NORSKE ABSTRAKTER VED NORDISK-BALTISK KONGRESS

OC-002 Practice and Results of Chronic Total Occlusion (CTO) Program at Haukeland University Hospital

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Study Objectives: Haukeland University Hospital of Bergen has had dedicated CTO operators for more than 10 years. In 2012 we started a dedicated CTO program with training of a new operator. We did a post hoc analysis of CTO procedures over 6 months from September 2012 to March 2013. Total volume of CTO's in our center is about 100/year. **Methods and Materials:** CTO's referred for secondary attempt from our own or other hospitals, or because of complexity scheduled for primary attempt by CTO team, were systematically analyzed. Patients with stable angina, acute coronary syndrome or proven ischemia of more than 10% of the myocardium mass by a non-invasive image diagnostic modality, was accepted. No patients were refused on the basis if CTO characteristics. **Results:** 23 patients with 24 CTO's were registered from August 2012 to March 2013. 11 patients had previous failed attempts. 15 patients had stable angina and 6 patients had acute coronary syndrome. 5 patients underwent noninvasive ischemia tests. Successful PCI with TIMI 3 flow was achieved in 22 of 24 (92%) of the cases. 1 failed case no longer had angina and was not motivated for a 2nd attempt. 1 failed case is scheduled for 2nd attempt in April. Method of success was antegrade in 14 (64%) cases, retrograde in 5 (23%) cases and by dissection- recrossing in 3 (14%) cases. 20 patients had only one attempt by CTO team. 3 patients had more attempts (2, 3 and 4 attempts respectively). Median contrast delivered was 284 ml (mean 320 ml, range 150–716 ml), and median operator time 201 min (mean 192 min, range 76–360 min). Median radiation skin dose was 25.000 µGy/m2 (mean 36.524 µGy/m2, range 9.730– 91.519 µGy/m2). 6 patients had radiation skin dose >50.000 µGy/m2. One patient experienced local skin reaction (after a dose of 91.519 µGy/m2) which resolved without treatment. One had hematoma of the groin requiring prolonged hospitalization. One patient had acute stent thrombosis requiring new procedure. **Conclusion:** CTO programs can be adapted safely at intermediate volume centers with dedicated operators, achieving angiographic evaluated success rates equal to international reference centers (92%). The high radiation and contrast doses in some patients are a concern and measures to further reduce radiation and contrast should be scrutinized. Training of a new operator might partly explain the high doses.

ON-002 European Cardiovascular Nurses Need to Increase their Knowledge of Warfarin Therapy

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Study Objectives: Successful management of warfarin requires that health care professionals effectively counsel and educate patients, though studies indicate that health care professionals themselves do not always have the knowledge to provide patients with the correct information. The purpose of this study was to investigate European cardiovascular nurses` knowledge of the overall management of anticoagulation therapy and examine if this knowledge was influenced by level of education and years in clinical practice. **Methods:** A self-report questionnaire with 32 items on warfarin, warfarin-drug and warfarin-food interactions was distributed to attendants at a European cardiovascular nursing conference in 2012. For items with more than one correct answer, points were also given for not ticking the wrong answer, giving a maximum possible score of 53. **Results:** The response rate was 206/647 of conference attendees (32%). Respondents, who came from 24 different countries, were predominantly female (92%), had a mean age of 42±9 years and most (84%) reported having direct patient contact. Around half were working in inpatient care (48%) and had spent an average of 17±9 years in clinical practice, most of which (13±8 years) were in cardiovascular care. Respondents demonstrated knowledge deficits of oral anticoagulation therapy and medication interactions, especially regarding warfarin interactions with vitamin

E, vitamin C and antibiotics. Knowledge of warfarin-diet interactions and how to advise patients on warfarin was somewhat better. Mean total knowledge scores (was 28±6 (range 3–41, maximum possible score 53) with those involved in direct patient care scoring higher (29±6 versus 26±6, p = 0.011). There was a consistent decrease of knowledge of oral anticoagulation therapy with increasing level of education. **Conclusion:** European cardiovascular nurses need to increase their knowledge of oral anticoagulation therapy if they are to deliver optimal care to their patients and to minimise adverse effects of the treatment

