



POSTGRADUATE CERTIFICATE IN CARDIOVASCULAR REHABILITATION

Option to proceed to the MSc in Cardiovascular Rehabilitation at the University of Chester, UK

A six month, part-time professional development programme taught at the *Asian Heart Institute*, Mumbai

Further Information:

Professor Kevin Sykes
Programme Director
Centre for Exercise and Nutrition Science
University of Chester
Parkgate Road
Chester CH1 4BJ

email: k.sykes@chester.ac.uk
www.chester.ac.uk

Further admission enquiry and application forms contact:

Ranvir Puri
Course Co-ordinator
mumbai@combineco.com
Tel: 9819711622 09818240808

Next course commences September 2009. Applications being accepted now!



Course not recognised by AICTE, Central or any State Government of India.



Awarded by the University of Chester, England
Accredited by the Royal College of Physicians, London

The University of Chester is committed to the active promotion of equality of opportunity. Applications are particularly welcome from those groups currently under-represented in higher education. For a copy of our diversity and equality policy in admissions, please contact us at enquiries@chester.ac.uk



This document is available in larger formats upon request. Please email enquiries@chester.ac.uk for further details.



University of
Chester

A Professional Course in Cardiovascular Rehabilitation for Indian Professionals

The Healthcare industry is one of the fastest growing sectors in India with an increasing need for professionals with specialised training and knowledge of international best practices

- No internationally recognised training route to becoming a cardiovascular rehabilitation (CVR) practitioner in India.
- Increasing need for Indian professionals in CVR in hospitals, clinics, health centres. Over 60 million cardiac patients in India expected to increase to 100 million by 2010.
- Training professionals to target the single largest cause of deaths in the country – Heart Disease.
- Course provides knowledge, research and practical experience of the latest methods and techniques in Cardiovascular Rehabilitation as per established international standards.
- On completion of this course students will be able to enhance their careers in hospitals, clinics and independent practice as skilled professionals and consultants to the Health Care industry.
- Taught by experienced professionals from one of the UK's leading Universities and hospitals at one of India's leading heart institutes, Asian Heart Institute.
- Students obtain the award of PG Cert in Cardiovascular Rehabilitation from the University of Chester, England.

About



The University of Chester is one of the oldest higher education institutions in the United Kingdom, founded in 1839, and has a well deserved reputation for the quality of its education and the high standards of its student care and support. The Centre for Exercise and Nutrition Science (CENS) is the University's international postgraduate specialist centre with over 350 students currently registered for its MSc degrees in Cardiovascular Rehabilitation, Exercise and Nutrition Science, and Weight Management. CENS delivers postgraduate distance learning programmes in Hong Kong, Singapore and Ireland and has over 400 past MSc graduates working worldwide. All courses are accredited by the Royal College of Physicians, London.



The Asian Heart Institute is a world-class heart hospital located in Bandra Kurla Complex, Mumbai. It is the largest volume cardiac surgery centre in Western India. The Asian Heart Institute is accredited by the Joint Commission International (JCI) of USA and is the only hospital outside of the USA to be accredited by JCI, ISO, and NIAHO. The Department of Preventive Cardiology and Cardiac Rehabilitation has one of the finest cardiac rehabilitation facilities in the country, with a city centre base at the Qi Lifecare Health Club.

The course will be delivered by a team of academics and leading practitioners from the University of Chester and the Asian Heart Institute

Key people in the team include:

Professor Kevin Sykes

MSc, PhD, DPE, DASPE, CertEd, MIBiol, CBiol, FBAPT, MHEA
Programme Leader
Professor of Occupational Health and Fitness
2007 Scientific Chair British Association of Cardiac Rehabilitation
CENS Director

Professor Paul Edwards

MA, MB (Cantab), BChir (Cantab), FRCS (London), FRCS (Edinburgh)
General and Vascular Surgeon, Countess of Chester Hospital
CENS Visiting Professor

Dr Elved Roberts

MB, ChB (Liverpool), MD, MRCP
Consultant International Cardiologist, Norfolk and Norwich University Hospital
CENS Visiting Research Fellow

Dr John Buckley

BPE, MSc, PhD, BASES Accred (Ex.Physiol Res & Pract), REP (Clin)
CENS Senior Lecturer
Consultant in Cardiac Rehabilitation, Countess of Chester Hospital
2008 BACR President-elect

Dr Aashish Contractor

MBBS, MEd (USA)
Head of Dept: Preventive Cardiology and Rehabilitation,
Asian Heart Institute, Mumbai
Certification Director for American College of Sports Medicine (ACSM)

Dr Kirti Nigalve

MBBS, MScCVR (UK)
Local Tutor
Alumnus of University of Chester



Far left: Professor Kevin Sykes, Professor Paul Edwards & Dr Elved Roberts.

Left: Professor Kevin Sykes inaugurating the Hirandanani Hospital CR Centre, Feb 2008.

The PG Certificate course requires the study of three eight week modules:

- 1 - Cardiovascular Disease, Treatment and Rehabilitation
- 2 - Functional Anatomy and Physiology of the Cardiovascular System
- 3 - Exercise Testing, Prescription and Programming in Cardiovascular Rehabilitation

Each module involves:

- 25 hours intensive course (Friday evening, Saturday, Sunday, Monday evening) in contact with Chester (UK)/AHI faculty
- Date for Intensive Courses
- Module 1: 11th - 14th September 2009**
- Module 2: 20th - 23rd November 2009**
- Module 3: 5th - 8th January 2010**
- 15 hours practical activities, work experience, support tutorials, etc (3 x alternate Saturdays mid-module) at AHI Mumbai with AHI Faculty
- 160 hours directed self-study (preparation of a 5000-word written assignment)

Students may optionally take one or more modules instead of the three module PG Cert.

