TEMPORAL TRENDS AND CLINICAL CORRELATES OF ICD IMPLANTATION AMONGST PATIENTS ACTIVELY LISTED FOR HEART TRANSPLANTATION

Poster Contributions
Poster Hall B1
Monday, March 16, 2015, 9:45 a.m.-10:30 a.m.

Session Title: Outcomes and Cardiac Device Therapy
Presentation Number: 1253-242

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Background: Implantable cardioverter defibrillator (ICD) implantation between listing and heart transplantation (HT) is associated with improved rates of survival to transplantation. We examined the temporal trends and clinical correlates of ICD implantation practices amongst HT candidates who do not have ICDs at the time of listing.

Methods: Adults (≥18 years) who underwent first time HT in the US between January 1, 2000 and December 31, 2012 were identified from the UNOS/OPTN registry. Of the 18,590 transplanted patients, 6,884 did not have an ICD at listing and constituted our study cohort.

Results: Among the 6,884 patients studied (age 49±13.5 years; 72% males; 71% Caucasians), 766 (11%) subsequently underwent ICD implantation prior to HT (median wait time of 79±134 days). Patients who received an ICD were more likely to be listed as UNOS status II (60% vs. 43%; p<0.0001), less likely to be supported with an LVAD, IABP, or ECMO (4% vs. 7%, p=0.001), and had a longer wait time (194 vs. 70 days; p<0.001) as compared to those who did not receive an ICD. The rate of ICD implantation during the wait time between listing and HT has remained constant at ~10% per year without any temporal improvement (Fig).

Conclusion: While the clinical correlates for ICD implantation after listing may seem appropriate, a substantial proportion (~90%) of these patients do not receive ICDs prior to HT. Further analyses are required to determine factors that impact the decision to implant ICDs in patients without an ICD at listing for HT.