



BACPR Exercise Professionals Spring Group Study Day

Expanding our Horizons

Friday 15th May 2015

Aston University, Birmingham




The British Association for Cardiovascular Prevention and Rehabilitation (BACPR) is an affiliated group of the British Cardiovascular Society. BACPR is a multi-disciplinary body to represent and serve the interests of all professionals engaged in cardiac rehabilitation and aims to ensure programmes for cardiovascular prevention and rehabilitation are clinically effective and achieve sustainable health outcomes throughout the UK. Membership consists of a wide range of disciplines involved in improving cardiovascular health - typically including cardiologists, GPs, nurses, physiotherapists, dietitians, psychologists, occupational therapists, exercise physiologists and exercise instructors. Members are from both primary care and the acute sectors together with individuals from leisure services and the fitness industry.

BACPR Education coordinates both the well-respected BACPR Specialist Level 4 Exercise Instructor qualification and a range of short CPD courses for health and exercise professionals involved in cardiovascular prevention and rehabilitation. Delegates receive comprehensive peer reviewed course material and all courses are delivered by specialist professionals from the UK who are currently involved in the area of cardiovascular rehabilitation.

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Dear Delegate,

A very warm welcome to the 9th British Association for Cardiovascular Prevention and Rehabilitation - Exercise Professionals Group (BACPR-EPG) Study Day. Today's theme is 'Expanding our Horizons.' Following on from the success of last year's Study Day, 'Pushing the Boundaries in Cardiovascular Prevention and Rehabilitation', today's programme will continue to address the ever expanding remit of the exercise component of Cardiac Rehabilitation (CR). The success of CR in the U.K., and beyond, ideally positions the CR model to be replicated in other clinical populations. As CR exercise professionals, should we consider this an unwelcome distraction, or alternatively, a gilt edged opportunity to allow greater numbers of patients to benefit from our expertise and to potentially ensure the long term survival of CR programmes in the UK? In the ever changing landscape of clinical commissioning for long term disease management, will CR in its purest form be confined to the past? Will the future hold a more generic and less condition specific model of exercise programme delivery for disease prevention and rehabilitation? Today, we have an impressive array of highly acclaimed speakers to address these pertinent questions.

Exercise rehabilitation in cancer survivors is an increasingly topical issue which sits naturally within the framework of CR. To discuss the effects of chemotherapy on the heart, and the role of physical conditioning in reversing these effects, we are delighted to welcome Professor Mark Haykowsky, from the Faculty of Rehabilitation Medicine, University of Alberta, Canada, as our keynote speaker. As a world leader in the field

of exercise training in cardiovascular disease, Professor Haykowsky's work has encompassed many familiar areas, including heart failure with preserved ejection fraction (HFpEF) and the benefits of commencing exercise early post-MI. A true 'big hitter' in the world of exercise training in cardiovascular disease, Professor Haykowsky's academic expertise and practical experience in this field is second to none. Your everyday practice in CR will undoubtedly have been influenced by his work.

The BACPR-EPG, as a sub group of BACPR, is a collaborative venture between three national groups of exercise specialists: the BACPR Exercise Instructor Network (EIN), the Association of Chartered Physiotherapists in Cardiac Rehabilitation (ACPICR) and the British Association of Sport and Exercise Sciences (BASES). We exist as an inter-professional forum for the promotion of excellence in the exercise component of cardiovascular disease prevention and rehabilitation. Members of the group share the common goal of striving to ensure that all client and patient groups, either with cardiovascular disease (CVD), or those at high risk of developing the disease, receive quality assured evidence-based physical activity and exercise services. In advance of the day I would like to take the opportunity to wholeheartedly thank all of the EPG committee and the BACPR Education team for their tireless devotion to the preparations for today's event.

So, without further ado, let's get started. We encourage you to participate fully today by interacting with the speakers at every opportunity, during formal question and answer sessions at the end of their talks and during

breaks and lunch. We want you to leave at the end of today with renewed enthusiasm for the great work that you do in cardiovascular disease prevention and rehabilitation and with new ideas and confidence to continually improve the quality of the services you provide. Please complete the email survey to provide an honest evaluation – we really want to know if the programme has met your expectations.

Enjoy the day!



Dr Gordon McGregor
Chair, BACPR Exercise Professionals Group



BACPR Exercise Professionals Group Committee

Dr Gordon McGregor	BASES	Samantha Breen	ACPICR
Mark Campbell	BASES	Laura Burgess	ACPICR
Brian Begg	BACPR Exercise Instructor Network	Paul Stern	ACPICR
Katie Plant	BACPR Exercise Instructor Network	Annie Holden	Past Chair
		Dr John Buckley	Founder member



