OBJECTIVES: Implantable cardioverter defibrillator (ICD) is considered a lifelong therapy for the prevention of sudden cardiac death. However, it is still unresolved if patients who never experienced an appropriate ICD intervention during first generator longevity really need to undergo device replacement. METHODS: In a single-center prospective observational cohort study we examined the time-dependence of first occurrence of ventricular arrhythmias in patients with newly implanted ICD for primary prevention. Primary prevention ICD patients were enrolled at the time of their first implantation and were evaluated thereafter for the first occurrence of appropriate ICD therapy for ventricular arrhythmias. RESULTS: Of 623 ICD recipients, 126 (20,2%) had appropriate ICD therapy. Incidence of first appropriate ICD therapy was 8.2% in the first year post-implant, increased to 13.7% in year 2, while in year 5 it was 28.3% (fig 1). Notably 39 patients received their first ICD appropriate therapy after device replacement. No predictive factors for lower need of ICD therapy could be identified in patients without prior appropriate ICD intervention. CONCLUSIONS: In a primary prevention population the risk of first appropriate ICD device therapy after long-term and necessitating continuing device therapy irrespective of shock-free intervals.

PM09 CAN SEROLOGIC MARKERS OF FIBROSIS PREDICT FUTURE SHOCKS IN ICD RECIPIENTS WITH DILATED CARDIOMYOPATHY? Kanoupiakis P1, Enomoto M2, Kasellas E1, Mavrikas H1, Saloustrous I1, Koutalas E1, Vardas P1, Vernardos M1, Chlouverakis G1, Vardas P1.

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OBJECTIVES: We investigated prospectively whether serum markers of collagen turnover could be used as predictors for occurrence of malignant ventricular arrhythmias in patients with non-ischemic dilated cardiomyopathy (DCM), implanted with an implantable cardioverter defibrillator (ICD) for primary prevention.

METHODS: In a single-center prospective study 50 (1:1) DCM (ICM) alternans may provide early electrocardiographic evidence, thus potentially contributing to the occurrence of ventricular arrhythmias and subsequent SCD. RESULTS: Serum C-terminal propeptide of collagen type I (CIPC), C-terminal telopeptide of collagen type I (CTP), matrix metalloproteinase (MMP)-1, and C-terminal telopeptide of collagen type-I (CITP) were measured as markers of collagen synthesis and degradation in 70 patients with mildly to moderately symptomatic heart failure due to NIDCM (<35%, who received an ICD for primary prevention of SCD. Patients were evaluated for any appropriate ICD delivered therapy, whether shock or antitachycardia pacing, during a 1-year follow-up period. RESULTS: Appropriate device therapies were delivered in 14 of the 70 patients during the follow-up period, with antitachycardia pacing in 2, antitachycardia pacing with shocks in 4, and shocks in 8. Preimplantation MMP-1 levels were significantly higher in patients who had appropriate ICD-delivered therapy than in those who did not have any therapy (27.7±1.6 ng/mL vs. 14.2±2.5 ng/mL, respectively, p<0.001). The same was true for baseline serum concentrations of TIMP-1 and CTP (89±14 ng/mL vs. 58±18 ng/mL, p=0.008 and 0.6±0.9 ng/mL vs. 0.19±0.07 ng/mL, p<0.001, respectively). CONCLUSIONS: Undoubtedly, ECM alterations play a crucial role in the constitution of an arrhythmogenic substrate in NIDCM and, given the availability of therapies to prevent fatal ventricular tachyarhythmias, the quest for factors that have a very good correlation with appropriate ICD discharges in these patients is logical. Our results confirm the role of serum markers of collagen turnover as predictors of arrhythmic events in ICD recipients and could provide an auxiliary tool in this context.

PM08 LONG TERM FOLLOW UP OF PRIMARY AND SECONDARY PREVENTION IMPLANTABLE CARDIOVERTER DEFIBRILLATOR PATIENTS: “REAL-WORLD” DATA FROM THE ISLAND OF CRETE Kanoupiakis P1, Enomoto M2, Kasellas E1, Mavrikas H1, Kasellas E1, Poulou S1, Vernardos M1, Chlouverakis G1, Vardas P1, Vernardos M1, Chlouverakis G1, Vardas P1.