ON-003 Improvement of In-Hospital Telemetry Monitoring Regarding Electrode Placement and Attachment, Hygiene and Patient Information: An Intervention Study

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Background: Today, in-hospital telemetry monitoring is an important part of both diagnosis and treatment of patients at risk of developing life threatening arrhythmias and is widely used in critical as well as non-critical wards. Cardiac nurses staff the central monitor stations and are responsible for correct electrode placement and satisfactory electrode attachment, thus ensuring optimal quality of the monitoring. Therefore, the aims of this study were to determine whether a complex educational intervention had an effect on i) electrode placement, ii) electrode attachment, iii) hygiene, and iv) patient information regarding in-hospital telemetry monitoring. **Methods:** The study was conducted during two six-week periods in an urban 1400-inpatient bed university hospital in western Norway with 104.000 somatic admissions a year. A prospective interventional study design was applied with data collected before and after the implementation of a complex educational intervention consisting of continued education, informational posters, and an eLearning course particularly developed for this study. Data was obtained using two registration forms examining demographic background variables and ten different variables regarding electrode placement and attachment, hygiene, and patient information. All patients ordained to telemetry monitoring during the registration periods were included, none were excluded. **Results:** At pre-intervention registration, 26% of the electrodes were misplaced. Twelve percent of the patients were informed of limitations in cellular phone use when monitored with telemetry, and 71% used a protective cover. Post-intervention registration showed significant improvements on four variables; placement of the black electrode ($p < 0.001$), use of protective cover ($p < 0.001$), information regarding purpose of monitoring ($p = 0.005$) and information regarding limitations in cellular phone use ($p = 0.003$). Still, 23% of the electrodes were misplaced. **Conclusion:** Our study highlights the need for continued education regarding in-hospital telemetry monitoring in both coronary care units and other units monitoring their patients with telemetry. Furthermore, this study indicates that development of national guidelines for electrocardiographic monitoring in hospitals would be beneficial as this is non-existent in Norway.

ON-004 Translating and Validating the Norwegian Version of the Coronary Revascularisation Outcome Questionnaire

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Study Objective: Health related quality of life (HRQOL) questionnaires are increasingly used as outcome measure in research and clinical practice to assess treatment effectiveness in coronary heart disease (CHD) patients together with traditional outcome measures such as mortality and morbidity. The Coronary Revascularisation Outcome Questionnaire (CROQ) is a patient-based instrument to evaluate health outcomes and HRQOL before and after surgery and angioplasty. The aim of this study was to translate and validate the CROQ angioplasty/percutaneous coronary intervention (PCI) version into Norwegian. **Methods and Material:** Following international guidelines the translation followed the following steps: independent forward and backward translations, validation and pilot testing in both professionals and patients, and testing the psychometric properties in patients having undergone PCI. The latter was carried out in a cross sectional design where a total of 171 out of 256 eligible patients participated in the testing. Data collection included the Short Form-12 (SF-12), The Seattle Angina Questionnaire (SAQ) and clinical and sociodemographic variables as well as the CROQ. **Results:** Dimensions of the instruments reliability was assessed applying measure of internal consistency and test-retest reliability. Internal consistency and test-retest reliability within all scales were satisfactory with a Chronbach's alpha above 0.70 and a Inter Class Correlation coefficient above 0.89. Good face validity was reported from both patients and professionals. Criterion validity, assessed using the SF-12 and SAQ, and known groups' validity, comparing those with previous heart disease with those without previous disease, were in line with results reported from the authors of the original version of the CROQ. **Conclusion:** The Norwegian translation of the CROQ PCI version is a valid and reliable scale for assessing HRQOL

in CHD patients and can be used both in clinical practice and research.