8:45 – 9:15	Coffee, Registration and Exhibition	
9:15 – 9:30	Welcome, housekeeping and BACPR EPG Update	Dr Gordon McGregor Chair , BACPR EPG
Session 1: Exercise and Cancer. Chair: Professor Gill Furze, President BACPR		
9:30 – 9:50	Cancer and exercise - an overview	Professor John Saxton , Northumbria University
9:50 – 10:30	Keynote: Determinants of exercise intolerance and benefits of exercise training in women with breast cancer	Professor Mark Haykowsky , Alberta Heart Institute
10:30 – 11:00	Cancer patients in a cardiac rehabilitation setting – does it work?	Russell Tipson , Action Heart, Dudley
11:00 – 11:30	Break and Exhibition	
Session 2: Generic Exercise Rehabilitation. Chairs : Professor John Buckley and Samantha Breen		
11:30 – 11:55	Cardiac and Pulmonary Rehab - is there any real difference?	Dr Rachel Garrod , Freelance (affiliated with Kings College and St Georges University, London)
11:55 – 12:20	Generic Rehabilitation – what’s the evidence?	Jenni Jones , Croi Heart Centre, Galway
12.20 – 12.40	Interactive Expert Panel Discussion	
12:40 – 12:50	Oral Abstract Presentation Cancer rehabilitation from Liverpool Heart and Chest Hospital	Andrew Perry
12:50 – 13:00	Oral Abstract Presentation Developing a supervised exercise programme for patients with peripheral vascular disease	Eddie Caldow
13.05 – 13:35	ACPICR AGM	
13:35 – 14:05	BACPR Exercise Instructor Network AGM	
13.00 – 14:15	Lunch and Exhibition	
Session 3: Chairs: Dr Gordon McGregor and Brian Begg		
14:15 – 14:45	‘Whats Ap’ in Physical Activity Monitoring?	Dr Charlotte Edwardson University of Leicester
14:45 – 15.15	‘HIITing’ heart disease - what’s the evidence?	Dr Lee Ingle , University of Hull
15.15 – 15:55	Anti-remodeling benefits of early exercise training post myocardial infarction	Professor Mark Haykowsky , Alberta Heart Institute
15:55 – 16.05	Panel discussion	
16.05 - 16:10	Closing Remarks / Tea and Networking opportunity	Dr. Gordon McGregor

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Arrhythmia Alliance is a coalition of charities, professional medical organisations and industry groups that works to promote the timely diagnosis and effective management of arrhythmias. By raising awareness and campaigning for the improved detection and care of heart rhythm disorders, Arrhythmia Alliance aims to extend and improve the lives of the millions around the world that these conditions affect.



Our mission is to win the fight against cardiovascular disease. We beat cardiovascular disease by funding ground breaking research and we'll continue to support and empower those living with it across the UK.



CanRehab leads the way in providing cancer rehabilitation training programmes, seminars and workshops in the UK. We offer educational and professional support to anyone wishing to develop exercise based rehabilitation programmes for cancer patients



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Imperial College London

The interdisciplinary programme in Preventive Cardiology (MSc, PG Dip or PG Cert) at Imperial College is aimed at health professionals with a role in the prevention of cardiovascular disease, for example doctors, nurses, dieticians, physiotherapists, physical activity specialists, pharmacists, psychologists, occupational therapists, sports scientists, health promotion and public health specialists. We also attract graduates who have studied the above disciplines at undergraduate level.

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Professor Gill Furze

Professor Gill Furze is currently President of the British Association for Cardiovascular Prevention and Rehabilitation (BACPR), and Professor of Cardiovascular Rehabilitation at Coventry University. She was one of the core authors of the BACPR Standards and Core Components for Cardiovascular Prevention and Rehabilitation (2012), a key document for the 350 cardiac rehabilitation programmes within the UK. Prior to moving to Coventry, Gill Furze was a senior member of the British Heart Foundation Care and Education Research Group (led by Professor Bob Lewin) at the University of York.



Samantha Breen MCSP Mphil

Samantha is a Therapy and Dietetic Service Manager for Critical Care and Surgery at Manchester Royal Infirmary. Samantha has over 20 years experience as a clinical lead physiotherapist in the field of cardiovascular disease prevention and rehabilitation with a diverse cardiovascular population including patients with: heart failure, implantable devices and congenital heart disease. In 2004 she completed a project for the Coronary Prevention Group, researching current cardiac rehabilitation in England and gained her MPhil in Cardiac Rehabilitation from Brunel University in 2007.

Samantha is current Chair of the Association of Chartered Physiotherapists in Cardiac Rehabilitation (ACPICR) and immediate Past Chair of British Association of Cardiovascular Prevention and Rehabilitation (BACPR) Exercise Professional Group. Samantha is actively involved in many ACPICR and BACPR activities: ACPICR Standards, Competences, and Role of the Physiotherapist documents; and in course development and delivery. Samantha is director of the following courses: BACPR Advanced Application of Physical Activity and Exercise in the Management of Cardiovascular Disease and BACPR Exercise Instructor Training in the Manchester area, and tutors on the BACPR Heart Failure courses. Samantha contributed to the DoH CR Commissioning Pack 2010, NICE Heart Failure, and CR commissioning guidelines update 2011. Samantha has also contributed to chapters of several cardiovascular prevention and rehabilitation textbooks.



Professor John Buckley BPE, MSc, PhD, FBASES, FHEA

- Professor of Applied Exercise Science
- Fellow of the Higher Education Academy
- Fellow of the British Association of Sport & Exercise Sciences (BASES)
- BASES Accredited Exercise Physiologist
- Programme Leader MSc Cardiovascular Health and Rehabilitation, University of Chester
- Founding Chair, International Council of Cardiovascular Prevention and Rehabilitation
- Past President BACPR (2009 - 2011)
- Founding Committee Member of BACPR-EPG
- Tutor for many BACPR Courses
- Past Chair of BASES Division of Physical Activity for Health (2004 - 2008)
- Founding Chair of BASES Exercise for Health Practitioners' Interest Group
- Exercise Physiology Advisor to Skills Active Level 4 Standards

John's post-doctoral work has included collaborative published research with Emeritus Professor Gunnar Borg, inventor of the Borg ratings of perceived exertion scales.

