

Irish Nurses Cardiovascular Association News

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NEWSLETTER

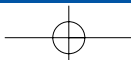
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A Word from the President.

Dear Colleagues,

I would like to wish you all a very Happy Healthy and Prosperous NewYear.

Since the last edition of the newsletter INCA hosted a number of scientific meetings. The first of these was the Irish Cardiac Society's Cardiovascular Nurses Scientific Conference, which took place in the Radisson Blu Hotel, Sligo on October 7th 2010 INCA as always was honoured to organise this meeting in partnership with the Irish Cardiac Society and as per previous years was well attended and was very informative. You can read a synopsis of this event in this edition of the newsletter.

Following on from this INCA hosted the Autumn Evening meeting which took place on the 4th November in Alexander Hotel, Dublin. This meeting comprised of updates from the ESC Congress that was held in Stockholm, Sweden at the end of August 2010. This meeting also provided the travelling fellowship recipient Fiona Colbert to share with us her highlights from the congress. In addition to this event INCA committee members who attended the congress have written up their findings for this newsletter.

The travelling fellowship is a joint venture between INCA and MSD Ireland where two successful applicants can go to the ESC Congress, Paris 2011 (all expenses paid). In addition the recipients have an opportunity to share with us their findings at the Autumn Evening Meeting. In addition to the travelling fellowship INCA are delighted to offer eight educational bursaries to the value of up to ?1,000 each. This bursary can be used for attending a conference of interest to your clinical practice or a post graduate course. Closing date for both the travelling fellowship and educational bursaries applications is March 11th 2010. Application details are found on the website or by contacting president@incanursing.ie. To apply for these one needs to be a current member of INCA and working within the cardiovascular nursing. If you have been successful before please apply again.

Also in this newsletter are reports from our educational bursary recipients. Sophie Charles, St Colmcilles Hospital, Loughlinstown presents her findings from the ESC congress Stockholm. Roisin Brennan St Colmcilles Hospital, Loughlinstown gives us feedback on the Advanced Cardiac Rehabilitation Training Course in Bern Switzerland and Mary O'Connor, Mater Private Hospital, Dublin tells us of her experiences undertaking the professional certificate in advanced physical assessment. Congratulations and well done on your reports. They make very interesting and informative reading.



*Kate O'Donovan,
President INCA*

Upcoming events for INCA are the 13th Annual Cardiovascular Nurses Scientific Conference which takes place on March 25th in the Tullamore Court Hotel, Tullamore. The programme is finalised and presentations include an overview of the prevention in cardiovascular disease, changes in the ACLS guidelines and percutaneous ventricular assist devices for the complex cardiac patient. Please log into the INCA website www.incanursing.ie for further details and updates.

A Reminder

INCA membership renewal is due on the 1st April. You can renew your membership by logging on to www.incanursing.ie. INCA uses PayPal for transactions which is a secure and safe method.

We look forward to your continued support and thank you for your support in 2010.

Kindest Regards

Kate O'Donovan, INCA President

INCA Committee members 2010-2011

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Report Summary

ESC Congress 2010 Stockholm.

Scribed by Elizabeth Reilly, Nurse Tutor, Regional Centre for Nurse Education, Connolly Hospital, Blanchardstown

Snippets from Stockholm

Over 18,000 thousand delegates descended on Stockholm for the annual European Society of Cardiology Congress from August 28th to September 1st.

Childhood obesity is an epidemic, and signifies a major threat to long-term cardiovascular health. Almost one in five children is obese; of those fifty to eighty per cent will remain obese in adulthood. In a session on Cardiovascular Disease Prevention - Risk Assessment and Management, one proposal on childhood obesity was to make parents central players in weight-loss therapy for overweight children and adolescents. Yael Latzer, a family therapist from Haifa University in Israel said that this family-centred approach uses parents to serve as role models for their children, encouraging healthy lifestyles. 'The rationale is that parents have more influence on their child's lives than anybody else,' she clarified, 'and can provide positive role models for physical activity and having a more positive relationship with food.' Parental therapy courses, consist of teaching the parents of overweight children how to change the way their families eat - by reading nutritional labels, avoiding talk about food and even changing the layouts of their homes. Advice includes arranging the house so that watching TV and playing computer games become less comfortable. Study results propose, that parents who have a strict approach in which they impose stringent control on their child's eating may interfere with their ability to regulate food intake (this may promote binge eating). On the other hand, parents who allow their children to control their own eating behaviour permits the child to decide how much they

wish to eat, this appears to encourage good eating patterns. 'The idea is not to focus on the fat child, but to apply the same rules to the entire household,' 'The hardest part is to convince parents in the first place that they should be the focus of change.' 'It's a long process,' 'and parents need a lot of patience, but it's enormously rewarding, according to Dr Latzer 2010. The moment you reduce the pressure you see an immediate improvement in the child's self-esteem.

The initiative has proved extremely successful. A study by Leonard Epstein from the University of Buffalo showed that families randomised to behaviourally oriented treatment programmes intended to support a change in eating habits in both parents, delivered better results than those randomised to programmes focussing only on changing the child's eating habits. Their findings indicated that 30% of obese children were no longer obese, even after 10 years.

Continuing with the theme Cardiovascular Disease Prevention - Risk Assessment and Management in a session entitled "Cardiovascular diseases: are women different?" the four main topics that effect women with regard to cardiovascular disease were discussed. Dr. Eva Swan discussed the possible protection of women from coronary heart disease. She emphasized the presence of more than one risk factor in women, non-mortality differences in young women compared to young men, major incidence of normal coronary arteries after AMI could be explained by a major activity of platelets in women and the need to modify the indications for revascularization looking at the results. Prof. Vera Regitz-Zagrosek reported that Diastolic Heart Failure is prevalent in women, and

systolic HF has better prognosis in women, with more concentric LVH with pressure overload, better regression after surgery and less fibrosis.

