Methods: A prospective cohort study was conducted in a pre-specified subgroup of 67 patients within a single, tertiary referral centre as part of the larger P4 (Post Partum, Physiology, Psychology, and Paediatric Follow Up) study. 35 patients (52%) had an uncomplicated pregnancy, whilst 32 patients (48%) had a pregnancy complicated by HDP. Women with pre-existing hypertension were excluded. The mean patient age was 32 years (range 22–44 years). Transthoracic echocardiography (TTE) was performed six months post partum by blinded experienced echocardiography technicians and reported by a single blinded cardiac imaging cardiologist.

Results: There were significantly structural and functional differences noted between the two groups of women at six months post partum despite all of the echocardiographic parameters falling within the normal range. In comparison with women who had an uncomplicated pregnancy, women who had a pregnancy complicated by HDP demonstrated a thicker interventricular septum (0.38 mm vs 0.44 mm; P=0.007) and posterior wall thickness (0.38 mm vs 0.44 mm; P=0.007), also as CO (0.38 mm vs 0.44 mm; P=0.007) and Vcf (0.38 mm vs 0.44 mm; P=0.007), while TVR was significantly higher (P<0.001). The values of the index of the left ventricular mass index (LV mass index) were significantly lower (P<0.001) than in the 3rd group (1.13±0.12, P<0.001). Among women with HDP, 22 patients (37%) had a history of chronic hypertension, 19 patients (31%) had gestational hypertension, and 2 patients (3%) had preeclampsia.

Conclusions: Women with hypertensive disorders of pregnancy demonstrated a significant decrease in circumferential strain and strain rate. No significant differences in any parameters of vascular function were found between groups.

P3259 | BENCH
Early markers of atherosclerosis and cardiovascular risk in women with hypertension and hypothyroidism
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Purpose: To examine influence of subclinical hypothyroidism on early markers of atherosclerosis and cardiovascular risk in women with hypertension.

Methods: Women (n=134), mean age 56.8±0.5 years with hypertension were included into this study in dependence from thyroid function: 1st group (n=33) with subclinical hypothyroidism, 2nd group (n=32) with subclinical hypothyroidism receiving levothyroxin treatment, 3rd group (n=34) with overt hypothyroidism and 4th group (n=35) with euthyroidism. Measurements were made of body mass index (BMI), thyrostimulating hormone (TSH), free T4, lipid panel, carotid artery intima-media thickness (IMT) and ankle-brachial index (ABI). Also SCORE scales for atherosclerosis and cardiovascular risk were calculated.

Results: The plasma concentration of TSH was closely associated with cholesterol levels (r=0.59; P<0.01) and LDL-cholesterol (r=0.55; P<0.01). The IMT in the 1st group was more (0.86±0.04 mm, P<0.05) than in the 2nd (0.87±0.03 mm) and 4th (0.83±0.04 mm) groups. ABI in the 1st (0.95±0.11) and 4th (1.00±0.11) groups was significantly lower than in the 3rd (1.13±0.13, P<0.01) group. We found higher prevalence of high risk in women with subclinical hypothyroidism compared with the 4th group (euthyroidism) – 36.4 vs 11.4% by SCORE scale and we didn't find any patients with very high risk. After we reestimated risk including results of sonography examination carotid artery and low ankle-brachial index (ABI), we found increasing prevalence of high and very high risk in women with subclinical hypothyroidism from 36.4 to 75.7%.

Conclusion: Our results showed that subclinical hypothyroidism just like overt hypothyroidism influences on early markers of atherosclerosis and cardiovascular risk in women with hypertension. Hypothyroidism has association with increased level of total cholesterol, LDL-cholesterol, IMT, decreased ABI. Women with hypertension, subclinical hypothyroidism and levothyroxin treatment have better lipid profile and lower cardiovascular risk compared with hypothyroid patients without levothyroxin replacement therapy.
rate with contemporary detection programming and proprietary SVT discrimination algorithms. The extent to which SVT algorithms alone reduce inappropriate therapies is incompletely understood.

**Purpose:** To assess the contribution of SVT discriminators in reducing inappropriate ICD therapies in the setting of modern day delayed high-rate detection programming.

**Methods:** The PainFree S3 trial included 2,770 patients (79% male, 44% ischemic, 69% primary prevention) with a single or dual-chamber ICD or a cardiac resynchronization defibrillator. Patients were followed for 22±9 months. Devices were programmed with VF and VT zones, with VT therapies programmed ON in 62% of patients (primary prevention: 58%; median rate: 171 bpm). SVT discriminators were programmed ON in 97% of patients. All stored sustained VT/VF and SVT episodes were adjudicated by an independent physician committee. Stored RR-intervals were post-processed to simulate SVT discriminators OFF with and without delayed high-rate detection criteria (VF zone only, 30/40 at 188 bpm) and compared to events recorded in the study.

