



ROYAL COLLEGE OF
PHYSICIANS OF IRELAND

MASTERCLASS

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

4.00 pm Wednesday, 4 June 2008

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

**Part VI:
Nephrology Session**



Welcome

Dr John Donohoe
President, RCPI

Dr Diarmuid O'Shea
Masterclass Series Convenor, RCPI



Dear Delegates,

Welcome to the last session of the 2007/2008 RCPI Masterclass Series on Treating the Acutely Ill Patient.

Our aim with this series was 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 covered recent advances in the management of common medical conditions. It also identified interventions that may assist in preventing hospital admission and help facilitate appropriate discharge early.

Today's session targets common themes in Nephrology. We would like to thank the co-chairs of the session, Dr David Lappin and Dr Peter Conlon, for their contribution to the programme and the series.

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 to facilitate your continuing medical education requirements and will launch the 2008/2009 RCPI Masterclass Series on Treating the Acutely Ill in November 2008.

The schedule for the 2008/2009 RCPI Masterclass Series: Treating the Acutely Ill Patient is as follows — 4.00 p.m. on November 5, December 3, February 4, March 4, April 1, May 6 and June 3. Finalised programmes will be made available on the RCPI website at www.rcpi.ie in June 2008.

We hope you enjoy the meeting, and we look forward to meeting you again during the next series of meetings.

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 – 16.30	The 50-year old presenting with acute renal failure – pitfalls and management	Dr Kieran Hannan Cavan General Hospital	Dr David Lappin Merlin Park University Hospital, Galway
16.30 – 16.40	<i>Discussion</i>		
16.40 – 17.10	Recognising and managing chronic kidney disease in the aging population	Dr Liam Casserly Mid-Western Regional Hospital Limerick	
17.10 – 17.20	<i>Discussion</i>		
17.20 – 17.30	Update on recognising and treating hypertensive emergencies	Dr Austin Stack Letterkenny General Hospital	
17.30 – 17.45	Refreshments		
17.45 – 18.15	Managing new onset nephrotic syndrome	Dr Joe Eustace Cork University Hospital	Dr Peter Conlon Beaumont Hospital, Dublin
18.15 – 18.25	<i>Discussion</i>		
18.25 – 19.00	Hyponatraemia on call	Dr Denise Sadlier Mater Misericordiae University Hospital, Dublin	
19.00 – 19.10	<i>Discussion</i>		
19.10 – 19.20	Update on the unwell transplant patient	Dr Colm Magee Beaumont Hospital, Dublin	
19.20 – 19.30	<i>Panel Discussion</i>		

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 David Lappin
Merlin Park University Hospital, Galway



Dr Lappin will chair Session 1

David Lappin is Consultant Nephrologist at Merlin Park University Hospital, Galway. He qualified from the Royal College of Surgeons of Ireland in 1991 and completed his Specialist Registrar training in Nephrology in the United Kingdom. He obtained his PhD in 2002 while at Mater Misericordiae Hospital.

His primary research interest is in diabetic nephropathy.

Dr Peter Conlon
Beaumont Hospital, Dublin



Dr Conlon will chair Session 2

Peter Conlon is Consultant Nephrologist/ Renal Transplant Physician. His main attachment is to Beaumont Hospital's national renal transplant unit. Dr Conlon is a graduate of the Royal College of Surgeons in Ireland. After his initial training in Nephrology in Dublin he undertook a renal fellowship at Duke University Medical Centre, North Carolina USA, where he subsequently became an Assistant Professor of Nephrology and Director of the renal transplant unit and the Durham dialysis unit

Dr Conlon maintains an active research interest in the areas of renal genetics, renal transplant outcome and renal vascular disease. Dr Conlon has authored more than 90 research articles, book chapters and textbooks on all aspects of clinical nephrology.

Session 1

16.00 – 16.30

The 50-year old presenting with acute renal failure – pitfalls and management

Dr Kieran Hannan
Cavan General Hospital



Biographical Sketch

Kieran Hannan qualified from University College Hospital Galway in 1993 and subsequently completed the Western Pre Membership Training Scheme rotating between UCHG and Merlin Park Hospitals in Galway. His interest in Nephrology took off while doing a six month rotation in Nephrology in Merlin Park. After passing the Membership Examination he took up a position as a Nephrology Registrar in Beaumont Hospital, Dublin with Dr John Donohoe.

He spent a total of three years in Beaumont Hospital, also working with Professor Peter Conlon, gaining exposure to all aspects of Nephrology and Transplantation. He subsequently moved to the Mater Hospital / UCD as a Special Lecturer in Medicine with the Department of Medicine & Therapeutics with Professor Hugh Brady. Dr Hannan's main research was in cell biology, acute renal failure and ischaemia reperfusion injury. In 2001 he moved to London to finish his training in Nephrology and GIM, working in the Middlesex Hospital, University College London Hospital and St Mary's before being appointed as a Nephrologist /Physician in Cavan General Hospital and Beaumont Hospital in 2005.

Overview of Presentation

The presentation will address the pitfalls and management of acute renal failure.

16.40 – 17.10

Recognising and managing chronic kidney disease in the aging population

Dr Liam Casserly
Mid-Western Regional Hospital Limerick



Biographical Sketch

Liam Casserly qualified from National University of Ireland, Galway and interned at University College Hospital Galway. After completing an SHO scheme at the Mater Misericordiae University Hospital he travelled to Boston, Massachusetts where he spent the next ten years at Boston University. After completing residency he was appointed Chief Resident at the Department of Medicine. Subsequently, he completed his fellowship in Nephrology as well as an MSc in Epidemiology at the Boston University School of Public Health.