Dr. Linda Gillam gave an image of the up to date information about valvular heart disease and sex. The incidence of bicuspid valve is higher in men and degenerative mitral valve is more frequent in women also the surgical results are different in the short term than long term. Pulmonary Hypertension is equal for both genders before puberty, reported Dr. Nazzareno Galie, but the incidence is increased for women after puberty and estrogens are linked with this tendency, even though males have a high rate of mortality. He highlighted that PAH is a contraindication for pregnancy because of the risk of maternal death. The general point is to raise the number of studies to clarify the differences and update the indications of management in all fields with the existing evidence. Bias should be avoided in diagnosis and treatment in women and men.

I work in cardiac rehabilitation so I had to attend a session on "Essentials of cardiac rehabilitation: a user guide"

Chairpersons, Paul Dendale and Dan Gaita stated the benefit of cardiac rehabilitation, highlighting its components – from risk factor management to psychological support and vocational advice.

Stephan Gielen presented a superb personal view on "Understanding the mechanisms underlying the benefit of cardiac rehabilitation". He uncovered a theory based on "famine – effort" influence on our body adaptation as a main cause of metabolic disturbances (including consequences of atherosclerosis) in current pathology. His new research in the field of prevention and rehabilitation will be published in two articles in Circulation this year.

Joseph Niebauer described which patients should be referred to cardiac rehabilitation. He pointed out the indications, discussing mainly coronary artery disease

and chronic heart failure patients, and presented a general vision of modern cardiac rehabilitation models with practical solutions. He also presented interesting comments related to an article published this year by Birna Bjarnason-Wehrens in the European Journal of Cardiovascular Prevention and Rehabilitation – starting with the huge European differences in legislation & everyday practice and ending with opportunities to create new standards in cardiac rehabilitation.

Neil Oldridge suggested that meta-analysis demonstrated the reality of explanations related to "What results can be expected from cardiac rehabilitation". After a wonderful demonstration of the benefit of cardiac rehabilitation, he made comments about cost-effectiveness and the need to consider prevention & rehabilitation as a real investment, and not just a common way to spend money. His final message was that cardiac rehabilitation doesn't work if physicians do not refer patients! Miguel Mendes composed proofs and facts on the topic "What is the role of cardiac rehabilitation in addition to optimal treatment". Starting with Euro Aspire data and moving to clinical practice, he concluded that cardiac rehabilitation is really a "powerful tool" in reducing risk factors and a "magic pill" recommended to be used in an appropriate way for a great benefit.

In conclusion, Paul Dendale and Dan Gaita (chairmen) emphasized the solid scientific data presented and stated that the session was a perfect advertisement for cardiac rehabilitation in cardiology practice.

So many interesting topics were presented by eminent names in the cardiology field that the whole conference was a feast of information. The choice was huge which made the decisions difficult as many "must hear" sessions occurred simultaneously.

Report Summary

ESC Congress 2010 Stockholm.

Scribed by Audrey Kearns RGN, CCU, St James Hospital Dublin 8

Early Management of Heart Failure for post MI survival.

At the ESC meeting in Stockholm, I attended many sessions on up to date cardiology practice. This report is on a session on the Saturday of the conference. The session entitled Early Management of Heart failure for post- MI survival, was chaired by Prof. John Mc Murray from Scotland who is renowned for his involvement in heart failure and cardiovascular disease research.

4 speakers discussed their opinions and findings in relation to early prevention of heart failure post MI. I will now summarise these findings and hope they will be of benefit for your clinical practice in cardiology.

The first speaker was Professor Gabriel Steg of Paris, France, who discussed the predictors of post-STEMI survival as identified by the GRACE patient registry. The Global Registry of Acute Coronary Events (GRACE) registry is an international collective of patients who have been hospitalised with acute coronary syndromes in 100 hospitals across 14 countries. It evaluated almost 10,000 patients a year from 2000 – 2007. From the data collected by the registry the GRACE score was developed. The GRACE score is a risk assessment tool that allows physicians to stratify the risk of death/ MI both in hospital and 6 months based on 7 key elements. These characteristics are age, heart rate, systolic BP, renal function, Killip class, cardiac arrest at admission, ST- Segment deviation and elevation of biomarkers of myocardial injury.

Prof. Steg went on to explain that heart failure is a frequent and severe complication of MI and is associated with low rates of reperfusion therapies (PCI) and particularly poor outcomes. In GRACE, heart

failure at presentation was associated with an increase in mortality from 2.9 % to 12 % ($p < 0.001$) at discharge and also at 6 months (2.8% vs. 8.5%). The development of heart failure in hospital was associated with a higher increase in mortality (17.8% vs. 12%). Interestingly, the GRACE study found that patients with heart failure or symptoms of heart failure received less evidence based therapies and underwent less frequent revascularisation. Prof. Steg did not discuss if this was also due to other co – morbidities or based on heart failure alone. A further analysis of the findings in GRACE found that death rates of patients with chronic heart failure who are treated with revascularisation were lower than those who were not reperfused. A further study of GRACE found that with the increase in use of revascularisation for ACS a decrease in death rate from heart failure was evident. Prof Steg indicated that strategies to address the risk and complications of heart failure associated with ST- Segment elevated MI should be considered a priority. These strategies should include earlier recognition of STEMI to increase the use of reperfusion therapies and early implementation of evidence based therapies for patients who display signs or symptoms of heart failure with an acute coronary syndrome.