PC-001 Length of Stay for Patients with Acute Coronary Syndrome Immediately Retransferred to the Referral Hospital After Acute Coronary Angiography/PCI

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Study Objectives: The challenge with Fast track (FT) is to avoid compromising medical safety. We aimed to investigate whether patients with Acute Coronary Syndrome (ACS) could be safely retransferred to the referral hospital on the same day as coronary angiography and/or PCI, without extending the length of hospital stay (LOS). **Methods and Materials:** 399 consecutive patients were prospectively randomized, 206 to the ordinary care (OC), and 193 to the FT group. 30% of patients were admitted for unstable angina pectoris and 70% for non-ST segment elevation myocardial infarction (NSTEMI). The FT patients were evaluated for possible same day return after angiography and/or PCI. The radial approach was used in 91% and 87% in the OC and FT group, respectively. Length of stay was recorded at both the PCI centre and the referring hospital. Acute and 30 days major events were recorded. **Results:** 95% of the FT patients were returned the same day and nine crossover patients (4.7%) the next day or later. Major events occurred in nine patients (2.2%), five in the OC and four in the FT group. There were a total of five events within 24 hours. No events were observed during transportation and there were no early retransfers. Median LOS in the OC group was 30 hours (mean 54.5), compared with 5.7 hours (mean 10) in the FT group. In the referring hospital additional median LOS was 31 and 26 hours (mean 68.7 and 59.8 hours) in OC and FT group, after return from the PCI centre. **Conclusion:** Early retransfer was safe and did not delay discharge from the referral hospital. Immediate written reports and good communication with the referring hospital enabled that thoroughly selected patients were safely returned the same day as angiography and/or PCI.

PC-016 Large, Single Center Experience with Single Sheat Lead Extraction

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Background: Our centre is serving most of Norway and Iceland for pacemaker and ICD lead extractions. We are mainly using single sheath technique, a variant of the dilating sheath technique described by Byrd. **Methods:** From 1997 to end of 2011, we have treated 731 patients, median age 64 years (range 7–96 years), with 1195 leads. Forty-nine percent of the extractions were performed on infections, 51% were elective. Twenty percent of the leads were ICD-leads, whereof 82 Medtronic Sprint Fidelis. Median age of all leads was 5 years (range 0.1 to 42 years). The single sheath technique was used in 68% of the extractions, in 28% we used traction alone, in 4% various fishing techniques and in 1% "Evolution" (Cook). We start with a gentle traction and then proceed to single sheath technique after applying a locking stylet (Cook/ Spectranetics/ VascoMed). A single Cook polypropylene sheath is mounted with a Cook Pin Vise and is gently pushed down the lead with rapid rotation. When serious resistance is met, the sheath size is increased. In some difficult cases the next step will be the use of an "Evolution" sheath. For larger diameter leads (ICD) we have also used "VisioSheath" (Spectranetics) in a few cases. In some patients a steel sheath or the "Evolution-Shortie" is used to access the subclavian vein. In selected cases we use jugular or femoral approaches. **Results:** Complete success was achieved in 96%. Partial success (i.e. removal of all of the lead except the distal 4 cm) was achieved in 3% of the lead extractions, and failure 1%. The overall clinical success is 99%. ICD-leads: 239 leads (median age 5 years, range 0.1–20 years): 99% clinical success. Median "sheath-time" (i.e. the time the sheath is applied) for all leads is 5 min., range 1 to 300 minutes, for ICD-leads 5 min. range 1–195 min. Complications: Major complications 1.5%, one procedural death, one SCD three weeks after the procedure. Minor complications 0.7%. **Conclusions:** The single sheath technique is effective with 99% clinical success and median sheath time of 5 min for both pacemaker- and ICD-leads. The technique appears to be a quick and effective alternative to laser sheath lead extraction. The complication rate of the single sheath technique is low.

