



ROYAL COLLEGE OF
PHYSICIANS OF IRELAND

MASTERCLASS

Royal College of Physicians of Ireland
No. 6 Kildare St, Dublin 2

4.00 pm Wednesday, 7 May 2008

*Masterclass Series:
Treating the acutely ill
patient* – Update and advances
in management of common medical
conditions presenting on call

Part V:
Cardiology Session



Welcome

Dr John Donohoe
President, RCPI

Dr Diarmuid O'Shea
Masterclass Series Convenor, RCPI



Dear Delegates,

Welcome to the fifth session of the RCPI Masterclass Series on Treating the Acutely Ill Patient. Our aim with this series is to keep doctors participating in treatment of patients admitted acutely unwell to hospital up-to-date with evolving medical practice outside their own core subspecialty area. The series will cover recent advances in the management of common medical conditions. It will also identify interventions that may assist in preventing hospital admission and help facilitate appropriate discharge early.

This session targets common themes in Cardiology. We would like to thank the co-chairs of the session, Dr Kieran Daly and Dr Peter Crean, for their contribution to the programme and the series.

The next meeting in the series will address areas in Nephrology.

We are all responsible for improving and maintaining standards within our profession. Your attendance here today shows your commitment to this and to continued excellence of patient care. The College will continue to develop innovative approaches – such as attendance at meetings such as Masterclasses via live and recorded webcasts – to facilitate your continuing medical education requirements. This entire series qualifies for 18 CME credits.

If you have suggestions for future topics in the series include them on the assessment form in your meeting pack. Alternatively, email your suggestions to us at joannaholly@rcpi.ie.

We hope you enjoy the meeting.

A handwritten signature in black ink, appearing to read 'John Donohoe'.

Dr John Donohoe
President
Royal College of Physicians of Ireland

A handwritten signature in black ink, appearing to read 'Diarmuid O'Shea'.

Dr Diarmuid O'Shea
Masterclass Series Convenor
Royal College of Physicians of Ireland

TIME	TITLE	SPEAKER	CHAIR
15:55	Welcome by Masterclass Series Convenor, Dr Diarmuid O'Shea		
16:00 – 16:25	Assessment of patients presenting with chest pain of possible cardiac origin	Dr Geraldine McMahon St James's Hospital, Dublin	Dr Kieran Daly University College Hospital Galway
16:25 – 16:30	Discussion		
16:30 – 17:55	How helpful are Troponins and BNP in an acute medical setting?	Dr Niall Mahon Mater Misericordiae Hospital, Dublin	
17:55 – 17:00	Discussion		
17:00 – 17:25	Acute heart failure	Dr Paul Keelan Our Lady of Lourdes Hospital, Drogheda	
17:25 – 17:30	Discussion		
17:30 – 17:45	Refreshments		
17:45 – 18:10	Blackouts in A&E	Dr Sean Fleming Portlaoise County Hospital	Dr Peter Crean St James's Hospital, Dublin
18:10 – 18:15	Discussion		
18:15 – 18:40	Challenging arrhythmias on call	Dr Santhosh David Letterkenny General Hospital	
18:40 – 18:45	Discussion		
18:45 – 19:10	ACS/Anti-thrombotic therapy in A&E	Dr Carl Vaughan Mercy University Hospital Cork	
19:10 – 19:15	Discussion		
19:15 – 19:30	Panel Discussion		

The meeting will be available as a recorded webcast via the RCPI website. If you wish to receive information on how to subscribe to the service, please contact:

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This meeting is approved for 3 CME credits by the Royal College of Physicians of Ireland

Dr Kieran Daly
University College Hospital Galway



Dr Daly will chair Session 1

Kieran Daly is Consultant Cardiologist at University College Hospital, Galway and Senior Lecturer in Medicine at National University of Ireland Galway. He graduated from University College Dublin in 1972 and completed his postgraduate training at the Mater Misericordiae Hospital, Dublin. He has held

appointments at Hammersmith Hospital, London, Great Ormond Street Children's Hospital, London, and Kings College Hospital, London. His research interests include Instent Restenosis and Ischaemic Heart Disease. He currently serves as a Research and Medical Director of *Croí*, the West of Ireland Cardiology Foundation.