The next speaker was Prof. Giles Montalescot of Paris, France. He discussed the Pathological Insights into the preservation of cardiac function post MI. He went on to inform the room that elevated plasma aldosterone levels were associated with many of the pathological mechanisms of tissue damage in cardiovascular disease including vascular inflammation, myocardial ischemia, necrosis and fibrosis. Elevated aldosterone levels had also been associated with the development

of heart failure, kidney disease and coronary artery disease. Recent research (ICPS study 2006, OPERA study 2009) has shown that high plasma aldosterone levels in patients with ACS on admission to hospital were highly predictive of increased risk of in-hospital heart failure and death but also of longer term outcomes in both STEMI and NSTEMI patients.

Prog. Monatalescot suggested that optimal aldosterone blockade should occur early in the treatment cycle of ACS. Aldosterone blockade has been shown to inhibit ventricular remodelling and collagen deposition, decrease inflammation and increases myocardial perfusion and capillary density in patients with left ventricular dysfunction after MI. Studies that have reviewed the use of aldosterone blockade include the EPHEBUS trial that treatment with eplerenone reduced hospitalisation and mortality in patient's with AMI and LV dysfunction. A more recent study Albatross (2010) looks at the 1st 3 days post MI, which demonstrated that the optimum time to introduce aldosterone agonist is in the first 3 days post MI and up to 7 days. Prof. Montalescot discussed briefly the use of mineralocorticoid blockers after MI as they display similar effects to aldosterone, however the true benefit of these are yet to be seen .

Professor Prakash Deedwania of San Francisco, USA, presented on the Significance of Glucose levels in acute MI with systolic heart failure and effects of eplerenone on glucose levels in patients with acute MI. Hyperglycaemia is commonly observed in patients with ACS (56% - 87% of patients, TIMI 2008) and is predictive of increased morbidity and mortality in patients with cardiovascular disease, independent of the presence or absence of diabetes mellitus. The greatest risk was found in patients with no previous history of diabetes. Poor glycaemic control during hospital admission was found to increase mortality (25%) and have a direct impact on outcomes post ACS event. According to the American Heart Association blood glucose levels should be monitored closely for patients with an ACS. It was also recognised that too tight glycaemic controls and hypoglycaemic events also

increased mortality for patients with known diabetes. However, the use of eplerenone was suggested to have an impact on blood glucose levels. Prof. Deedwania and his colleagues carried out a post hoc study of patients with heart failure in the EPHEBUS trial and found that there was no significant impact on blood glucose with the use of elperenone.

Professor Johann Boursachs of Würzburg, Germany presented a new idea to the group. The use of Immediate Mineralocorticoid blockade and myocardial infarct healing. Following on from Prof. Monatalescot's brief highlighting of the benefit of mineralocorticoid blockade Prof. Boursachs discussed in further detail this emerging area of research for the prevention of heart failure post MI. Again the Ephesus study was quoted. It shows that mortality decreased in patients with MI and heart failure with the use of selective mineralocorticoid receptor (MR) blockade using eplerenone. Following from this result Prof. Boursachs and colleagues wanted to investigate if MR antagonism promoted healing of the infarcted myocardium. Studies to date have only taken place in the laboratory on rats. It has shown promising results with significantly reduced thinning and dilation of the infarcted wall, improved left ventricular function and enhanced neovessel formation in the injured myocardium. In conclusion, the experimental evidence supports the concept that direct actions in the heart and vasculature mediate the beneficial effects of MR blockade on left ventricular healing and remodelling after MI.

The take home messages from this session are that early revascularisation for ACS, tighter glycaemic control during hospital admission and early use of aldosterone agonists are all priorities for patients who present to us with ACS. In the future we may see the use of mineralocorticoid blockers for patients with AMI and LV dysfunction, bearing in mind this is still being investigated by researchers in the laboratories. As nurses in the area of cardiology, we can help to recognise early, signs and symptoms of ACS and heart failure which can lead to earlier interventions and positive outcomes for out patients.

Report Summary

ESC Congress 2010 Stockholm.

Scribed by: Sophie Charles Cardiac Rehabilitation Co coordinator St Colmcilles Hospital, Loughlinstown Co Dublin
(Recipient INCA Educational Bursary)

I would like to take this opportunity to thank INCA for their bursary allowing me to attend the 2010 ESC conference in Stockholm.

Over 30,000 delegates from all over the world attended this conference with nearly 6000 presentations and posters. The conference was divided into different topic areas, cardiovascular imaging, epidemiology and prevention, genetics, heart rhythm disorders and resuscitation science, myocardial and valvular disease. Nine clinical tracks were incorporated including diabetes, electrophysiology, general cardiology, imaging, surgery, international nursing, quality and interventional cardiology.

It was impossible to get to all topics; some of the highlights included the new ESC guidelines incorporating the new Atrial Fibrillation guidelines, the new drug Ivabradine (Procorlan) which is manufactured in Co Wicklow, for the treatment of Heart Failure. My feedback is on the area of cardiovascular prevention and the RESPONSE trial.

European Forum on Cardiovascular Disease Prevention: from implementation to evaluation

Prof. Ian Graham from Ireland started by discussing what we may learn from different European projects, also discussing tools and activities initiated to improve tools. He underlined that the European stage (EU) is of vital importance however there is no legal framework created. If this was available, it would much help implementation not only at a European, but also a national level. The framework for such legislation is available, for instance, the European Heart Health Charter and the joint European Prevention Guidelines. There are a number of important measures to be taken; not least lifestyle

oriented factors that indeed are poorly practiced. The European Association for CVD prevention and rehabilitation has created a special group to work with these questions. Surveys in a simple and rapid form (E-SURF), and a more comprehensive form is under way in EuroAspire 4.