His experience over the years in exercise testing and prescription includes performing over 7500 functional capacity tests to clients, patients and athletes for individual exercise programmes. In addition to helping cardiac patients and exercise referral clients, he has helped hundreds of people train for half- and full-marathons following functional testing. In 1988 John, as a Founding Managing Partner, started the Lifestyle Exercise & Physiotherapy Centre, Shrewsbury. For 21 years this business not only involved a specialist fitness centre and physiotherapy clinic, it provided contracted services in Exercise & Physiotherapy to the local PCT and Hospitals, including John's front-line work as an Exercise and Cardiac Rehabilitation Specialist at the Royal Shrewsbury Hospital and the University Hospital of North Staffordshire. For 17 years from 1989 to 2006, his work was linked with teaching and research in the Physiotherapy School at Keele University. He is now a Senior Lecturer at the University of Chester leading up the MSc in Cardiovascular Rehabilitation and the PGCert in Cardiovascular Rehabilitation at the Asian Heart Institute in Mumbai, India. He currently works with the Cardiac Rehab' team at the Countess of Chester Hospital combining work in advising patients whilst tutoring University of Chester post-graduate students. For 14 years he was the Exercise Physiology Consultant to the national McArdle Disease and Neuromuscular Clinic now based at the University College Hospital London. John has authored and edited textbooks, numerous chapters in BACPR, BASES, and sports medicine manuals/guidelines, and he has published research in internationally renowned journals in the area of perceived exertion, exercise testing and prescription, and more recently on the effects of sedentary work on cardiometabolic health.



Professor John Saxton

John Saxton is a Professor in Clinical Exercise Physiology and Head of the Department of Sport, Exercise & Rehabilitation at Northumbria University. He is a BASES Accredited Research Physiologist, member of the Physiological Society and has served on Council for the Society for Research in Rehabilitation. His research is focused on the role of exercise and other lifestyle factors in the prevention and management of age-related long-term conditions. He is particularly interested in the role of exercise in primary and secondary cancer prevention and has conducted a number of randomised controlled trials with breast, prostate and colon cancer patients.

As principal investigator or co-Investigator, his research has been supported by Cancer Research UK, the American Institute of Cancer Research and the UK Prostate Cancer Charity. In 2010 he was the lead editor of a book entitled "Exercise and cancer survivorship: impact on health outcomes and quality of life", published by Springer Scientific, New York and in 2011 was the sole editor of a second book entitled "Exercise and chronic disease: an evidence-based approach", published by Routledge, UK.

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- ² *WCRF/AICR (2007) Food, Nutrition, Physical Activity, and the Prevention of Cancer: A Global Perspective.*
- ³ *Speck RM, Courneya KS, Mâsse LC, Duval S, Schmitz KH (2010). An update of controlled physical activity trials in cancer survivors: a systematic review and meta-analysis. J Cancer Surviv 4, 87-100.*
- ⁴ *Ballard-Barbash R, Friedenreich CM, Courneya KS, Siddiqi SM, McTiernan A, Alfano CM (2012). Physical activity, biomarkers, and disease outcomes in cancer survivors: a systematic review. J Natl Cancer Inst 104, 815-840.*

ABSTRACT : Cancer and exercise - an overview

Each year in the UK, a third of a million people are diagnosed with cancer, with disease of the breast, lung, prostate and bowel accounting for 54% of all new cases. However, due to advances in early cancer detection through appropriate screening programmes and more effective treatments, half the people diagnosed with cancer now survive their disease for at least ten years¹.

Epidemiological data has provided evidence of an inverse association between physical activity (PA) and cancer risk at a number of sites, including the colon, breast (postmenopausal women) and endometrium, whereas at other sites, including the prostate, the evidence is more equivocal². PA also has an important part to play in cancer survivorship. Studies show that PA interventions during and after a cancer diagnosis can help patients to manage and/or overcome the physical and psychological consequences of the disease and its treatments, thereby improving the quality of cancer survivorship³. Recent cohort studies have also provided evidence that a physically active lifestyle after a cancer diagnosis can improve survival⁴.

This presentation will provide an overview of evidence supporting a role for PA in primary and secondary cancer prevention, together with an overview of current PA recommendations and adherence issues in this context.

Professor Mark Haykowsky



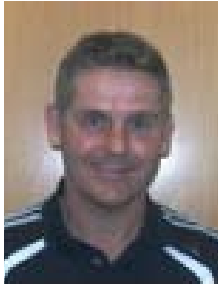
Dr. Haykowsky is a Professor in the Faculty of Rehabilitation Medicine at University of Alberta (U of A). He completed his Ph.D. in cardiovascular exercise physiology at U of A in 1998 followed by a postdoctoral fellowship (Heart Failure specialization) in the Division of Cardiology, Faculty of Medicine (U of A). Professor Haykowsky's research program examines: (1) the biologic mechanisms responsible for the decline in health related physical fitness across the heart failure continuum, and the role of exercise training to restore cardiovascular and skeletal muscle function; (2) the efficacy of exercise training to reverse chemotherapy and/or biological therapy mediated cardiotoxicity in women with breast cancer, and; (3) cardiac mechanics and left ventricular (LV) remodeling in athletes. Professor Haykowsky has published over 165 papers in high-impact medical journals and he has been an invited speaker at numerous national and international cardiology, cardiac rehabilitation, physiology and exercise science meetings. Dr. Haykowsky has supervised/committee member for 92 trainees during the past 16 years.

References

- ¹ Ferlay J, Soerjomataram I, Dikshit R, Eser S, Mathers C, Rebelo M, Parkin DM, Forman D, Bray F. Cancer incidence and mortality worldwide: Sources, methods and major patterns in globocan 2012. *Int J Cancer*. 2015;136:E359-386
- ² Jones LW, Courneya KS, Mackey JR, Muss HB, Pituskin EN, Scott JM, Hornsby WE, Coan AD, Herndon JE, 2nd, Douglas PS, Haykowsky M. Cardiopulmonary function and age-related decline across the breast cancer survivorship continuum. *J Clin Oncol*. 2012;30:2530-2537
- ³ Jones LW, Haykowsky MJ, Swartz JJ, Douglas PS, Mackey JR. Early breast cancer therapy and cardiovascular injury. *J Am Coll Cardiol*. 2007;50:1435-1441

ABSTRACT: Determinants of exercise intolerance and benefits of exercise training in women with breast cancer.