PC-017 Change in Yield of Coronary Angiography in 11,000 Patients without Known Cardiovascular Disease from a General Population of 470,000 During the Period 2005–2010

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Purpose: There has been a significant reduction in mortality and incidence of coronary heart disease the last 40 years in western countries. This study explores if these changes are reflected in the angiographic yield in patients without known coronary heart disease. **Method:** In the

database covering all angiographic procedures performed at a tertiary cardiac centre with sole responsibility for a population of 470,000 since 2005, patient with known coronary heart disease were excluded as well as procedures done due to organ donation. Consecutive procedures during one admission were counted only once leaving 11,008 admissions with angiographic procedures for this analysis. **Results:** No significant trend in angiography volume was seen. There were 52% emergency admissions (32% women) and a yield of 72% significant stenosis >50% in men and 49% in women. For elective angiography there were 42% women with stenosis in 59% and 36% of men and women respectively. There was a significant change in yield in emergency admission mainly due to a decreased yield in unstable angina from 61.6 to 44.2% (p trend 0.0001) and in elective admissions due to a significant decrease in all age groups. Lowest yield was seen for women <60 years where elective detection of stenosis decreased from 26.9 to 15.7%, p trend 0.16. Only 37% had their diagnosis of coronary heart disease due to elective angiography. Emergency admission as venue for diagnosis of stenosis was independently predicted by smoking OR 2.5 (2.2–2.9), lack of hypertensive treatment OR 1.2 (1.1–1.4), lack of statin treatment OR 2.3 (2.0–2.5), earlier stroke OR 1.3 (1.1–1.7) and younger age OR pr 10 year 1.07 (1.04–1.12). **Conclusion:** The reduction of incidence and mortality for coronary heart disease seen in the general population is reflected in angiographic yield. Prevention has a major impact on chance of detection electively. Better strategies for selection of patients for elective angiography are warranted

	2005	2006	2007	2008	2009	2010	P trend
Total, n	1,645	1963	1737	1841	1826	1996	ns
Stenosis >50 (%)	71.7	63.8	64.6	62.4	61.8	56.7	0.0001
Emergency, n (%)	937 (57)	947 (48)	923 (53)	932 (51)	967 (53)	1051 (53)	ns
Stenosis emergency (%)	79.5	78.7	78.7	76.8	73.3	70.1	0.0001
Stenosis elective (%)	61.4	50.0	48.7	47.5	49.0	41.7	0.0001

PC-020 Are Non-Contrast Flushing Agents in Coronary Artery Optical Coherence Tomography Feasible Alternatives to Contrast Flushing?

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Study Objectives: Optical Coherence Tomography (OCT) has been introduced as method for detailed characteristics of coronary arteries. Clinical applicability is limited by the use of contrast as flushing agent for removal of blood during recording. Therefore, a contrast saving alternative is needed. We explored several non-contrast and reduced-contrast agents, and present the investigation if colloid osmotic solutions [Dextran 70 (60 mg/mL) and Voluven (60 mg/mL)] might be utilized as flushing agents during OCT with preserved image quality compared to contrast (Iomeron 350 mg I/ml). **Methods and Material:** In two anaesthetized pigs we obtained OCT (FD-OCT LightLab/Dragonfly catheter, St Jude) and compared Dextran, Voluven and contrast at identical infusion pressures and flow rates. Recordings were obtained from the left anterior descending and right coronary arteries. Blinded to the flushing agent, two experienced OCT readers quantified diagnostic quality vessel length (discriminable wall layers ≥270°) and assessed overall image quality (0- discarded, to 3- high quality). **Results:** OCT recordings during flushing were performed at equal blood pressures and heart rates. Although, only minor differences were observed in this limited sample size, diagnostic quality vessel length as well as overall image quality, were somewhat higher during contrast than Voluven and Dextran flushing (fig. 1). **Conclusion:** In the current study Dextran and Voluven provided somewhat shorter diagnostic quality vessel length and lower image quality as compared to contrast. However, vessel length and image quality were far beyond what is clinically needed for all. Therefore, Dextran and Voluven flushing agents may have the potential to serve as a contrast alternative for clinical OCT recordings

PN-001 Classification and Timing of In-Hospital Telemetry Monitoring – Evaluation of AHA Practice Standards in 1194 Patients