Prof H. Mc Gee from Dublin reported on an evaluation of implementation of the fourth joint Task Force Guidelines for CVD prevention. A study was performed in 13 countries based on interviews with representatives of the cardiovascular profession; governmental and non-governmental organisations. Preliminary results show that different countries are working in different ways and that some have comprehensive networks created on the topic of implementation while others still have a long way to go. A detailed presentation will be presented at the European prevent summit at the European Heart House in November 2010.

In another presentation Lieven Annemanns from Gent, BE, presented a model for evaluating the cost-effectiveness of cardiovascular prevention based on EuroAspire III data and risk prediction registries across Europe. This work will fill a big gap in the knowledge on the economical impact of prevention, highly needed. The model takes into account what would happen if set blood pressure, blood lipid etc targets are reached as regards savings of QALYs. Presently, 1 QALY is valued at 30,000 Euro and by means of such information it will be possible to relate the cost of improved prevention to saved QALYs in a way which is predicted, showing that prevention truly makes sense. Once again, detailed results will be available at the European Prevention Summit, in November.

Simon Capewell from Liverpool, UK, reviewed various signs of how EuroHeart, an EU supported shared project between the European Heart Network and the ESC have impacted politicians view of the need for further and improved preventive measures in Europe. Several of the working packages have been labelled as European flagships in the sector of prevention and among them; he mentioned women and CHD, and the European Heart Health Charter. The NICE guidance has just been released in the UK and is well worth reading for those interested; It has been estimated that in the UK alone, one may save up to 10 billion UK pounds by reducing salt intake, increasing fruit and vegetable consumption and eliminating saturated fat. In principle, 1.5 million life years may be saved in the UK by successful implementation of healthy choices before those who are increasing the risk of CV disease. The NICE document is available on the web.

Finally, Joep Perk summarised by talking about his view on whether we have succeeded in influencing clinical care in the sector of CV prevention. His short and pessimistic view was "no – not really". He did however expand and said that there is a long way to go and one of the problems is that we have underestimated the need for, or not been able to establish alliances between nurses, GPs, cardiologists, health workers in society and others involved. If we can do that in a better way, we will probably succeed within a reasonable future.

Nurses can significantly reduce the risk of recurrent complications in heart patients: results from the RESPONSE trial

A six-month outpatient prevention programme conducted by nurses has resulted in significant and sustained improvements in the control of cardiovascular risk factors, including high cholesterol or high blood pressure, in patients hospitalised for a heart attack or impending heart attack.

The programme, applied in addition to standard medical care, led to the improved adherence to current guidelines on prevention, including lifestyle and compliance with drug treatment. The nurses

were able to increase the proportion of patients with good control of risk factors by 40% (defined as at least seven out of nine risk factors on target) and to reduce the calculated risk of dying in the next 10 years by about 17%.

RESPONSE (Randomised Evaluation of Secondary Prevention by Outpatient Nurse Specialists) was an 11-centre randomised study designed to quantify the impact of a nurse-co-ordinated outpatient risk management programme on the risk of future clinical events in patients with symptomatic coronary artery disease. The primary endpoint was patient evaluation according to the SCORE risk score at 12 months, with secondary endpoints assessed according to the Framingham risk score and individual risk factors at 12 months follow-up (including lipid profile, glucose, blood pressure, weight, waist circumference, physical activity, healthy diet, alcohol consumption).

In explaining the background to the trial, principal investigator Professor Ron Peters from the Academic Medical Centre, Amsterdam, said: "Patients with coronary artery disease are at high risk of recurrent complications and death. Preventive care can effectively reduce this risk, and guidelines have been issued by the American Heart Association/American College of Cardiology and the European Society of Cardiology which target common risk factors for heart disease such as high blood pressure, smoking, and high cholesterol.

"Together, these risk factors are associated with the development of coronary artery disease, which remains the world's leading cause of death. At present, a considerable gap exists between these guidelines and their application in clinical practice. It is widely believed, both by patients and doctors, that the preventive aspect of treatment is given insufficient priority and that new approaches are needed to realise the full benefits of prevention. A short coaching programme by a nurse, on top of usual care, is such a new approach already found promising in primary care."

The RESPONSE trial, which evaluated an outpatient nursing programme in 11 hospital centres in the

Netherlands, included 754 patients hospitalised for an acute coronary complication (MI or impending MI). They were randomised to either usual care alone or usual care plus a six-month nursing intervention that included four extra visits to the outpatient clinic. Nurses gave advice on healthy lifestyle (food choices, physical exercise, non-smoking, weight control), and monitored major risk factors, such as blood pressure, cholesterol and sugar levels, and use of preventive medication. The nurses pursued specific targets as defined by the guidelines, and if necessary drug treatment was adjusted in collaboration with treating physicians.

The primary measurement of the study was performed at 12 months, which was six months after the last visit to the nurse. Results showed a significant improvement in risk factor prevalence at the end of the programme, with no loss of effect at 12 months. Overall, at 12 months after the start of the programme, 35% of patients in the nursing group and 25% of patients in the control group were classified as having good control of risk factors (defined as at least seven out of nine factors on target). This reflects an increase of 40%. Of the risk factors targeted by the intervention, body weight was the least successful. There was no change in weight

or waist circumference between baseline and 12 months, with no difference between the two study groups. *"This may indicate that weight loss is not a realistic target in the first year after a coronary event,"* said Professor Peters, *"when priority needs to be given to several other risk factors. It remains to be seen if later attempts might be more successful."*

When the risk of death over the next ten years was calculated according to the SCORE risk function, the nurses were able to reduce this risk by 17%. Professor Peters noted that these results were achieved against a background of medical care that was better than expected, with risk factor levels in the study population more favourable than those reported in the literature - and with excellent adherence to medication in both groups. This high level of care in the control group, he added, may have been influenced by participation in the trial.