Dr Peter Crean
St James's Hospital, Dublin



Dr Crean will chair Session 2

Peter A Crean is Consultant Cardiologist at St James's Hospital and Blackrock Clinic. His main interests are in Ischaemic Heart Disease, particularly in interventional cardiology. Dr Crean has taken part in a large number of international clinical studies and directs a clinical cardiology research unit in St James's Hospital.

run by the Cardiology Dept in TCD. He is one of the organisers of the annual live Cardiac Interventional Meeting in St James's Hospital, which demonstrates 'live' interventional cases and organises satellite links with Columbia University in New York and Cardiology Centre in Toulouse, France.

He is a lecturer in Trinity College Dublin, teaching both the under-graduate and post-graduate students. The post-graduate students complete an M.Sc in Cardiology

Dr Crean is the past President of the Irish Cardiac Society and has also recently finished a term as the Chairman of the Irish Training Board for Cardiology.

Session 1

16.00 — 16.25

Assessment of patients presenting with chest pain of possible cardiac origin

Dr Geraldine McMahon
St James's Hospital, Dublin



Biographical Sketch

Geraldine McMahon is Consultant in Emergency Medicine in St James's Hospital and Senior Lecturer in the Faculty of Health Sciences, Trinity College Dublin.

Dr McMahon received her medical degree from University College Dublin. She undertook her post graduate training in Dublin, Edinburgh and Manchester, before returning to Ireland in 2000 to take up her current post. In collaboration with Dr Peter Crean, Consultant Cardiologist in St James's Hospital, she developed the first designated Chest Pain Assessment Unit in Ireland in 2001. Dr McMahon has recently completed her PhD in Trinity College Dublin, evaluating the Effects of Acute Traumatic Brain Injury on Cardiovascular Homeostatic Mechanisms.

Overview of Presentation

Premature death from coronary artery disease is the leading cause of death in Ireland. Chest pain is the second most common major complaint seen in the Emergency Department. International figures show that between 2-6% of these patients are inappropriately discharged. This is associated with five-fold increase in mortality (26%).

Few diagnostic decisions in medicine have been more heavily researched than the approach to patients with acute chest pain.

Despite the advances in both diagnosing and treating patients presenting with this symptom-complex, cases of missed acute coronary syndrome continue to cause substantial morbidity and mortality. This talk examines clinical decision making about the diagnosis and triage of patients presenting with acute chest pain or with symptoms consistent with possible cardiac ischaemia. A standardised approach to the assessment of these patients is essential given the adverse consequences of missing this potentially life threatening condition.

16.30 — 17.55

How helpful are Troponins and BNP in an acute medical setting?

Dr Niall Mahon
Mater Misericordiae Hospital, Dublin



Biographical Sketch

Niall Mahon, a graduate of NUI Galway, undertook training in cardiology at the Mater Misericordiae University Hospital, St George's Hospital, London, UK and the Cleveland Clinic, Cleveland, Ohio, USA before taking up a post as Consultant Cardiologist at the Mater in 2002. His clinical and research interests include coronary intervention, management of advanced heart failure including device therapy, and diagnosis and management of heritable cardiac diseases.

Overview of Presentation

Blood tests of the title, although superficially similar (assays to aid diagnosis in acutely presenting cardiac conditions), serves fundamentally different purposes. In a typical example, the former acts as a 'smoking gun' in a patient who may appear perfectly well, with symptoms that have resolved and a normal physical examination and electrocardiogram, yet harbours an unstable coronary plaque which, unless diagnosed and treated, may prove fatal. Its utility both for stratifying risk and directing therapy is well established. The practicalities of requesting the assay as well as limitations in sensitivity and specificity need to be understood. Mechanisms of 'false positivity' are discussed and a distinction drawn between transient ischaemia caused by an unstable plaque, and that caused by a stable fixed obstruction plus transiently increased myocardial oxygen demand (such as sepsis or fast atrial fibrillation).

In the emergency department, BNP is not the troponin of heart failure. Both the clinical question (usually distinction between respiratory dyspnoea and congestive heart failure) and the stakes are different. Its utility in the acute setting, particularly its influence on ultimate outcomes, is less clearly established. Its specificity is modest, although its negative predictive accuracy is good.

