Wi-Fi No Threat to Implanted Cardiac Devices

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CHICAGO — The mushrooming proliferation of wireless computer networks poses no clinically significant threat to pacemaker or implantable cardioverter defibrillator users, Dr. Fritz Mellert said at the annual scientific sessions of the American Heart Association.

Dr. Mellert, a cardiac surgeon at the University of Bonn (Germany), placed 25

pacemakers and 22 implantable cardioverter defibrillators made by all of the major device manufacturers at varying distances from wireless local area network (WLAN) transmitting antennas in order to study the potential for electromagnetic interference with device function. He subjected the cardiac devices to WLAN transmitting powers of both 100 mW, the upper limit in Europe, and 1,000 mW, the maximum output power permitted by the U.S. Federal Communications Commission.

The good news: All key device programming and telemetry capabilities proved completely immune to interference from WLAN transmissions in his study, which was conducted free of commercial funding.

"Electro-dense shielding, protection algorithms, and sophisticated programming protocols effectively immunize modern devices against Wi-Fi interference. No patient must be fearful when using Wi-Fi in public or a hotel," the surgeon said.

He added, however, that he found that the high-output WLAN permitted in the United States can interfere with certain noncritical pacemaker programming functions, including emergency VVI pacing, when the Wi-Fi antenna is situated less than 10 cm from the device. That's an unlikely scenario, but he recommended, to be on the safe side, that high-output antennas and Wi-Fi access points not be located in or adjacent to outpatient pacemaker clinics.

DETROL LA is the #1 prescribed brand for OAB*—with **BIG REDUCTIONS** in OAB symptoms^{1,2}

Total patient population¹ ≥5 urgency incontinence episodes/week P=.0001

P=.0001

Placebo

33%
(n=507)

DETROL LA
4 mg qd

71%
(n=507)

Severe urgency incontinence population² 21 to 168 urgency incontinence episodes/week P=.022

Placebo
30%
(n=210)

DETROL LA
4 mg qd
68%
(n=171)

Van Kerrebroeck et al. *Urology*. 2001;57:414-421.¹ A 12-week, placebo-controlled OAB study. See full study description on next page.

Landis et al. *J Urol*. 2004;171:752–756.² A post hoc subgroup analysis of Van Kerrebroeck et al. See full study description on next page.

DETROL LA is indicated for the treatment of overactive bladder with symptoms of urge incontinence, urgency, and frequency. DETROL LA is contraindicated in patients with urinary retention, gastric retention, or uncontrolled narrow-angle glaucoma and in patients who have demonstrated hypersensitivity to the drug or its ingredients. DETROL LA capsules should be used with caution in patients with clinically significant bladder outflow obstruction, gastrointestinal obstructive disorders, controlled narrow-angle glaucoma, and significantly reduced hepatic or renal function. Dry mouth was the most frequently reported adverse event (DETROL LA 23% vs placebo 8%); others (≥4%) included headache (DETROL LA 6% vs placebo 4%), constipation (DETROL LA 6% vs placebo 4%), and abdominal pain (DETROL LA 4% vs placebo 2%).

*Source: IMS NPA, based on total US prescriptions of antimuscarinics for OAB from October 2001 to December 2005

†Source: IMS Midas Global Sales Audit, Verispan longitudinal data, based on total prescriptions of DETROL and DETROL LA for OAB from April 1998 to December 2005.

