

smoother and easier. A total of 106 procedures (including insertion of PPM, AICD, BiV-AICD and loop recorders, battery change, etc.) were carried out from the start of the program. The immediate complication rate was 6.6% (2 pneumothorax, 1 CS dissection, 1 hematoma, 1 lead dislodgement, 1 lidocaine toxicity, 1 PEA) with no mortality. 1.8% (2 patients) required intubation during the procedure (lidocaine toxicity, PEA). No device infection related to procedure (upto 6 months) was noticed. Device implant programs can be established with relatively low cost for institutions without cardiac cath lab. In an era of controlling the spiraling costs of medical care, cutting the cost while delivering the guideline guided therapy to needy patients is possible. Our experience can be replicated with success at other smaller centers facing similar challenges.

Procedure	Male	Female	Total
AICD/BiV	22/7	7/5	41 (29/12)
PPM	22	25	47
Loop	2/8	4/4	18 (6/12)
Total	61	45	106

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#### 14. Incidence, associated factors and patient outcomes of heart failure complicated by ventricular arrhythmia in Saudi Arabia: From heart function assessment registry trial in Saudi Arabia (hearts)

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Arrhythmia is a common finding in heart failure patients. It has a greater impact on prognosis in those patients, especially ventricular arrhythmia type. Although there are some studies about PVCs and NSVT in heart failure, few data are available regarding sustained VT/VF in heart failure. In this study, our aim was to investigate the incidence of sustained VT/VF, the factors associated with its occurrence and prognosis in hospitalized heart failure patients. We hypothesized that heart failure patients are prone to develop ventricular arrhythmia which can adversely affect the prognosis. Prospective study of 2610 patients admitted in 18 government hospitals with HF between October 2009 and December 2010. Patients were categorized as having ventricular arrhythmia (VA) if they experienced either sustained ventricular tachycardia (VT) or ventricular fibrillation (VF) or both during hospitalization. Of 2610

patients with HF enrolled in the HEARTS registry, 110 (4.2%) were diagnosed with VA. The vast majority (97%) occurred in patients with heart failure with reduced ejection fraction (HFrEF). Factors associated with an increased risk of developing VA during hospitalization for HF are arrhythmia (OR 8.2; 95% CI 3.3–20.4), STEMI (OR 2.6; 95% CI 1.1–6.3) as precipitating factors for HF, and systolic blood pressure <90 mm Hg at presentation (OR 3.1; 95% CI 1.3–7.4). Adverse in-hospital outcomes including recurrent HF, hemodialysis, shock, sepsis, major bleeding, intra-aortic balloon pump (IABP) and pacing were higher for patients with VA ( $P \leq .001$  for all comparisons) and signified a poor prognosis. The in-hospital, 30-days, 1-year, 2-year, and 3-year mortality rates were significantly higher in VA patients compared with non-VA patients ( $P \leq .001$  for all comparisons). VA was found in a small percentage of hospitalized heart failure patients. However, it was associated with remarkably high rates of adverse events and increased mortality rate. Information from patient's medical history and clinical presentation parameters can predict VA development in HF patients. Evaluating those associated factors would help in identifying patients at high risk for VA.

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#### 15. Sensitivity in visualizing vegetations in cardiac lead-induced endocarditis: A comparative study between transesophageal vs. transthoracic echocardiography

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Despite advancement in sterile cardiac device implantation techniques, wound infections and/or bacteremia remain a significant problem. The presence of a vegetation in lead-induced endocarditis (LIE) is a critical factor that determines the management. Transthoracic (TTE) and Transesophageal (TEE) Echocardiography are two different cardiac modalities that are used for the detection of lead vegetation. However, it is not yet clear which of the two has the highest diagnostic accuracy. We aim to identify which of the two has the highest sensitivity. In addition, we aim to correlate the existence of a vegetation with blood and wound culture results. We conducted a chart review in 113 patients whom underwent lead extraction at Prince Sultan Cardiac Center in Saudi Arabia during the period of Jan, 2002 to Jul, 2015. Six patients underwent lead extraction twice, increasing the number to be a total of 119 cases. Out of the study cohort, we include 38 patients who had both TTE and TEE done prior to lead extraction. Data regarding TTE, TEE, as well as blood and wound cultures were collected from echocardiography and microbiology lab reports using a