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Purpose: Remote telemetry monitoring of the heart rhythm is an important part of diagnosis and treatment of cardiac patients. Practice Standards for Electrographic Monitoring by the American Heart Association (AHA) classifies patients into three classes and specify time frame for arrhythmia monitoring. The aims of the study were to: i) investigate how patients are assigned according to the AHA classification (ii) determine length of stay on telemetry and iii) examine whether the time frame of monitoring is appropriate. **Methods:** A prospective observational design was applied. All patients assigned to telemetry at one university hospital in adult wards during a three month period were consecutively enrolled. Data were collected 24/7. A registration data sheet with sixty- four variables

was developed, completed by monitor watchers at the central monitor station, and reviewed by the investigator. Medical records were reviewed in all patients. **Results:** Eighteen percent of all patients were assigned to AHA Class I (monitoring indicated), 71% in Class II (monitoring may be of benefit) and 11% in Class III (monitoring not indicated). Nearly half of all Class III patients experienced arrhythmia events. Overall median length of stay (LOS) on telemetry was 21 hours. Median LOS in Class I was 24 hours, in Class II 20 hours and in Class III 21 hours. As AHAs Practice Standard specifies time frame monitoring for only some diagnosis, specific time frame data are revealed in 71% of the study population. Median LOS on telemetry in Class I patients with heart failure (n = 73) and patients in early phase of acute coronary syndrome (n = 34) were 24 and 21 hours respectively. Median LOS on telemetry in Class II patients with chest pain (n = 494), syncope (n = 100), radio frequency ablation (n = 67) and non-urgent percutaneous coronary intervention (PCI) without complications (n = 75) were 23, 21, 10 and 7 hours respectively. **Conclusion:** Most patients in this study were monitored as appropriate, according to Class I and II indications for cardiac arrhythmia monitoring. Telemetry monitoring was within appropriate time frame only in Class II patients with chest pain. Class I patients in early phase of acute coronary syndrome and patients with heart failure and Class II patients undergoing PCI and radio frequency ablation and patients evaluated for syncope were all under-monitored according to AHA's Practice Standards. Both the large proportion of patients and LOS in Class III challenge existing guidelines.

PN-003 Secondary Prevention for Patient with Myocardial Infarction – Interaction Between Primary and Secondary Care

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Background: The purpose of this research project was to explore geographical variations in early secondary prevention for patient with myocardial infarction. The respondents were asked to describe current practice and suggestions strategies to improve follow-up after discharge from hospital. **Method:** A comparative case study between a small and medium sized city was designed to compare different cases (cross-case analysis). Qualitative data was collected through in-depth interviews with healthcare professionals. Data analysis was done using qualitative content analysis and organizational theory for theoretical analysis. **Result:** The two cities have chosen different models when organizing early secondary prevention for patients with myocardial infarction. In the small town the GPs alone usually had responsibility for patient follow-up after discharge. In the medium sized city cardiac rehabilitation programs have become an integral part of care after hospital discharge, and they use a multidisciplinary approach. The informants had several suggestions for improving follow-up after discharge; for example standardized clinical pathways, clear leadership, and individualizing services taking into account the patient's profile. GP`s emphasized the importance of improving communication between primary and secondary particularly when it comes to discharge summaries. **Conclusion:** Specialization in departments and disciplines can easily become too rigid and inflexible when needed for collaboration across organizational boundaries. It seems necessary with both vertical and horizontal integration. The findings suggest that research areas should include exploring new ways of cardiac rehabilitation delivery to maximize its benefits and ensure adequate post-discharge services.