"The nurse programme was practical and well attended by the patients," he said. *"More than 93% of patients attended all visits to the nurse. These findings are very encouraging and support the initiation of prevention programmes by nurses to help patients reduce their risk of future complications."*



Report on: The European Society of Cardiovascular Prevention and Rehabilitation are holding a training course *"How to Improve: Advanced Training Programme in Cardiac Rehabilitation and Exercise Training"*

Scribed by Rosin Brennan Cardiac Rehabilitation Co coordinator St Colmcilles Hospital, Loughlinstown Co Dublin
(Recipient INCA Educational Bursary)

The beautiful Swiss city of Bern was the setting for the **"How to improve: Advanced training programme in Cardiac Rehabilitation and Exercise training"** run by the European Association for Cardiovascular Prevention and Rehabilitation in association with the European Society of Cardiology. Thanks to the bursary that I was lucky enough to receive from INCA I was able to attend this two and a half day intensive course and learn about the most current updates in Cardiac Rehabilitation and Prevention from European experts.

The first day covered a range of topics from Cardiac Rehabilitation in specific populations to assessment of subclinical arteriosclerosis to psychosocial aspects in Cardiac Rehab. Professor Hugo Saner, Director of the Swiss Cardiovascular centre in Bern and a well known name for anyone working in Cardiac Rehab, opened the course with his presentation on his cardiovascular rehab programme. This centre has been developing this programme for years and now includes neurofit, a multidisciplinary programme for individuals following a TIA or a cerebrovascular event with preserved physical and psychological capabilities, diafit a diabetes rehabilitation programme and a specific training programme primarily centred on walking for individuals with peripheral vascular disease. They also run the traditional Cardiac Rehab programme that we'd be familiar with in Ireland. There were also a number of interesting presentations on exercising individuals with ICD's, those with COPD and individuals following aortic dissection and heart transplantation.

The usefulness of the coronary calcium score opened the section on assessment of subclinical or progression of clinical arteriosclerosis. Calcium scoring may be the way forward as a non-invasive screening test for CAD. Screening makes sense if it is done for a disease of high prevalence such as CAD, there is efficient therapy available for the disease, (in this case medications, PCI, CABG) and there is a reliable screening test, where the advantage of screening outweighs the risk of the test. Coronary calcium scoring has been shown to be an accurate and reproducible screening test, which is low risk due to the low radiation dose. It can detect and quantify coronary artery calcification using "thick" 3mm CT slices - a low radiation dose, with no contrast material necessary. Coronary artery calcification is associated with remodelling and atherosclerotic plaques and is an indicator of advanced stage plaque formation. Imaging of intima-media thickness using non-invasive methods such as carotid ultrasound, MRI and CT angio was also discussed.

Day two began with a number of presentations regarding psychosocial aspects of Cardiac Rehabilitation. The issue of post traumatic stress syndrome (PTSD) after Myocardial Infarction was highlighted, which has a weighted prevalence of almost 15%. PTSD in post MI patients is associated with poor health habits; sleep disturbances, low adherence to cardiac therapy and pathophysiologic changes including endothelial dysfunction. Psychotherapy, including cognitive behavioural therapy and trauma focused therapy, and/or

psychopharmacology, using SSRI's and preferably avoiding benzodiazepines are suggested therapies that may work for these patients. PTSD post MI has been identified as a clinically relevant entity, with more preventive and therapeutic studies needed in the future.

Anxiety and Depression have become long established as factors increasing the risk of a major coronary event. The "meaning" of CAD to individuals is associated with both loss appraisals (which is associated with depression) and threat appraisals (associated with anxiety). Detection of anxiety depends on elucidation of future focused fearful thoughts, with treatment focusing on correcting cardiac misconceptions, preventing avoidance behaviours and reducing hyper vigilance. Detection of depression depends on alertness to appearance, behaviour and speech (70% sensitivity) and elucidation of the meaning of their cardiac event, i.e. what the individual has given up since their MI or how they are different since their cardiac event. Depression and anxiety are intertwined with CAD and the role of cognitive behavioural therapy in Cardiac Rehabilitation needs to be examined more closely.

Perhaps one of the more light-hearted presentations was by Dr. Stefan Hofer from Innsbruck, Austria. He gave a very comprehensive overview of the role of social isolation and personality in atherosclerosis and CAD. He highlighted the Canadian Nova Scotia

Health Survey, with their "Don't worry, be happy" study outcome, that demonstrated a reduced 10 year incident of CAD in individuals who were happy. He ended his presentation with the story of Juan Mann, an Australian man who set up the free hugs campaign. If you're reading this you should Google Juan Mann and find the YouTube video, as sometimes all we do need is a hug!

The last day of the course introduced some interesting studies that are being conducted in relation to physical exertion in high risk patients. One such study conducted in Switzerland, investigated the safety and tolerance of high altitude exposure (3454m) in non-acclimatized patients with stable chronic heart failure. The study demonstrated that these patients had no exercise induced cardiac ischaemia, severe dyspnoea or symptomatic hypertension on both rapid ascent and a 4-5 hour stay.

Professor Hugo Saner closed the course with a presentation on future directions in cardiovascular prevention. Maybe we will need to move from Cardiac Rehab to Cardiovascular Rehab in the future. However even in Bern where they seem to be at the cutting edge of Cardiovascular Rehab and have a number of innovative programmes at their fingertips, they still have to fight against cutbacks. As Professor Saner said we need to protect the services we have now and fight to maintain or improve the services we currently offer our patients.