Breast cancer is the most frequently diagnosed malignancy in women (1.7 million new cases in 2012 representing 25% of all cancers in women) and the most common cause of cancer death among women worldwide (522,000 deaths in 2012)¹. Recent research has demonstrated that breast cancer survivors have significant and marked impairment in cardiorespiratory fitness². Specifically, peak oxygen uptake (VO_{2peak}) is 27% lower than age-matched healthy sedentary women without breast cancer, and one-third of breast cancer survivors have a VO_{2peak} below the functional independence threshold². The reduced exercise tolerance is due to the direct effects of anticancer therapy and to indirect lifestyle factors (deconditioning, sedentary lifestyle) that simultaneously impair cardiovascular reserve³. In this session, the physiological mechanisms underpinning the reduced VO_{2peak} , and the role exercise training (and prescription guidelines) to improve overall health related physical fitness in women with breast cancer will be discussed.



Russell Tipson

Russ Tipson is an exercise physiologist and Director of Action Heart. The Action Heart service in Dudley was one of the UK's first cardiac rehabilitation programmes, with its origins dating back to the mid 1970s. Russ was a founding member of the BACR and has been a past Council Officer. He was part of the project team that developed the original BACR 'Phase IV' Instructor Course.

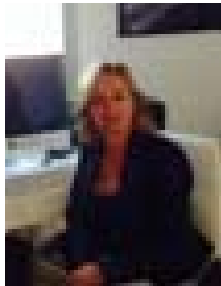
ABSTRACT: Cancer patients in a cardiac rehabilitation setting – does it work?

There is robust and mounting evidence which suggests that regular physical activity after the diagnosis and treatment of cancer can improve quality of life, decrease the utilisation of health services and promote early return to work. It is also accepted that common impairment suffered by cancer survivors may be prevented or favourably affected by physical activity.

In practice, the number of patients living with cancer is increasing dramatically, with the current figure of two million people in the UK predicted to rise by more than 3% each year. Although physical activity services for cancer patients are starting to appear, efforts to encourage physical activity are not a routine element of cancer treatment and rehabilitation pathways. Accordingly, there is a wide gap between evidence and practice with the potential opportunity for cardiac rehabilitation programmes to liaise with cancer colleagues and offer their services to cancer patients.

In line with the BACR consciously deciding to broaden its interests and become the BACPR, the recent 'direction of travel' has been for cardiac rehabilitation programmes to develop more generic cardiovascular disease prevention and rehabilitation services. This has certainly been the experience of the Action Heart programme in Dudley, with its service being recognised and highlighted in the Department of Health's 'Cardiovascular Disease Outcomes Strategy' publication.

More recently, Action Heart has linked with the Cancer Teams in Dudley to provide a physical activity service for cancer patients. The new 'Action Health' project is delivered by Action Heart in its Centre at Russells Hall Hospital, with cancer patients exercising alongside Action Heart's cardiovascular disease patients. Russell's presentation will provide early feedback with respect to Action Heart's experience of delivering cancer services in a cardiac rehabilitation setting.



Dr Rachel Garrod PhD. MSc. MCSP

Rachel graduated from Guys in 1991. Since being awarded a PhD in pulmonary rehabilitation in 2001 she has developed a strong clinical and research career. As Assistant Professor in Physiotherapy, St George's University she led on undergraduate and post graduate respiratory teaching and research. With over 50 peer reviewed publications, a number of book chapters and as editor of "Pulmonary Rehabilitation: An interdisciplinary approach," she is an international expert on COPD and Pulmonary Rehabilitation. In 2009 she returned to the clinical setting as a Consultant Respiratory Physiotherapist at Kings College Hospital, London, there she was the research and clinical lead for COPD physiotherapy services. She has recently completed a large study of exercise after surgery for lung cancer and is the lead investigator for a study evaluating the effect of physiotherapy as a treatment for chronic cough.

Rachel moved to Spain in 2013, she continues to oversee her research projects in the UK and is presently employed as non-medical research facilitator for Kings College Hospital, working remotely and with frequent visits to the UK.

Rachel's area of expertise focuses on the delivery of exercise for people with chronic health problems, on breathing retraining and physical activity therapies for people with cardio-respiratory conditions, on the management of breathing disorders such as asthma, hyperventilation, and its associated panic disorders.

ABSTRACT: Cardiac and Pulmonary Rehabilitation – is there any real difference?

Cardiac and pulmonary rehabilitation programmes aim to improve exercise tolerance, mastery and quality of life for people with chronic cardiac or respiratory disease. The programmes both offer a physical training component and a self-management / education component. There are a number of similarities between the services provided but there are also subtle differences. Do these differences matter? Could we, or perhaps - in light of the limited NHS resources available - should we be offering these as combined therapeutic services? What is the evidence supporting a joint approach? Would outcomes be improved or diminished if we offered these services together? Logistically how would we deliver a combined approach? This session will explore these questions and consider the evidence base, the practicalities and patient acceptability of a combined rehabilitation approach.