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OBJECTIVES: The beneficial effects of implantable cardioverter defibrillators (ICD) in primary and secondary prevention patients are well established. However, relative scarcity of data exists regarding long-term follow-up outcomes of this population in the context of tertiary hospitals- ICD implantation centres beyond randomized clinical trials borders. The aim of the study was to exhibit “real-world” data and possible differences on mortality and ICD therapies between secondary and primary prevention ICD recipients. METHODS: All patients treated with an ICD, regardless of the underlying cardiac pathology, at the island of Crete were included in the current analysis. The study population was grouped by the type of prevention (secondary or primary) for sudden cardiac death. The primary endpoint was any death. The outcome was occurrence of any ICD delivered therapy (appropriate or inappropriate). RESULTS: A total of 854 (88.6% men) ICD recipients were included. Of these, 623 (73%) patients received an ICD for primary prevention (27%) and 231 (27%) for secondary prevention. During a mean follow-up of 12.4 ± 7.8 years, 177 (20.7%) patients died. The incidence of mortality was 35.5% for secondary prevention patients and 15.2% for primary prevention patients (p<0.001). Ventricular arrhythmia triggered appropriate ICD therapy in 177 (20.7%) patients at last follow-up. The number of primary prevention patients that received appropriate therapy was 126 (20.2%). A comparable risk for inappropriate shocks was observed. CONCLUSIONS: Long-term follow-up of primary prevention patients exhibited a lower risk for all-cause mortality. Both groups showed similar occurrence of inappropriate shocks but secondary prevention patients showed a higher rate of appropriate therapy.

PM010 PHARMACOEPIDEMIOLOGY OF CELLULAR/TISSUE DERIVED PRODUCTS FOR THE TREATMENT OF DIABETIC FOOT ULCERS IN OUTPATIENT CARE SETTINGS Gilligan AM, Waycaster CR, Smith & Neuhef Inc., Fort Worth, TX, USA.

OBJECTIVES: In a single-center prospective observational study we examined the time-dependence of first occurrence of ventricular arrhythmias in patients with newly implanted ICD for primary prevention. Primary prevention ICD patients were enrolled at the time of their first implantation and were evaluated thereafter for the first occurrence of appropriate ICD therapy for ventricular arrhythmias. RESULTS: Of 623 ICD recipients, 126 (20.2%) had appropriate ICD therapy. Incidence of first appropriate ICD therapy was 8.2% in the first year post-implant, increased to 13.7% in year 2, while in year 5 it was 28.3% (fig 1). Notably 39 patients received their first ICD appropriate therapy after device replacement. No predictive factors for lower need of ICD therapy could be identified in patients without prior appropriate ICD intervention. CONCLUSIONS: In a primary prevention population the risk of first appropriate ICD device therapy after long-term and necessitating continuing device therapy irrespective of shock-free intervals.

PM011 PHARMACOEPIDEMIOLOGY OF ADVANCED THERAPIES FOR THE TREATMENT OF DIABETIC FOOT ULCERS IN OUTPATIENT CARE SETTINGS Gilligan AM, Waycaster CR, Smith & Neuhef Inc., Fort Worth, TX, USA.

OBJECTIVES: Utilization of advanced therapies on difficult-to-heal DFUs. METHODS: Retrospective, de-identified electronic medical records from 2007-2013 were extracted from the Intellicure Limited Data Set (I-LDS). The I-LDS extracts records from 96 hospital-based outpatient wound centers. Patient, wound and encounter level characteristics were examined. CONCLUSIONS: CTP utilization was relatively low within outpatient wound centers. Results from this analysis indicate that health care providers are using CTGs on older, more difficult-to-heal DFUs.

PM012 EXAMINATION OF INTERVAL INCIDENCE OF COLORECTAL CANCER (CRC) AT SUBSEQUENT COLONOSCOPY OVER TIME: POPULATION-BASED RETROSPECTIVE COHORT STUDY Ken R1, Aiche CV2, Kirkness CS3, Pulii S2.

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OBJECTIVES: Evidence for surveillance intervals of colonoscopy are primarily based on adenoma recurrence rather than on CRC incidence. Current evidence suggests that due to the overall surveillance colonoscopy among low-risk patients and the underuse among high-risk patients the recommended surveillance intervals may need adjustment. This study aims to tailor surveillance intervals by estimating incidence of CRC at subsequent colonoscopy under diverse circumstances. METHODS: A population-based, retrospective cohort study of patients with a colonoscopy between January 2010 and March 2014 were identified in a well-administered database of colonoscopy screening and surveillance. The endpoint of interest was colorectal cancer incidence (both proximal and distal). RESULTS: A total of 32,257 patients, the prevalence of CRC at baseline colonoscopy was 8.2% for the patients with follow-up. The benchmark risk was determined by the overall incidence of CRC (0.33%) for low-risk patients. Men with high risk or CRC history exceeded this benchmark in approximately 5 and 10