Educational Bursary: Advanced Health Assessment Course

Scribed by Mary O'Connor Mater Private Hospital (Recipient Educational Bursary)

I undertook the Professional Certificate Advanced Health Assessment Course in UCD in September 2009. It is a stand-alone module with 15 ECT Level 9 credits, delivered one day per week over one semester. It had been a number of years since I had undertaken any educational courses so the short duration of the course appealed to me. In addition, the fact that I could work towards a Masters degree by undertaking other Professional Certificate courses over time really appealed to me.

The course objectives are the development of advanced theoretical knowledge and clinical skills to perform a complete advanced physical assessment and to undertake a comprehensive health history on your patients in clinical practice.

A "hear one, see one, do one" principle provided the format for the weekly study day. Each study day a presentation on a specific system was delivered by nurses, the majority of whom were Advanced Nurse Practitioners (ANP's) or ANP Candidates working in the relevant speciality. This was most useful as these experts imparted their knowledge and expertise on a very practical basis and gave insights and tips on the day to day practicalities in the clinical setting. This was followed by a video presentation on the assessment of the relevant system outlining the key skills to be developed in the clinical assessment. Finally in the clinical skills laboratory the students paired up to perform assessments on each other to develop and perfect the necessary assessment skills.

The clinical skills laboratory was particularly useful. Eileen Furlong and Katie Wedgeworth (course lecturers) were excellent teachers and facilitators and imparted many pearls of wisdom to us. The students in my class came from various specialities and disciplines

which enhanced the learning opportunities. Some students had no prior knowledge or experience of the system in question but others had clinical experience in the therapeutic field and readily shared their knowledge and experiences. These sessions were particularly interactive. Unsurprisingly there were a few new diagnoses and discoveries, some incorrect and some valid when checked by the course lecturers.

For exam purposes the Advanced Health Assessment component of the course required 3 practical demonstrations throughout the course. The final demonstration involved a "head to toe" assessment of the patient. I was fortunate to be able to meet a classmate weekly to practice physical assessment skills and this practice and familiarity with the physical assessment process and the development of the various clinical skills really stood to us at exam time.

The Comprehensive Health History component of the course consisted of 2 history takings where we were given specific patient scenarios with an acute and chronic condition respectively. The "patient" was instructed to answer and provide only information that was requested by the "clinician" otherwise no other additional information was to be forthcoming. Good clinician communication skills enhance the history taking and you learn that the clinician must utilise a range of questioning skills from open to closed and focused to broad questioning. Comprehensive Health History taking consists of 7 components and failure to address a component may result in an incomplete history taking or impede the clinician's decision making process and ultimately their ability to arrive at a correct diagnosis.

We also had to conduct and record a Comprehensive Health History with a friend/relative and to critique our

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own performance. This was very insightful as it highlighted areas for improvement or areas which you may be uncomfortable with or find difficult to address in the history taking.

Two things which I found very helpful in the history taking despite them being very obvious was to clarify what brought the "patient" to attend you and secondly to ask the patient "is there anything else you would like to tell me" before finishing up the history taking as details that they thought not relevant to your questioning or to the reason for their visit may be revealed with these questions.

As a consequence of time and work demands the physical assessment and history taking may be focused to your relevant clinical specialty. The benefit of having the skills to perform a comprehensive health assessment and history taking ensures that you know when something is not right and to refer the patient on for further assessment.

I would like to thank the Irish Nurses Cardiovascular Association for this Educational Bursary which made a significant contribution towards the costs of the course.



Irish Cardiac Society in association with the Irish Nurses Cardiovascular Association Cardiovascular Nurses Scientific Conference 7th October 2010 Morning Session

Scribed by: Geraldine Lynch, Chest Pain CNS, Rapid Access Chest Pain Clinic, Blackrock Clinic

Chaired by Audrey Kearns, RGN, St. James's Hospital and Geraldine Lynch, Chest Pain CNS, Blackrock Clinic

This conference took place on 7th October 2010 at the Radisson Blu Hotel, Sligo and was opened by Kate O'Donovan President of INCA. This followed by a welcoming address by Prof. Declan Sugrue, President of the ICS.

The first speaker was Dr. Kieran Daly, Consultant Cardiologist, University College Hospital Galway who presented on an "Overview of the HSE Initiated Acute Coronary Syndrome Programme". Dr. Daly compared the benefits of primary percutaneous coronary intervention (PPCI) and thrombolysis in treating ST elevation myocardial infarction (STEMI). Dr. Daly highlighted that PPCI is superior as the reperfusion therapy of choice as it achieves rapid and reliable reperfusion to occluded arteries. He stressed the importance of a door to balloon inflation time of less than ninety minutes as crucial in delivering maximum benefit. He focused on the DANAMI – 2, 2003 trial which highlighted that PPCI is superior to thrombolysis. Dr. Daly stated the importance of PPCI as a team approach which is achieved through a protocol for patients with STEMI. He highlighted that as most of the PPCI centres are in Dublin access to such emergency intervention is largely dependent on location.