Jenni Jones MSc, BSc (Hons), MCSP, SRP, PGCertEd



Jenni is the Executive Director of the National Institute for Preventive Cardiology - an entity within the Croí Heart and Stroke Charity affiliated to the National University of Ireland Galway. She directs over 20 health programmes in heart disease, stroke, diabetes and obesity, which reside within the Croí Heart and Stroke Centre. Jenni also holds a joint appointment with the College of Medicine, Nursing and Health Sciences, National University of Ireland Galway, co-ordinating the Postgraduate Certificate in Health Promotion Approaches to Cardiovascular Health and Diabetes Prevention and the Masters & Postgraduate Diploma in Preventive Cardiology. She maintains strong connections in the UK teaching and assessing for the BACPR and is an Honorary Research and Teaching Associate at Imperial College London. Additionally, she is a member of the ESC Scientific Programme Committee of the Council on Cardiovascular Nursing & Allied Professionals (CCNAP), the immediate Past President of the British Association for Cardiovascular Prevention and Rehabilitation and Past Chair of the Association of Chartered Physiotherapists in Cardiac Rehabilitation (ACPICR).

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ABSTRACT: Generic Rehabilitation – what’s the evidence?

This session will focus on the evidence for generic rehabilitation specifically in relation to non-communicable diseases (NCDs). Around 80% of all NCD deaths result from four groups of disease including cardiovascular disease (48%), cancer (21%), chronic respiratory disease (12%) and diabetes (3.5%) (WHO, 2012). Regular exercise has well-documented preventative and/or curative effects across all of these conditions.

Current rehabilitation programmes, including cardiac rehabilitation tends to be disease-centred. Disease-centred, single or multiple lifestyle intervention programmes have been shown to be beneficial for individual disease states including coronary heart disease (Anderson and Taylor, 2014), chronic obstructive pulmonary disease (McCarthy et al., 2015; Puhan et al., 2011), diabetes (Fiocco et al., 2013) and chronic kidney disease (Howden et al., 2013).

However, the reality is that the majority of patients presenting with a chronic disease have multiple associated comorbidities. The latest report from the National Audit for Cardiac Rehabilitation shows that 50% of patients attending cardiac rehabilitation have two or more co-morbidities. Hence, one could argue is cardiac rehabilitation already delivering a model of “generic rehabilitation”? The CVD outcomes strategy supports the notion of generic rehabilitation and evolving cardiac rehabilitation services to become “chronic disease management” programmes treating atherosclerosis as a single disease (DH, 2013).

This presentation will explore evidence to date on patient outcomes in integrative models of rehabilitation – some treating CVD as a single family and others broadening even further across incorporating other NCD’s. First-hand experience of the achievements and challenges from Croí will also be shared.

Cancer rehabilitation for cancer patients from Liverpool Heart and Chest Hospital – the results

Knowsley Community Cardiovascular Service, Liverpool Heart and Chest NHS Foundation Trust, Thomas Drive, Liverpool, L14 3PE, England

Perry A, Evans Z, Faulkner S, Roose A, Gossage E

Aim of study: To augment the pilot study performed at Liverpool Heart and Chest Hospital, *'Integrating Cancer Patients into Cardiac Rehabilitation'*, using Regional Innovation Funding.

A small pilot was performed in 2012 integrating ten patients who had undergone invasive upper gastrointestinal surgery for cancer into mainstream cardiovascular rehabilitation. Initial findings demonstrated positive outcomes. The patients included in the pilot scheme showed progression both functionally (measured by walking distance, METS and VO₂), and psychologically (measure by HADS and FACT). The main reported benefits were demonstrated in walking capacity, increased confidence around exercise, and a decrease in cancer related fatigue.

Knowsley CVD service was awarded regional innovation funding (RIF) to continue this project due to the favourable clinical and psychological outcomes demonstrated in the Pilot Study. It would expand on the progress already made to patients with lung cancer.

The opportunity the RIF brings to the expansion of this project has enabled us to bring additional specialist resources (dietetics) and clinical expertise to support a more individualised rehabilitation programme for a group of patients who clearly require specific clinical expertise to promote improvement outcomes in cancer management.

Participants were identified by cancer specialist nurses at the Liverpool Heart and Chest Hospital, who offered a rehabilitation programme of exercise and education, delivered using an existing menu of choice, running concurrently for mainstream cardiovascular patients.

Clinical parameters measured have included; functional capacity, posture and range of movement, cancer related fatigue, HADs, self-perceived wellbeing, and cancer specific measures. Data from the project is currently under analysis.

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Knowsley CVD Service, Liverpool Heart and Chest Hospital, Thomas Drive, L14 3PE

Developing a supervised exercise programme for patients with peripheral vascular disease: rehab for the legs – “prehab” for the heart

Salford Royal NHS Foundation Trust - Cardiovascular Rehabilitation Service

E Caldow; S Birkett; R Taylor; K Cook.

There is a wealth of evidence showing the health benefits of supervised exercise programmes (SEP) for patients with peripheral artery disease (PAD). In August 2012 the National Institute for Health and Care Excellence (NICE) issued new treatment guidelines stating that all patients with PAD should be offered a SEP prior to any surgical intervention or medication. Unfortunately there is a national shortage of SEPs for PAD patients with most Vascular Specialist Teams stating lack of resources as the main limitations (Shaloub et al. 2009).

In March 2014 our Cardiac Rehabilitation Service was commissioned to provide a 12 week SEP to look at whether the CR Model of exercise and education could cater for this group of patients. This pilot has been successful in increasing pain-free walking and maximal walking by 108% and 51% respectively. Also patients reported an improvement in disease-specific quality of life on completion of the programme. These initial results show that the CR model can be used to produce successful rehabilitation for patients with PAD.

