**Finding Some Rhythm – Analysing the Utility of Implantable Loop Recorders in the Waitemata District**

**Background:**

Recurrent syncope or palpitations can provide a diagnostic challenge especially in the absence of data obtained during an event. Implantable loop recorders (ILR) are used to help detect or exclude arrhythmogenic causes. However, these are invasive and can carry complications. We present an analysis on patients in the Waitemata district who have undergone ILR implantation during their inpatient stay.

 **Methods:**

We analysed 78 patients who had ILRs implanted while an inpatient between 2010 and 2024. Indications, patient demographics, resultant diagnoses, and complications from implantation were recorded. Subsequent insertion of permanent pacemaker (PPM), implantable cardiac defibrillator (ICD) or further electrophysiology studies (EPS) were also identified.

**Results:**

Of the 78 patient records analysed, 57 had ILR inserted for syncope, 11 for palpitations, 12 for presyncope and 6 for other indications. 25 patients had a causative diagnosis. Average time to diagnosis was 4.97 months with mean age 53.9

Diagnoses: Ventricular arrythmia (VA) in 4, supraventricular tachycardia (SVT) in 5 and conduction disease as a causative symptom in 11. Atrial fibrillation (AF) was detected in 7 but not found to be the causative diagnosis. 53 were reassured of no arrhythmogenic cause.

11 had PPM insertion, 4 received an ICD and 4 subsequently required EPS.

**Conclusions:**

ILRs are useful adjuncts in diagnosing arrythmia when other investigations do not yield a diagnosis. When they show no clear cardiogenic cause, they provide reassurance and indication that non-cardiac aetiologies may need to be investigated. There is a small complication rate, however and they must be used judiciously.