The second speaker was Dr. Donal Murray Consultant Physician, Sligo General Hospital who delivered an intriguing presentation on a "Mobile Coronary Care Unit Experience in the North West". This service was established in 1991 and has become an integral component of care for patients with STEMI in Sligo. The team consist of a medical Registrar and a CCU Staff Nurse who offer a twenty four hour service to GP's or an ambulance control team who alert the mobile CCU (MCCU) of a patient who is having a possible MI. The team are driven by a local taxi driver who drives the MCCU (as they are more familiar with the rural area in

the event of a detour being required!). Patients have a 12 lead ECG, clinical examination and thrombolysis is administered if appropriate. A total of 970 calls to this service have been made over the past 9 years, 487 from GP's and 483 from ambulance personnel. The MCCU call to arrival times are impressive at 30 minutes with an average call to needle time of 45 minutes and a door to needle time of 7 minutes. Dr. Murray agrees that primary PCI has emerged as the treatment of choice if facilities are available but that the MCCU service is an effective and safe service which offers reperfusion adhering to the recommended guidelines.

The third speaker was Paul Stoneman, ANP Emergency Cardiology, Beaumont Hospital, Dublin who presented on "ECG in Acute Coronary Syndrome Case Studies". Paul discussed an interesting case study on a female patient who attended an emergency department with chest pain. This patient also had learning difficulties and a 12 lead ECG which showed a posterior infarct. An emergency doctor reviewed the patient but unfortunately initially failed to diagnose an MI. Paul reported that a presentation of chest pain accounts for 5-20% of all admissions to emergency departments. 70% of these symptoms are typical of acute coronary syndrome (ACS) and 30% are atypical. A total of 2-10% of patients with chest pain are misdiagnosed and are discharged home in error. Paul highlighted the importance of taking a good clinical history from patients as well as having clinicians such as chest pain nurses working in emergency departments who are experts in analysing ECG's.

The fourth speaker was Patricia Crocock, Diabetes Nurse Specialist, Sligo General Hospital, Sligo who gave an informative presentation on "Diabetes and Cardiovascular Disease". Patricia reported that

according to Wild et al 2004 in 2007 there were 246,000,000 people worldwide living with diabetes and this is expected to increase by 55% by 2025 to 380,000,000. In the Republic of Ireland alone there are 141,063 adults with diabetes and it is more prevalent in females. She pointed out that 80% of patients with diabetes die from a cardiovascular event. Patricia highlighted that patients are often aware of the risk of developing retinopathy but frequently fail to realise that diabetes is a risk factor for developing coronary artery disease.

The final speaker was Anne McGowan, CNS, Cardiac Rehabilitation, Sligo General Hospital who spoke on "[New Challenges in Cardiac Rehabilitation](#)". Anne delivered a comprehensive account of patient groups who benefit from cardiac rehabilitation. In addition to referrals post MI, post PCI, post CABG or post AVR/MVR the evidence supports the participation in cardiac rehabilitation (CR) for patients with heart failure (HF), ICD's and Grown Up Congenital Heart (GUCH) defects. In relation to patients with HF, longer warm-up times, lower intensity exercise training and longer programme times are required of 16-26 weeks. Exercised based CR can have a positive impact on neurohormonal changes thus reducing brain natriuretic peptide (BNP) and catecholamines.

We would like to thank all of the speakers who provided an excellent insight into cardiovascular services in the West of Ireland.

ICS Afternoon Session

Scribed by: Mary Kerins CNM Cardiac Rehabilitation,
St James's Hospital, Dublin.

Lub Dub of Hart Sounds: Rita Smith,
School of Nursing and Midwifery, NUI Galway.

Rita informed the audience that to perform a cardiac assessment one must integrate the principles of inspection, palpation and auscultation, thereby detecting confidently the heart sounds of S1 and S2. She brought us through these principles clearly and concisely. The detection of other heart sounds – systolic and diastolic murmurs were also described. The use of audios made this presentation very clear along with a very useful website <http://filer.case.edu/>

Dr Joe Galvin, Consultant Cardiologist, Connolly Hospital Dublin, presented us with a very interesting topic - "[The Athlete's Heart](#)". There is 1 in a 1000 sudden cardiac deaths per year and they are more common in athletes and more common again in the older athlete (30-35 years). Interestingly, more deaths in sporting events occur in spectators. Dr Galvin discussed Sudden Arrhythmia Death Syndrome (SADS) and the causes found on autopsy, they included Brugada Syndrome, Long QT Syndrome, Short QT Syndrome, Wolf Parkinson White, and channelopathies. Some normal autopsies were noted. The importance of screening the families of these peoples was emphasised.

The afternoon session was concluded by Dr Jim O'Neill, Consultant Cardiologist, Connolly Hospital Dublin. He presented an "[Overview of devices for conduction and rhythm disturbances](#)". In this light hearted and motivated presentation he discussed firstly pacemakers and then defibrillators (ICD). The latter was divided into Atrial and Ventricular. He went on to discuss who needs an ICD which included those with structural heart disease and those with one episode of SADS. It is not indicated in those with incessant ventricular fibrillation or tachycardias, NYHA class IV and those with significant psychiatric disease.

Heart Failure with Left Ventricular Systolic Dysfunction

Fidelma Hanley, CNS in Heart Failure Services, Sligo General Hospital

Scribed by: Emer Lodge Advanced Nurse Practitioner Cardiothoracic Surgery St James Hospital

Fidelma Hanley who is a CNS in Heart Failure Services in Sligo General Hospital spoke on heart failure, she outlined the signs & symptoms, diagnosis, treatment options and then followed this up with two interesting case studies.

Heart Failure (HF) is a clinical syndrome in which patients have signs & symptoms of HF and objective evidence of structural or functional abnormality of the heart at rest. Most patients with HF have evidence of both systolic and diastolic dysfunction at rest or on exercise.

Symptoms – dyspnoea at rest or on exertion, orthopnoea, cough (productive white frothy sputum), paroxysmal nocturnal dyspnoea, decreased exercise tolerance, anorexia, dizziness, weakness or blackouts.