After initial diagnosis, patient with PAD have a 50% increased risk of developing other cardiovascular conditions (myocardial infarction or stroke) within the next 5 years (AACVPR). It is well-established that the CR Model provides risk reduction for developing these conditions. Therefore this pilot study highlights the potential for CR programmes to offer CAD primary prevention for people with PAD.

We have phrased this: ***Rehab for the legs and “Prehab” for the heart!***

Eddie Caldow
edward.caldow@srft.nhs.uk

Cardiovascular Rehabilitation Department, Salford Royal NHS Foundation Trust
2nd Floor, Sandringham House, Windsor Street, Salford M5 4DG

Lunchtime Meetings

Conference Room 1

13.05-13.35

ACPICR AGM

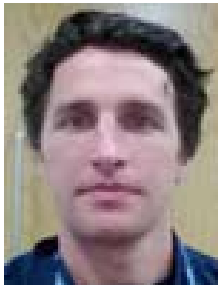
13.35-14.05

**BACPR Exercise
Instructor
Network AGM**



Dr Gordon McGregor PhD CSci

Gordon is a Clinical Exercise Physiologist and Research Fellow at University Hospital, Coventry with over 15 years experience in the field of cardiovascular disease prevention and rehabilitation. In his role as a clinical academic, he combines leading NHS clinical rehabilitation services with research into the effects of exercise training in clinical populations. His PhD investigated left ventricular remodelling with exercise training in post MI patients and current projects include exercise training and electrical muscle stimulation in end stage renal disease and chronic heart failure. He is a BASES Accredited Exercise Physiologist/Chartered Scientist, BACPR tutor and is the current Chair of the BACPR Exercise Professionals Group. Finally, he is a director of Atrium Health, a Coventry based Social Enterprise delivering NHS clinical services, maintenance exercise programmes and a wide variety of research initiatives.



Brian Begg

Brian, a Sport and Exercise Science graduate from the University of Limerick (Ireland), has worked in Cardiac Rehabilitation since 2005. He qualified as a BACPR Instructor in the same year, and has been a BASES Certified Exercise Practitioner since 2012.

Brian currently works for the Cardiac Rehabilitation team of Aneurin Bevan Health Board (South East Wales) and the Countryside Service of Caerphilly County Borough Council in an innovative partnership post. Brian sits on the BACPR Council as the elected Exercise instructor representative; he is the Chair the Exercise Instructor Network and will be chair of the BACPR Exercise Professional Group following the EPG Study day.



Charlotte Edwardson, PhD

Charlotte is a Lecturer in Physical Activity, Sedentary Behaviour and Health in the Diabetes Research Centre at the University of Leicester. Her current research work focuses on three main areas: understanding objectively measured levels and patterns of physical activity and sedentary behaviour and their relationship to health; developing and evaluating lifestyle behaviour change interventions; and testing and reviewing physical activity and sedentary behaviour self-monitoring devices. Charlotte has published in a range of peer reviewed journals in the area of physical activity, sedentary behaviour and health and has been successful in attracting research grants from prestigious funding bodies such as the Medical Research Council, National Institute for Health Research, Department of Health and the European Commission.

ABSTRACT: Physical activity monitoring using objective wearable devices: availability, validity and usability

Physical activity monitoring will be presented from two perspectives: the health professional and the patient/client themselves.

Physical activity monitoring by the health professional: Guidelines recommend that adults should take part in at least 150 minutes of moderate-to-vigorous physical activity each week in order to gain health benefits but how do we know if our patients/clients are actually achieving this? Self-reported tools to measure physical activity, such as questionnaires, are subject to recall and response bias (i.e., inaccurate memory, social desirability) and result in physical activity levels being over-estimated. In recent years however, objective activity monitors, such as accelerometers, have become available that provide time stamped measures of duration, frequency, and intensity of movement. This presentation will briefly describe research grade objective measurement tools that health professionals could employ to monitor their patients/clients physical activity levels.

Physical activity monitoring by the patient/client: Self-monitoring can be described as the systematic recording of behaviour in real time to increase awareness and assess progress towards a goal. Evidence surrounding the effectiveness of self-monitoring for physical activity behaviour change will be discussed. Consumer-based wearable electronic devices to track fitness, exercise and physical activity have become widely available in recent years and provide an individual with real-time feedback on their behaviour (e.g., step counts, distance walked, active and inactive minutes, sleep, calorie expended etc). A range of currently available devices (e.g., Fitbit, Jawbone, Garmin, Misfit) will be presented and reviewed. Members of the BACPR EPG committee will trial several self-monitoring devices prior to the study day and feedback on their experiences will be presented.



Dr Lee Ingle FESC

Dr Lee Ingle is Director of Research and Enterprise and Deputy Head of the Department of Sport, Health & Exercise Science at the University of Hull. He is an exercise scientist whose personal and collaborative research has focused on the therapeutic benefits of exercise on cardiovascular health and disease outcomes, and he is most well known for his work in patients with chronic heart failure. He has a strong interest in the impact of structured exercise training (and the manipulation of training dose) on the cardiometabolic health of patients with cardiovascular disease. The epidemiological associations between exercise training and outcome (death/hospitalisation) are of avid interest. He has published in excess of 75 peer-reviewed articles, many in leading international journals and has presented at numerous national and international conferences. Dr Ingle is also a course director and examiner for the British Association of Cardiovascular Prevention & Rehabilitation (BACPR) exercise instructor training course.

Abstract: 'HIITing' heart disease - what's the evidence?

