Background: Sustained ventricular arrhythmias (VT) are common in patients receiving continuous flow left ventricular assist devices (LVAD). The impact of early (<30 days post-LVAD) vs. late VT (>30 days post-LVAD) on clinical outcomes remains unclear.

Objective: We evaluated outcomes associated with early and late VT following LVAD implantation using metaanalytic techniques.

Methods: Studies assessing the impact of VT (defined as sustained VT ≥30 sec or requiring ICD therapy) on survival and right ventricular (RV) failure after LVAD implantation were included. Mantel-Haenszel random effects model was used to compute overall effects. Study heterogeneity was evaluated using the I² index.

Results: 12 observational studies including 2389 LVAD patients (age 56 years) assessed the impact of early VT, late VT, and any VT. 36% were implanted for destination therapy, 53% had ischemic cardiomyopathy and 71% had an ICD. Mean follow-up was 19.4 months of LVAD support. Early VT [OR 1.88, 95% CI 1.36-2.58, p = 0.0001, Figure 1A] and any VT [OR 2.09, 95% CI 0.97-4.51, p = 0.06, Figure 1B] were associated with worsening survival, whereas late VT [OR 0.79, 95% CI 0.44 - 1.41, p=0.43] was not. Presence of late VT [OR 1.99, 95% CI 1.05 - 3.77, p=0.03, Figure 2] or any VT [OR 1.99, 95% CI 1.05 - 3.77, p=0.03] were associated with RV failure.

Conclusion: In LVAD patients, VT was associated with increased mortality and RV failure. Early VT appears to have a strong association with mortality whereas late VT was associated with development of RV Failure.

Poster Session I  S133

PO-621-05

MAGNETIC FIELD INTERACTIONS BETWEEN CONTEMPORARY ELECTRONIC CONSUMER PRODUCTS AND CARDIAC IMPLANTABLE ELECTRONIC DEVICES

Jay Sengupta MD, FHRS; Kathryn Xu BS; Susan Casey RN; Joel Pelletier BSEE; Wyatt K. Stahl BS, BSE, BSEE, CCDS; Neal Peterson; Andrew James Taylor BS, CCDS; James M. Kippola BSEE; Elizabeth Steele MS and Robert G. Hauser BS, MD, CCS, FHRS, CCDS

Background: Evolving electronic technologies such as cell phones, smartwatches, and earphones may contain magnets to facilitate inductive fast charging and other functions. The interaction between such products and the magnet mode features of cardiac implantable electronic devices (CIED) is unclear.

Objective: Characterize the maximum static magnetic fields of common inductive fast charging products (IFC-P) and assess their interaction with CIEDs from Medtronic and Boston Scientific.

Methods: A Gauss (G) meter measured the maximum static magnetic field for each IFC-P. To test for magnetic interaction (rate change or auditory beep), an IFC-P was positioned over a CIED that was immersed in a standardized torso simulator filled with physiologic saline together with its leads; interactions were recorded at the surface (0 cm) and at distances of 0.5, 1.0, and 1.5 cm or greater until no magnet interaction was observed.

Results: The iPhone 12 Pro produced nearly 3x the static magnetic field measured at the surface of the iPhone XR, and almost 2x that of the Galaxy S6; the highest maximum static magnetic field was 1320 G from the Apple Watch Series 6. Magnetic interactions are shown in the table; all IFC-P devices produced a magnet interaction at the surface but only the Apple Watch Series 6 produced an interaction at 1.5 cm and this response was intermittent and brief. The Apple Watch Series 6 and 2nd generation AirPods required very precise placement over the CIED to produce a magnet response despite their higher measured maximum magnetic fields.

Conclusion: While the iPhone 12, Apple Watch Series 6, and 2nd generation AirPods may cause magnet interactions with CIEDs, interactions are unlikely if these products conservatively are not within 15 cm (6 inches) of an implanted pacemaker or defibrillator. This is in accordance with industry standards and recommendations as the magnetic field strength reduces dramatically with increasing distance.

PO-621-06

SHORTER LEARNING CURVE OF LEFT BUNDLE PACING COMPARED TO HIS BUNDLE PACING

Matthew O’Connor BChir, MA, MB; Omar Hatem Mohamed Amin Riad MBChB, PhD; Daniel Hunnybun; Ruì Shi MD, PhD; Julian W.E. Jarman MBBS; John P. Foran MBBS; Emily-Jane Cantor MBChB; Vias Markides MBBS, MD and Tom Wong

Background: Conduction system pacing (CSP) with His bundle pacing (HBP) or left bundle branch pacing (LBP) is an elegant method to provide single ventricular lead cardiac resynchronisation. The implant procedure utilises specialised