**Results:** There were 3,273 recorded true SVT episodes of which 115 resulted in an ICD shock and 113 received ATP without shock (2-year inappropriate shock and therapy rates of 3.0% and 4.0%, respectively). Therapy was appropriately withheld for the remaining 3,045 SVT episodes. Had SVT discriminators been deactivated and without high rate detection delay, the 2-year inappropriate therapy rate would have been 22.4% (Figure). With SVT discriminators OFF and delayed high-rate detection ON, 251 SVT episodes would have received therapy with a 6.3% inappropriate therapy rate.

**Conclusions:** Use of SVT discriminators markedly reduced the rate of inappropriate ICD therapy even in the setting of delayed high-rate detection settings. Turning off SVT discriminators would have resulted in an overall increase in the inappropriate ICD therapy rate by 63% and 52% with and without delayed high detection programming, respectively.

**Acknowledgement/Funding:** Medtronic

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**P3262 | BEDSIDE**

**Burden of non-sustained ventricular tachycardias occurring early after an ICD implant: long-term effect on the electrical therapies due to Monomorphic Ventricular Tachycardias**

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Non-sustained ventricular tachycardias (NSVT) are observed frequently among ICD patients with left ventricular dysfunction (LVD). Whether NSVT are related to the type and response to ICD therapies is unknown.

**Objective:** To evaluate prospectively the relationship between NSVT burden and electrical therapies due to monomorphic VT (MVT).

**Methods:** 416 patients with LVD (LVEF < 50%) and standard indications for ICD without Cardiac Resynchronization Therapy were followed for 41±27 months after implant. ICD programming (detection and therapies) was standardized, including antitachycardia pacing (ATP) as first therapy for slow (CL > 390 ms) and fast VT (CL: 250–320 ms). NSVT was defined as any VT of ≥ 30/40 ms) and fast VT with no increase in syncope. We sought to evaluate whether programming practices have changed over time or differ by region or clinic size.

**Results:** During the follow-up, 1,441 MVTs were recorded in 183 patients (primary prevention: 55%; median rate: 171 bpm). The proportion of MVTs that were self-terminating was significantly lower in patients with > 5 NSVT compared to events recorded in the study. A TP was more effective in patients with > 5 NSVT and therapy rates of 3.0% and 4.0%, respectively). Therapy was appropriately withheld for the remaining 3,045 SVT episodes. Had SVT discriminators been deactivated and without high rate detection delay, the 2-year inappropriate therapy rate would have been 22.4% (Figure). With SVT discriminators OFF and delayed high-rate detection ON, 251 SVT episodes would have received therapy with a 6.3% inappropriate therapy rate.

**Conclusions:** Use of SVT discriminators markedly reduced the rate of inappropriate ICD therapy even in the setting of delayed high-rate detection settings. Turning off SVT discriminators would have resulted in an overall increase in the inappropriate ICD therapy rate by 63% and 52% with and without delayed high detection programming, respectively.

**Acknowledgement/Funding:** Medtronic

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**P3263 | BEDSIDE**

**North American compliance with the shock reduction programming recommendations**

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**Background:** Implantable cardioverter defibrillator (ICD) shock reduction programming, through increasing the number of intervals needed to detect (NID) and decreasing the treatment and SVT discrimination zone cycle lengths, is recommended to reduce both inappropriate shocks and heart failure hospitalizations with no increase in syncpe. We sought to evaluate whether programming practices have changed over time or differ by region or clinic size.

**Methods:** All patients implanted between 2006–2016 with Secura, Virtuso and Protecta single or dual chamber ICDs from North America followed through remote monitoring surveillance (CARELINK) were included. Data was accessed 11–29–16. The percentage of ICDs programmed to NID ≥ 30/40 in the VF zone at their most recent and initial CARELINK transmission was documented. This percentage was then stratified by implant year, region (each Canadian Province and Midwest, South, West and New England in the United States), and number of patients per clinic enrolled in CARELINK.

**Results:** 21,556 of the 68,869 (31.3%) patients from 3388 clinics were programmed to an NID ≥ 30/40 from the most recent remote transmission. The percentage of ICDs programmed to an NID ≥ 30/40 increased incrementally dependent on implant year (figure). The proportion of ICDs with the NID programmed ≥ 30/40 differed significantly by region ranging from 25% to 79%. There was no relationship between the number of patients enrolled in CARELINK in each specific clinic and the percentage of patients with an NID ≥ 30/40.

**Conclusions:** Only 31.3% of patients are programmed with a VF NID ≥ 30/40. This is most likely to occur in more recently implanted devices. Across North America, there is a significant variation in the percentage of patients who are programmed to an NID ≥ 30/40.

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**BEST POSTERS IN STEMI: CHALLENGES AND PROGNOSIS**

**P3265 | BEDSIDE**

**T1 and T2 mapping cardiovascular magnetic resonance is not able to differentiate between infarcted and salvaged myocardium in reperfused STEMI patients**

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**Objectives:** A recent study showed that T2-mapping cardiovascular magnetic resonance (CMR) could distinguish between infarcted and salvaged myocardium in...