Assessment

Each module is assessed by a 5,000-word written assignment. There are no formal examinations.

Award

The Postgraduate Certificate in Cardiovascular Rehabilitation is awarded by the University of Chester and accredited by the Royal College of Physicians (London) to students who successfully complete the three modules of study.

PROGRAMME STRUCTURE Module 1

Cardiovascular Disease, Treatment and Rehabilitation

Friday (6.00-9.30pm)

- Process of rehab (biomedical v psychosocial/patient centred approaches, socio-cultural influences)
- Phases of rehab (rationale, content, benefits and drawbacks)
- Epidemiological influences and risk factors for CVD

Saturday (9.00am-6.00pm)

- Pathophysiological influences and processes of CVD
- Risk factors, development and progression of atherosclerosis
- Procedures for diagnosing disease
- Diagnosis decision making
- Treatment selection choices

Sunday (9.00am-6.00pm)

- Medications taken for CVD
- Metabolic syndromes and endocrinology related to diabetes, obesity, hypertension and ethnicity

Monday (6.00-9.30pm)

- Strength and weaknesses of evidence-base in Cardiovascular Rehab
- Biomedical v Rehabilitative/Behavioural, quality of life issues
- Beyond the statistics of morbidity and mortality

Right: Dr. John Buckley
(left of shot).



PROGRAMME STRUCTURE Module 2

Functional Anatomy and Physiology of the Cardiovascular System

Friday (6.00-9.30pm)

- Review of general mechanisms and structures of the CV system that control circulation
- Integration of mechanical/histological, electrophysiological, neurohumoral factors
- Cardiac metabolism, similarities and differences with skeletal muscle

Saturday (9.00am-6.00pm)

- Mechanical, electrophysiological and neurohumoral factors controlling the cardiac cycle
- Myocardial and valvular disease, Arrhythmia
- Exercise physiology changes in heart rate, stroke-volume, ejection fraction blood pressure, MVO₂ (rate-pressure product), effects of posture on CV function during exertion
- Consideration of electro-physiological, circulatory factors, similarities and differences between the onset of acute exertion and cessation after prolonged (>10mins) exertion

Sunday (9.00am-6.00pm)

- Laboratory practice of exercise physiology methods and skills
- Circulatory, arterial- histological, cardiac (electrical-mechanical) adaptations with chronic exercise training
- Fick Principle; central peripheral adaptations in patients with CV diseases

Monday (6.00-9.30pm)

- Reduction in exertion-related risk of a CV event associated with regular exercise training
- Reduction in morbidity and mortality risk associated with regular exercise and increased aerobic fitness

PROGRAMME STRUCTURE
Module 3

Exercise Testing, Prescription and Programming in Cardiovascular Rehabilitation

Friday (6.00-9.30pm)

- Role of exercise in health and prevention of CV disease
- Pre-exercise health screening and risk stratification
- Overview of types of exercise testing procedures

Saturday (9.00am-6.00pm)

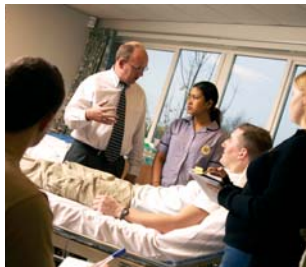
- Lab based assessments (cardio-pulmonary exercise testing)
- Integrated analysis of exercise ECG and respiratory responses, alluding to risk stratification and exercise prescription
- Functional assessments (step-tests, walk tests and cycle ergometer tests)

Sunday (9.00am-6.00pm)

- Designing exercise programmes and guiding physical activity from test results safety and effectiveness
- Effective use of heart rate and RPE.
- Exercise programming with exercise equipment (aerobic and strength training)

Monday (6.00-9.30pm)

- Exercise programming with minimal equipment
- Similarities and differences of programmes for individuals with MI, CABG, PCI, CHF



Eligibility Criteria

Applications are invited from qualified doctors, physiotherapists, occupational therapists, senior nurses and other related health professionals with relevant qualifications and work experience.

Application Procedure and Enquiries

Application forms are available from The Combine Company. Completed application forms and support documents should be submitted to:



The Combine Company
Suite 2, A-07, Mayfair Building, First Floor
Opposite Siddhart Hotel, S.V. Road
Bandra (W), Mumbai 400 050
email: mumbai@combineco.com
Tel: 9819711622, 09818240808
www.combineco.com

Supporting documents should include a résumé, true certified copies of all education documents (Class X, Class XII, Bachelors Degree certificates), a statement of purpose and two letters of reference. Applicants will be informed of the outcome of their application after all documents are submitted.

Fees

GBP 1,500 for the six-month (3-module) Postgraduate Certificate in Cardiovascular Rehabilitation or GBP 500 per module as independent conference modules.

Fees must be paid in FULL via a Bank Draft in GBP payable to "The University of Chester" and given to The Combine Company.

Fees include

- Tuition
- Course Handbook and Core Texts
- Resource Packs for taught modules
- AHI teaching and learning resources
- Experience with patients in AHI Cardiac Rehabilitation Centres
- Local tutor support
- Assessment and formative feedback
- Electronic online access to journals and ebooks
- External examination
- Postgraduate Certificate from University of Chester

Onward Progression

On successful completion of the Postgraduate Certificate there is the option to build upon this qualification by a period of study in Chester for the award of PG Diploma/MSc in Cardiovascular Rehabilitation.