

APR 30 1998

K971377

510(k) SUMMARY  
GREATBATCH SCIENTIFIC MR COMPATIBLE LARYNGOSCOPE

**Submitter Name:** Greatbatch Scientific  
Division of Wilson Greatbatch Ltd.

**Submitter Address:** 9645 Wehrle Drive  
Clarence, New York 14031

**Contact Person:** Gary J. Sfeir, RAC

**Phone Number:** 716.759.5655

**Facsimile Number:** 716.759.5654

**Date Prepared:** 13 April, 1998

**Device Trade Name:** Greatbatch Scientific MR Compatible  
Laryngoscope

**Device Common Name:** Laryngoscope

**Classification Name:** Rigid Laryngoscope

**Predicate Devices:** Optus Laryngoscope

**Device Description:** The Greatbatch Scientific MR Compatible Laryngoscope is available in standard and autoclavable 8.0mm, 70° angle.

**Intended Use:** For use in endoscopic visualization and surgery on the trachea, pharynx and larynx in a MR or an interventional MR environment, not to exceed a 1.5 static magnetic field.

**Device Technological Characteristics and Comparison to Predicate Devices(s):** The device technological characteristics are similar in design to the predicate device

**Performance Data:** The device was tested for MR Compatibility and was found to be acceptable for use in a 1.5 static magnetic field. See attached MR Safety Testing Summary.

**Conclusion:** The Greatbatch Scientific MR Compatible Laryngoscope as designed can be used in a MR or an interventional MR environment not to exceed a 1.5 Tesla static magnetic field.

**GREATBATCH SCIENTIFIC  
MR COMPATIBLE LARYNGOSCOPE  
MR SAFETY TESTING SUMMARY**

**1. Magnetic Attraction and Torque**

Static field strength-	1.5 Tesla / GE Signa 64 MHz MR System
Type of test-	String deflection
Observed deflection -	Very slight
Observed torque -	5 degrees

**2. Artifact**

Static field strength -	1.5 Tesla / GE Signa 64 MHz MR System
Sequences -	1
Amount of distortion:	

<u>Sequence</u>	<u>axial plane</u>	<u>sagittal plane</u>
FSPGR	++	++

++ artifact same as the device

**3. RF Heating**

**A. Phantom:**

Type of phantom -	A 45 liter fluid filled rectangular shaped plastic Plexiglas phantom
Type of RF Coil -	Body coil
SAR applied -	1.1 W/kg
Length of time -	26 minutes
Maximum temperature rise observed -	1.1°C

**4. Gradient Induced Voltage**

No phantom tests were conducted.



Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

APR 30 1998

Mr. Gary J. Sfeir  
Greatbatch Scientific, Ltd.  
4100 Barton Road  
Clarence, NY 14031

Re: K971377  
Magnetic Resonance (MR) Compatible Laryngoscope  
Regulatory Class: I (one)  
Product Code: 73 CCW  
Dated: February 3, 1998  
Received: February 4, 1998

Dear Mr. Sfeir:

We have reviewed your Section 510(k) notification of intent to market the device referenced above and we have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

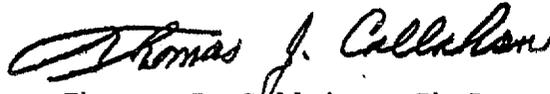
If your device is classified (see above) into either class II (Special Controls) or class III (Premarket Approval), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 895. A substantially equivalent determination assumes compliance with the current Good Manufacturing Practice requirements, as set forth in the Quality System Regulation (QS) for Medical Devices: General regulation (21 CFR Part 820) and that, through periodic (QS) inspections, the Food and Drug Administration (FDA) will verify such assumptions. Failure to comply with the GMP regulation may result in regulatory action. In addition, FDA may publish further announcements concerning your device in the Federal Register. Please note: this response to your premarket notification submission does not affect any obligation you might have under sections 531 through 542 of the Act for devices under the Electronic Product Radiation Control provisions, or other Federal laws or regulations.

Page 2 - Mr. Gary J. Sfeir

This letter will allow you to begin marketing your device as described in your 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801 and additionally 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4648. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its internet address "<http://www.fda.gov/cdrh/dsmamain.html>".

Sincerely yours,



Thomas J. Callahan, Ph.D.  
Director  
Division of Cardiovascular,  
Respiratory, and Neurological Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

SECTION 4

INDICATIONS FOR USE

510 (k) Number (if known):

K971377

Device Name:

Greatbatch Scientific MR Compatible  
Laryngoscope

Indications For Use:

The Greatbatch Scientific MR Compatible Laryngoscope is intended for use in endoscopic visualization and surgery on the trachea, pharynx and larynx in a MR or an interventional MR environment, not to exceed a shielded 1.5 Tesla magnet.

(PLEASE DO NOT WRITE BELOW THIS LINE - CONTINUE ON ANOTHER PAGE IF NEEDED)

CONCURRENCE OF CDRH; OFFICE OF DEVICE EVALUATION (ODE)

PRESCRIPTION USE \_\_\_\_\_

OR

OVER-THE-COUNTER USE \_\_\_\_\_

*Thomas J. Callahan*

(OPTIONAL FORMAT 1-2-96)

(Division Sign-Off)  
Division of Cardiovascular, Respiratory,  
and Neurological Devices

510(k) Number K971377