Signs – sudden increase in weight (2kgs/2 days), tachycardia, tachynoepia, 3rd heart sound, increased JVP, pulmonary congestion, peripheral oedema, ascites, hepatomegaly, pulmonary rales/crackles/effusions. Diagnosis of HF is based on signs, symptoms and basic investigations such as; CXR, ECG, echocardiograph, B.N.P., Bloods (U&E, LFT, TFT, FBC, cardiac enzymes). Advanced diagnostic investigations include; exercise stress test, cardiac MRI, stress echo, coronary angiogram, endomyocardial biopsy. ESC guidelines on

the management of heart failure are well established and widely used. The treatment algorithm for patients with symptomatic heart failure and reduced ejection fraction is available at www.escardio.org/guidelines

Management with a multidisciplinary team approach is advised. Treatment options include non pharmacological measures, pharmacological therapy, devices/ surgery and palliative care.

- Non pharmacological measures – lifestyle modification, diet, compliance, exercise and rehabilitation.
- Pharmacological therapy – includes therapy that improves symptoms and medications which improve survival (diuretics, ace inhibitors, digoxin, beta blockers, nitrates).
- Devices & Surgery – coronary revascularisation, valve repair/replacement, cardiac resynchronisation therapy, ICD, LVAD, transplantation.

Conditions associated with poor prognosis are; ischaemic aetiology, advanced age, arrhythmias, poor compliance, renal dysfunction, anaemia, diabetes mellitus, COPD and depression. Palliative care expertise is desirable and is increasingly being sought in end stage heart failure patients.

Pulmonary Hypertension

Caitriona Minnock, CNM in Pulmonary Hypertension.
Mater Misericordiae Hospital, Dublin.

Scribed by: Emer Lodge Advanced Nurse Practitioner Cardiothoracic Surgery St James Hospital

Pulmonary hypertension (PH) is a rare disease. Dublin's Mater Hospital is the National PH referral centre. Caitriona Minnock a CNM from the service gave an interesting presentation on the condition and the specialist service provided in the Mater Hospital. The PH team consists of one Respiratory consultant, two CNM's, one service coordinator, one specialist registrar and one pharmacist. Caitriona outlined the definition and classification of PH and also described the challenges in diagnosing and managing the condition.

PH is defined as pulmonary artery pressure of >25mmhg. The prevalence of PH is 52 cases per million, less than 1:2000 in Europe are affected. It affects more women than men, ratio 2:1 and the average age of onset is 30's – 40's group. PH carries significant morbidity and mortality. If left untreated life expectancy is worse than malignancy. Median survival is 2.8 years (D'Alonzo et al. 1991). It is a progressive disease however, early intervention with treatment delays disease progression.

Diagnosis of PH is often delayed due to its low prevalence and non specific symptoms. Symptoms of PH include; shortness of breath, unexplained tiredness, chest pain, dizziness, palpitations, syncopae and oedema, however, patients can often be asymptomatic in the early stages. There are three steps towards diagnosis of the condition, they are; suspect, detect, characterise.

Diagnostic tests include, ECG, echocardiograph, CXR, ventilation perfusion scan, CT pulmonary angiogram, serological testing, liver ultrasound, right & left heart catheterisation and cardiac MRI scan.

WHO have devised a functional classification for PH – it helps in assessment of the severity of the condition.

Class I - no limitation of usual activities.

Class II – Mild limitation of usual activities, no discomfort at rest. Normal physical activity causes increased dyspnoea, fatigue, chest pain or pre syncopae.

Class III – marked limitation of physical activity. No discomfort at rest. Less than ordinary activity causes increased dyspnoea, fatigue, chest pain or pre syncopae.

Class IV – patient unable to perform any physical activity at rest and may have signs of right ventricular failure, dyspnoea and /or fatigue and syncopae/near syncopae may be present at rest. Symptoms are increased by almost any physical activity.

For treatment PH is characterised into five groups. Pulmonary arterial hypertension. PH due to left heart disease. PH due to lung disease and /or hypoxia. Chronic thrombotic pulmonary hypertension. PH with unclear multifactorial mechanisms.

Treatment options for PH include;

Interventional procedures.

Conventional therapies; oxygen, anticoagulants, diuretics, inotropes and calcium channel blockers.

Advanced therapies; prostanooids, nitric oxide, PDE 5 inhibitors, endothelin receptor antagonists and combination therapy.

The goals of treatment of PH are; improve quality of life, improve to functional class I or II. Improve 6MWD to >380m, improve haemodynamics and alleviate symptoms.

Future plans for the PH service in the Mater include; increasing awareness of PH, improving referral patterns to the national referral centre, participating in new drug clinical trials, scheduling patient meetings and charity events.

DATES FOR YOUR DIARY

NATIONAL MEETINGS

INCA Annual Scientific Meeting

Tullamore Court Hotel March 25th 2011

EUROPEAN MEETINGS

11th Annual Spring Meeting of the European Society of Cardiology

Council on Cardiovascular Nursing

and Allied Professions (CCNAP),

Brussels, Belgium, 1-2 April 2011

Euro Prevent 2011

Geneva – Switzerland 14 April to 17 April 2011

Heart Failure Congress

Gothenburg, Sweden, 21-24 May 2011

EHRA EUROPACE

Madrid, Spain, 26-29 June 2011

For information on national meetings please login to www.incanursing.ie

**Please note you may join or renew membership
for 2011 at the national meetings
(An active email address is all you need to
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www.incanursing.ie

For more information on European meetings please log on to
www.escardio.org

Any submissions or suggestions for the newsletter?
Please submit to Rita Smith, Newsletter Editor C/O
Admin@incanursing.ie