PN-004 Percutaneous Pulmonary Valve Implantation; Experiences of the Patient and their Close Relatives

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Study Objectives: Percutaneous pulmonary valve implantation (PPVI) reduces the number of open-chest procedures during childhood and adolescence. As operative survival has improved, the focus of PPVI has turned to quality of life-aspects and patient assessed experience of treatment. This study evaluates the physical and psychosocial aspects of daily life in patients, and relatives, undergoing PPVI. **Methods and Material:** 10 consecutive patients was included in the prospective, qualitative study during April 2007 to June 2011. Patients and close relatives participated in individual in-depth interviews 1 day before and 3 months after PPVI. All patients and close relatives had previous experienced cardiac surgery and subsequent pediatric cardiac intensive care. **Results:** This less invasive procedure resulted in an earlier return to daily life and activities compared with previous experience (median 2.4 days in hospital) with patients resuming their social role and function. Close relatives stated that both the short hospital stay and improved function of their child was of benefit for the child, the family and society. **Conclusion:** This study shows that striving for normality of life is a main goal for both patients and their relatives. In facilitating patients to achieve optimal social function in school, the home and with peers, ppvi appears to offer a favorable approach, due to the minimal interference on daily life. Furthermore, this study

allows for the evaluation of our health system from both a patient and a family perspective.

PN-005 Cancellations of Elective Cardiac Radiofrequency Ablation Procedures and Compliance with a National Quality Indicator: A Clinical Audit

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Background: Late cancellations of surgical procedures are a major problem in specialist health care, resulting in substantial waste of resources. The Norwegian Directorate of Health mandates a cancellation rate of 5% or less as a national quality indicator. For catheter-based radio frequency ablation (RFA) therapy for cardiac arrhythmias, there have been no studies done on the pervasiveness of cancellations, neither nationally or internationally. The aims of this study were to determine in our cardiac surgical services (i) the percentage of RFA therapy procedures cancelled, (ii) the cause of cancellations, and (iii) whether administrative data accurately reflect the true causes of cancellations. **Methods:** A retrospective observational design was used in the context of a clinical audit. We included all patients assigned to elective RFA during a one-year period at one large university hospital in Norway. The annual cancellation rate was calculated and compared to the national indicator. Causes of cancellations were also analysed to determine the rate of delays versus cancellations, and the distribution of the different causes was determined. **Results:** In total, 471 elective RFA procedures were scheduled. Of these, 70 procedures (15%) were cancelled after patient admission. The two most frequent causes of cancellation were 'capacity problem at the operating room' (n = 38), and 'no indication for treatment' (n = 20). Only 13 of 70 cases were registered in the administrative database ORBIT. In 10 of these 13 cases, the causes of cancellation recorded in ORBIT matched those recorded in the accompanying patient medical records. **Conclusion:** There appears to be a discrepancy between current practice and the standard set by Norwegian health authorities. Both organisational and patient- related factors caused cancellations, many of which were similar to causes reported in the literature to be avoidable. We suggest that nurses in the arrhythmia team should perform a preoperative evaluation to reduce cancellations.

PN-006 The Effect of Premedication and Information on Pain Intensity and Satisfaction in Patients with Atrial Fibrillation During Radiofrequency Ablation

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Study Objectives: Patients undergoing radiofrequency ablation (RFA) for atrial fibrillation (AF) experience pain and discomfort. This study aimed to compare and evaluate the effect of premedication and standardized preoperative information on pain intensity (I), consumption of analgesic and anxiolytic during RFA (II) and patients' satisfaction with pain management during RFA (III). **Methods and Material:** Sixty patients with paroxysmal or persistent AF were randomized to either control group A (n = 20) receiving the current standard of pain management, intervention group B (n = 20) receiving premedication or intervention group C (n = 20) receiving standardized preoperative information given by a RFA nurse in addition to premedication. Pain intensity during RFA was assessed with the Numeric Pain Rating Scale, and patient satisfaction was recorded after the procedure by a numeric scale 1–10. One represents very dissatisfied and 10 represents very satisfied. Data were analyzed by linear regression analysis, ANOVA and t-test. **Results:** Patients in the intervention groups experienced less pain intensity ($P < 0.001$) and needed less anxiolytic ($P = 0.023$) and analgesics ($P = 0.031$) during RFA compared to patients in the control group. Patient satisfaction with pain management was significantly higher in intervention group C ($P = 0.005$) compared to patients in control group. **Conclusion:** Premedication as combinations of Oxycodone and Paracetamol either alone or in addition to standardized preoperative information by RFA nurse were effective in reducing pain intensity and consumption of anxiolytic and analgesics drugs during the RFA. Standardized preoperative information seems to contribute to increased patient satisfaction with pain management during RFA.