Since Bayesian principles influence their predictive accuracies, troponin and BNP should only be ordered in the appropriate clinical context. Given the high prevalence of coronary disease and heart failure, both of these assays have significant cost implications; but a greater potential cost, which must be avoided, would be the loss of clinical diagnostic skills engendered by an unwarranted faith in the blood test. Neither assay is a substitute for sound clinical judgement.

Session 1

17.00 — 17.25

Acute heart failure

Dr Paul Keelan
Our Lady of Lourdes Hospital, Drogheda



Biographical Sketch

Paul Keelan graduated from UCD Medical School in 1993. He completed his Cardiology training between 1996-2008, spending time at the Mater Misericordiae University Hospital, St. James's Hospital and St. Vincent's University Hospital, in addition to a 3-year Fellowship in Interventional Cardiology at the May Clinic in Minnesota, USA. He has worked as Consultant Cardiologist in Our Lady of Lourdes Hospital, Drogheda, and the Mater Misericordiae University Hospital, Dublin, since 2004.

His areas of interest include Acute Coronary Syndromes, Heart Failure and Coronary Intervention.

Overview of Presentation

Acute heart failure is a clinical syndrome that results from significant impairment of cardiac pump function of sudden onset. It is a medical emergency. Although, it may result from a number of different causes, acute myocardial ischaemia is the most common insult. In this setting, heart failure may result from profound left ventricular dysfunction or, less likely, a mechanical complication of myocardial infarction. The key principles in the management of acute heart failure include a rapid, comprehensive assessment for the underlying cause and, simultaneously, rapid institution of tailored therapies to reverse the cause and correct any associated haemodynamic perturbations.

Repeated assessment of the patient to evaluate clinical progress is imperative. A failure to improve with initial therapies or frank deterioration mandates more intensive treatment strategies. This is also required if the patient presents in cardiogenic shock, which is a distinct clinical syndrome characterised by circulatory failure. There is a high mortality associated with cardiogenic shock and in the setting of acute myocardial ischaemia, immediate revascularization offers the patient the best chance of survival. Even when this is accomplished, however, the mortality rate approaches 50%.

Session 1

17.45 — 18.10

Blackouts in A&E

Dr Sean Fleming
Portlaoise County Hospital



Biographical Sketch

Sean Fleming is Consultant Cardiologist at the Midlands Regional Hospital Portlaoise.

Overview of Presentation

Dr Fleming's presentation will focus on the initial clinical evaluation of the patient with transient loss of consciousness and discuss strategies to identify high risk patients.

Session 2

18.15 — 18.40

Challenging arrhythmias on call

Dr Santhosh David
Letterkenny General Hospital



Biographical Sketch

After graduating from India, Santhosh David completed his Cardiology training at Beaumont Hospital, Dublin, and Electrophysiology training in Brisbane, Australia. He worked as Consultant Cardiologist in Australia before taking up his current Consultant Cardiologist position at Letterkenny General Hospital.

His primary interests are Cardiac Arrhythmias and Device Therapy for Heart Failure.

Overview of Presentation

Dr. David will discuss challenging arrhythmias on call.

Session 2

18.45 — 19.05

ACS/Anti-thrombotic therapy in A&E

Dr Carl Vaughan
Mercy University Hospital Cork



Biographical Sketch

Carl Vaughan is Consultant Cardiologist at the Mercy University Hospital/ Cork University Hospital in Cork. He earned his medical degree from University College Cork in 1989 and did his early medical training in Cork. He then began training in Cardiology in Cork and pursued an MD degree at University College Cork in 1994 before moving for further training to Cornell Medical Centre in New York in 1996. There he pursued fellowship training in Cardiology and participated in research on the molecular genetic basis of cardiovascular disease.

He joined the Faculty at Cornell Medical Centre in 2001 and returned to Cork in 2004. Dr Vaughan has published widely on many aspects of cardiovascular disease including studies on the molecular genetic basis of inherited heart disease and dyslipidaemia.

Overview of Presentation

Dr Vaughan will discuss ACS/ Antithrombotic Therapy in A&E, including approaching chest pain in the A&E and the role of platelets in Atherothrombosis.

UPCOMING SESSIONS in the *RCPI Masterclass Series: Treating the Acutely Ill Patient*

Part VI: Nephrology Session June 4, 2008 4.00 – 7:30 pm