There has been extensive recent press coverage regarding the impact of high intensity interval training (HIIT) on health outcomes in healthy individuals. There is an emerging literature which has focused on applying this novel training modality to patients with pre-existing cardiovascular disease (CVD). I will review this evidence focusing on key issues related to efficacy, safety, and adherence to HIIT in patients with CVD. The premise behind HIIT is certainly not new, having been incorporated into athletic training programmes for many decades. However, recent well-designed (although small-scale) studies have yielded positive results in patients with CVD. The current evidence-base regarding HIIT is promising, however, larger scale investigations focusing on a range of different cardiac aetiologies is warranted before HIIT can be incorporated into national guidelines.

Professor Mark Haykowsky



Dr. Haykowsky is a Professor in the Faculty of Rehabilitation Medicine at University of Alberta (U of A). He completed his Ph.D. in cardiovascular exercise physiology at U of A in 1998 followed by a postdoctoral fellowship (Heart Failure specialization) in the Division of Cardiology, Faculty of Medicine (U of A). Professor Haykowsky's research program examines: (1) the biologic mechanisms responsible for the decline in health related physical fitness across the heart failure continuum, and the role of exercise training to restore cardiovascular and skeletal muscle function; (2) the efficacy of exercise training to reverse chemotherapy and/or biological therapy mediated cardiotoxicity in women with breast cancer, and; (3) cardiac mechanics and left ventricular (LV) remodeling in athletes. Professor Haykowsky has published over 165 papers in high-impact medical journals and he has been an invited speaker at numerous national and international cardiology, cardiac rehabilitation, physiology and exercise science meetings. Dr. Haykowsky has supervised/committee member for 92 trainees during the past 16 years.

References

- ⁴ Heran BS, Chen JM, Ebrahim S, Moxham T, Oldridge N, Rees K, Thompson DR, Taylor RS. *Exercise-based cardiac rehabilitation for coronary heart disease. Cochrane Database Syst Rev. 2011;CD001800*
- ⁵ White HD, Norris RM, Brown MA, Brandt PW, Whitlock RM, Wild CJ. *Left ventricular end-systolic volume as the major determinant of survival after recovery from myocardial infarction. Circulation. 1987;76:44-51*
- ⁶ Haykowsky M, Scott J, Esch B, Schopflocher D, Myers J, Paterson I, Warburton D, Jones L, Clark AM. *A meta-analysis of the effects of exercise training on left ventricular remodeling following myocardial infarction: Start early and go longer for greatest exercise benefits on remodeling. Trials. 2011;12:92*

ABSTRACT: Anti-remodeling benefits of early exercise training post myocardial infarction Cardiac exercise rehabilitation is effective in reducing overall and cardiovascular mortality (medium to long-term studies) and hospital admission (short-term studies) in individuals with coronary heart disease⁴. Prior research has shown that the size and function of the heart (termed LV remodeling) is an important predictor of cardiac mortality post myocardial infarction (MI)⁵. A recent meta-analysis revealed that exercise training had beneficial effects on LV remodeling post MI but that the magnitude of this change was dependent on initiation and duration of the exercise intervention.⁶ For example, the greatest anti-remodeling benefits occurred when exercise programs began around 1-week after hospital discharge and lasted for 6 months. For end-systolic volume (ESV), a strong predictor of mortality post-MI⁵, each one-week delay in initiating exercise training would require an additional month of training to obtain a comparable reduction in this outcome⁵. Currently there is no consensus as to when exercise training should be in clinically stable post-MI patients. Accordingly, the aim of this session will be to highlight the benefits and postulated mechanisms whereby early exercise training post MI attenuates LV remodeling in clinically stable patients. In addition, the role that exercise intensity may play in attenuating post MI remodeling will be discussed.

Poster Presentations

Please take time to visit this year's poster presentations

F1

What are the perceptions of staff regarding the inclusion of heart failure patients into community cardiac rehabilitation?

S. Steiner Gardner Sheffield teaching Hospitals and Sheffield Hallam University

F2

Alternative approaches to phase 3 exercise in cardiac rehabilitation: water based exercise.

L Rimmell Countess of Chester Hospital NHS Foundation Trust

F3

The effects of inspiratory muscle training in phase IV cardiac rehabilitation (CR) patients.

R., Sullivan, J., Dickinson, S., Meadows School of Sport & Exercise Sciences, University of Kent.

F4

Helping interpretation and improving patient understanding of incremental shuttle-walking test performance in pre-rehabilitation.

Cardoso, FMF¹, Almodhy, M.¹, Pepera, G.² and Sandercock, GRH.¹

¹Centre for Sports and Exercise Science, School of Biological Sciences, University of Essex, Colchester, United Kingdom

²Technological Educational Institute (TEI) of Sterea Hellas, Greece.

*Granted by FCT, Portugal.

F5

Integrating patients with peripheral vascular disease into cardiovascular rehabilitation.

Hart O, Evans Z, Faulkner S, Roose A, Knowsley Community Cardiovascular Service, Liverpool Heart and Chest NHS Foundation Trust

F6

Cancer rehabilitation for cancer patients from liverpool heart and chest hospital – the results.

Perry A, Evans Z, Faulkner S, Roose A, Gossage E Knowsley Community Cardiovascular Service, Liverpool Heart and Chest NHS Foundation Trust

Poster Presentations

F7

Access to clinical supervision for exercise physiologists; a working model in the North West.

Evans Z, McIntosh S, Countess of Chester NHS Foundation Trust, Cardiac Rehabilitation Service
Knowsley Community Cardiovascular Service, Liverpool Heart and Chest NHS Foundation Trust

F8

Developing a supervised exercise programme for patients with peripheral vascular disease : rehab for the legs – “ prehab” for the heart.

