**AGREEMENT BETWEEN A MEDTRONIC PACEMAKER AND LINQ IN REPORTING PAROXYSMAL ATRIAL FIBRILLATION**

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**Objective**: The Medtronic Reveal LINQ insertable cardiac monitor (ICM) is widely used to diagnose and monitor AF. Correlation with Holter monitors has been demonstrated, however validation with continuous recordings of atrial electrograms (AEGMs) is lacking.

**Method**: Reporting of AF was compared in a patient implanted with a LINQ™ and subsequently a dual chamber Medtronic Advisa pacemaker (PM). LINQs were programmed to report AT/AF, and VEGMs >0.3 mV were ensured with each interrogation. PM AEGMs were 0.6-1.2 mV during AF and >2 mV during sinus rhythm.

**Results**: AF increased following PM implant (Ap 94%, Vp 4%). Pace-termination of AF was not enabled. Over 8.5 months, AF burden was 3.4% (PM) and 3.9% (LINQ). Despite remarkable agreement in determination of atrial fibrillation between devices, there were multiple discrepancies between reported AF episodes ~1 hour in duration, with either device reporting increased episodes at times.

**Conclusions**: 1. During paroxysmal AF, discrepancies in reporting AF episodes ~1 hour duration may occur, with increased reporting by either the LINQ or PM. 2. During persistent AF, detection dropout by the LINQ may result in misclassification as paroxysmal AF. 3. LINQ errors may arise from undersensing VEGMs, Lorenz plot criteria, irregular ATs counted as AF. 4. PM errors may arise from undersensing AEGMs during AF, ATR rate criteria. 5. Small errors in the recognition of AF are important in the setting of cryptogenic stroke, where an AF episode 30 seconds in duration may be significant. 6. It is uncertain whether LINQ or PM reports AF more accurately. 7. Both LINQ and PM are highly useful tools to diagnose and monitor AF.