will only be for 10 sec. In every case I have done I find that they can all tolerate the max amplitude with this explanation.

5. Turn the stim on and go up to the max. The rep will have a digital display that will tell you if there is interference. If there is then you know not to proceed and no harm done. If there isn't then you can feel confident. Ask for a print out of the graph and you and the rep sign it. Write the date and the parameters used and document in chart as well. For ex: Guidant rep Mary smith provided pacemaker interrogation and interference testing for NMES in the submental region for potential treatment of dysphagia. Equipment tested at a frequency of 50 Hz, phase duration of 180 usec in the submental region with no interference noted.

6. Send a copy of your note to the cardiologist and proceed with treatment.

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