E Caldow; S Birkett; R Taylor; K Cook. Salford Royal NHS Foundation Trust - Cardiovascular Rehabilitation Service

F9

Exercise intervention as part of the pre-bariatric surgery pathway and its impact on cardiovascular disease.

Gilchrest, J. Countess of Chester Hospital NHS Foundation Trust

F10

Reverse left ventricular remodelling – effect of cardiac rehabilitation exercise training in myocardial infarction patients with preserved ejection fraction.

G. McGregor^{1,2}, D. Gaze³, D. Oxborough⁴, J. O’Driscoll⁵, and R. Shave¹

¹ Cardiff Metropolitan University, Cardiff, UK.

² University Hospital, Coventry, UK.

³ St George’s Hospital, London, UK.

⁴ Liverpool John Moore’s University, Liverpool, UK,

⁵ Canterbury Christchurch University, Canterbury, UK.

F11

High intensity interval training (HIIT) versus moderate intensity interval training (standard care) within cardiac rehabilitation.

Welsh, A-C., Roose, A., Matata, B., Mills, J., Midgley, A.W. Knowsley Community Cardiovascular Service, Liverpool Heart and Chest NHS Foundation Trust and Department of Sport & Physical Activity, Edge Hill University,

F12

Does cardiac rehabilitation (CR) improve functional capacity of patients? An evaluation of the 6 minute walk test (6mwt).

N. Wren, K. Dietz, S. Meadows School of Sport & Exercise Sciences, University of Kent.



British Cardiovascular Society

Annual Conference

Manchester Central, 8th – 10th June 2015

British Association for Nursing in Cardiovascular Care
British Association for Cardiovascular Prevention and Rehabilitation
British Society of Heart Failure

Joint Affiliates Day

10th June 2015

Delivering the best in cardiovascular care

Session 1 8:30 – 10:00

Current Challenges in Prevention

Prevention Headlines – Robin Ireland

National Health Check Update – Katherine Thompson

CVD prevention and social determinants of health – Professor Peter Goldblatt

Oncology and CHD Screening – Dr Alexander Lyon

Session 2 10.45 – 12.15

MDT Heart Failure Session in Main Auditorium

Session 3 13:45 – 15:15

Congenital Heart Disease and Inherited Cardiac Diseases

Adult Congenital Heart Disease – Dr Niki Walker

Shared care service model for Adult Congenital Heart patients – Mel Finch

New HCM Guidelines – Dr Constantinos O'Mahoney

Psychosocial Support / Inherited Cardiac Conditions Clinic – Tootie Bueser and Jan Oliver

Session 4 15:45 – 16.50 *With the Cardiovascular Care Partnership UK*

Self Management

From the established to the novel: Self-management programmes – Dr. Carolyn Deighan

Commissioning Self Management Programmes – Dr Dan Bunstone

Promoting Self-management – Nick Hartshorne-Evans



Notes

Notes

BACPR Annual Conference

Tomorrow's World in Cardiovascular Prevention and Rehabilitation

Thursday 1st and Friday 2nd October 2015
The Palace Hotel, Manchester



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Your 2015 conference will include:

- **Early rehabilitation...**
Dr Mark Haykowsky – *'The Earlier the Better: Early Exercise Rehabilitation to Improve Functional Outcomes and Re-hospitalisation in Heart Failure'*
- **Driving forward secondary prevention...**
Prof Robert West – *'Hot Topics in Smoking Cessation'*
Dr Handrean Soran – *'Managing Hyperlipidaemia: Past, Present and Future'*
Prof David Wood – *'25 by 2025 – What Does it Mean for You? The Global Agenda for Secondary Prevention'*
- **Patients' perceptions and self-management...**
Dr Molly Byrne – *'I'm not exactly sure I'm the person you should be talking to about this ...'* *Sexual Issues in Cardiovascular Rehabilitation*
Susan Watt – *'Self-management of Coronary Heart Disease in Angina Patients after Percutaneous Coronary Intervention'*
- **What we've achieved...**
Prof Rod Taylor – *'What are the Latest Cochrane Reviews Saying About Rehab?'*
- **Parallel Sessions:** BACPR nurses forum / psychology, and BACPR EPG / dietetics
- **New Investigator in Scientific Research Award**
- **Moderated Poster Sessions**
- **Gala Dinner**

And much much more!



Call for Abstracts 2015 Annual Conference

Abstracts are invited for submission no later than Friday 5th June 2015 for oral or poster presentation. We welcome all abstracts giving details of clinical practice, projects, and research within cardiovascular prevention and rehabilitation. Submissions showcasing examples of 'Tomorrow's World' within the field will be particularly welcome.

New for 2015! An additional abstract submission category: 'New Investigator in Scientific Research'. This category is open to novice researchers submitting work which shows clear evidence of originality, of sound scientific background and content.

Abstracts should:

- Be submitted by email to education@bacpr.com. Please send as a .doc attachment (word format)
- Be no more than 250 words in length, 12 point size Arial font
- Have a title in capital letters, and the organisation involved
- The name(s) of the author(s) must be preceded by initials only
- Omit titles and degrees and underline only the main presenter
- Add full postal address and email address of the main presenter at the end

Please indicate your preferred form of presentation; Oral or Poster. Please also indicate whether the abstract is intended for submission within the 'New Investigator in Scientific Research' category. The best abstracts submitted for oral presentation will be invited to present within the main programme, or as a moderated poster. Prizes will be awarded to: best oral abstract, best moderated poster, and New Investigator in Scientific Research. **If you have not received an email confirmation of receipt from BACPR within 10 working days of submission, please re-submit abstract or call 01252 854510.** Conference registration is mandatory for any format of presentation.



“Promoting excellence in cardiovascular disease prevention and rehabilitation”

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