PN-007 Pain Management and Sedation During Atrial Fibrillation Ablation – A Systamatic Quality Improvement Project

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Study Objective: In Norway and other Nordic countries percutaneous radiofrequecy catheter ablation (RFA) for atrial fibrillation is a increasingly more performed procedure. It is often a long, complex and painful intervention when not performed under general anesthesia. The advantages of performing the procedure on awake patients are to better observe signs of potential complications related to the procedure and to prevent potential anesthesia related complications. The aim of this project was to develop a new protocol for pain management and sedation during RFA. **Methods and Material:** When planning the project Demnings Quality Circle PDSA (Plan- Do- Study- Act) served as guiding method. We started identifying the problem by looking into the medical charts on 17 patients having undergone RFA to identify the magnitude of the problems. When developing the pain management and sedation protocol we performed a review of relevant literature. Together with the anesthesiologist and cardiologist the nurses developed a protocol building on the principles' of the WHO- analgesic ladder. This involved premedication, a combination of non-opioid and opioid as well as adjuvant medication in combination with non-pharmacological approaches. To evaluate our protocol we developed an interview template to assess pain, on a 0–10 numeric rating scale, nausea and other problems experienced during or after the RFA. The analgesic procedure was then implemented. After the first 10 patients the results were evaluated and some changes in our pain management protocol were put into action. After a total of 45 patients we have performed our final evaluation. **Results:** After having looked into the medical charts the problem of being late in administration of pain medication i. e. inadequate pain management, problems with nausea and vomiting and circular instability were confirmed. After our first evaluation we chose to include dexamethason into the premedication to possibly reduce nausea. In our final evaluation 41 men and 4 women are included. In average patient report moderate pain during the procedure (Mean 3.2 SD 1.5) with peaks of more intense pain (mean 6.3 SD 1.8). Based on experience the optimal level of morphine i.v. during the RFA is about 25–30 mg. Only 3 participants have reported nausea during the RFA and 16 during the postoperative phase. A total of 35 patients describe the procedure as more painful and 43% as less painful as expected beforehand. In addition patients have describes other problems as well as areas for improvements. **Conclusion:** By working systematically applying the PDSA circle we have now improved and standardized our pain management and sedation procedure. The results are positive both for the patients and the team involved in the RFA intervention. Our patient documentation chart is changed and include such as standard measures of pain. This allows continued monitoring of patients' experiences and process outcomes of RFA.

PN-008 Symptoms of Acute Myocardial Infarction – What Influence the Patients' Interpretation of Symptoms as Cardiac in Origin?

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Study Objectives: To investigate how patients with acute myocardial infarction (MI) interpreted their symptoms and which aspects that contributed to a cardiac attribution, in a gender perspective. **Methods and Material:** A multi-center cross-sectional study consisting of 533 Norwegian women and men diagnosed with a first time acute MI. The respondents completed a self-administered questionnaire. **Results:** The acute MI symptoms were attributed as cardiac in 49% of the women and 53% of the men. In both women and men good knowledge about acute MI symptoms and previously diagnosed angina contributed to a cardiac attribution, while a mismatch between symptoms expected and experienced were associated with a non- cardiac attribution. In women only, experiencing fatigue and reporting symptoms to be unbearable were aspects that contributed to a cardiac attribution, while chest symptoms experienced after the onset of other symptoms contributed to a non-cardiac attribution. In men only, prescribed Nitroglycerine and hypercholesterolemia contributed to a cardiac attribution while experiencing abdominal pain contributed to a non-cardiac attribution. **Conclusion:** Patients' knowledge and expectations about acute MI symptoms had a major impact on the interpretation of symptoms in both genders. Medical history more likely influenced men than women, while symptom characteristics more likely influenced women