Research during these years, and as a staff Nephrologist at Boston University, centered on epidemiologic outcomes in renal disease and cardiovascular disease in End-Stage Kidney Disease. He has been working in Limerick as Consultant Nephrologist/General Physician since 2004. Areas of clinical interest include primary amyloidosis, systemic diseases affecting the kidney, End-Stage Kidney Failure and genetics of kidney diseases. He recently chaired the group which developed guidelines for the management of chronic kidney disease in primary care.

Overview of Presentation

The presentation deals with the recognition, classification, routine assessment and routine management of patients with chronic kidney disease.

Session 1

17.20 – 17.30

Update on recognising and treating hypertensive emergencies

Dr Austin Stack
Letterkenny General Hospital



Biographical Sketch

Austin Stack is Consultant Nephrologist at Letterkenny and Sligo General Hospitals and holds an appointment as Associate Professor of Medicine at University of Texas-Houston Medical School. He received his medical degree from the National University of Ireland in 1991 at University College Dublin. After internship, medical residency and early nephrology training in Ireland, he pursued fellowship training (1996-1999) in Nephrology and Transplantation in the United States at the University of Michigan. He was later appointed Lecturer in Medicine, during which time he acquired expertise in health care outcomes and worked at the U.S Renal Data Registry from 1999-2001. He later was recruited to University of Texas Medical School at Houston as Assistant Professor in Medicine to direct the Clinical Outcomes Centre in Nephrology (2001-2005).

He returned to Ireland in 2005 as Consultant Nephrologist at Letterkenny General Hospital/Sligo General Hospitals and was appointed Associate Professor in Medicine at University of Texas in 2007. He has a keen interest in the development of undergraduate and post graduate medical education programs. He has published widely in the areas of chronic kidney disease epidemiology and healthcare outcomes with specific expertise in dialysis outcomes. He is a Trainer and Examiner for the Royal College of Physicians in Ireland (RCPI), participates in the GIM Specialist Registrar Program and is active in clinical research programs both in Ireland and the U.S. He has served on numerous national taskforces and review committees and sits on the scientific review board of the National Institutes of Health (Epidemiology section) and American Heart Association (AHA) and American Society of Nephrology (ASN) Research Review Committees.

Overview of Presentation

Despite advances in chronic hypertension management, hypertensive emergencies and urgencies remain serious complications. This presentation addresses current clinical concepts in hypertensive emergency management with a focus on: current definitions; underlying aetiologies; the necessity of accurate history-taking and targeted evaluation and treatment strategies. Clinical concepts are reinforced with case-based illustrations of commonly

encountered hypertensive emergencies. Hypertensive emergencies and urgencies, while not common, are likely to be managed by all clinicians because of the high prevalence of chronic hypertension. It is essential, therefore, that all physicians have a working knowledge and resources to manage these conditions. Prompt but carefully considered therapy is necessary to limit morbidity and improve outcomes in this high- risk population.

Session 2

17.45 – 18.15

Managing new onset nephrotic syndrome

Dr Joe Eustace
Cork University Hospital



Biographical Sketch

Joe Eustace is Consultant Nephrologist at Cork University Hospital since 2005. He graduated with an MB, BAO BCh from University College Dublin in 1990. He completed his postgraduate training in General Internal Medicine and Nephrology in 1996 and has held the following appointments since then: Clinical Nephrology Fellowship Johns Hopkins Hospital, Baltimore 1996-1998; NIH Fellowship Clinical Epidemiology 1997-1999, MHS (Clin Epi) Bloomberg School of Public Health 1997-1999; Faculty, Dept of Nephrology 1999-2005; Assistant Professor, Department of Nephrology 2000-2005; Faculty Bloomberg School of Public Health 2001-2005; Director of Ambulatory Dialysis Services Johns Hopkins Hospital 2002-2005; State Commissioner, Maryland Kidney Commission 2002-2005.

He has previously been funded by the NIH (NIDDK), National Kidney Foundation and Johns Hopkins Clinical Scientist Award. He has authored or co-authored over 40 peer reviewed original scientific papers, and written 8 book chapters. Current research interest is Vascular and Bone Health in Renal Transplant Recipients, which is in part funded by CUH and by The Irish Nephrology Society via support of Dr Eustace's Research Registrar.

Overview of Presentation

The nephrotic syndrome (NS) is a systemic syndrome characterized by high level proteinuria (typically $>3.5\text{g/day}$) typically associated with generalized oedema, hyperlipidaemia and hypoalbuminaemia and a predilection to infection. Proteinuria may be quantified using spot urine protein-creatinine ratios without resorting to timed urine collections. 'Nephrotic range proteinuria' in the absence of systemic features represents a different condition. Diagnosis often requires percutaneous kidney biopsy. Etiologies include idiopathic, rare familial or secondary forms (paraneoplastic, amyloid, myeloma, HIV, Hepatitis C diabetes) or rarely drug toxicity (heroin, NSAIDs). Primary and some secondary forms may enter remission either spontaneously, following removal of inciting agent or with immunosuppression. Oedema often results from a systemic disturbance in capillary endothelial function in addition to hypoalbuminaemia and necessitates sodium restriction, escalating (occasionally intravenous) divided-dose, loop diuretics, often in combination with thiazides. Reduced IgG levels and skin breakdown predispose to infections. There is increased occurrence of pneumococcal

infections including primary peritonitis especially in children and African-Americans (pneumococcal vaccination is recommended). Venous thromboembolism is an uncommon though potentially fatal complication, is of a multifactorial etiology and may occur at atypical sites (cerebral venous thrombosis –sudden onset headaches, nausea-; portal vein; renal vein with acute kidney injury) Prophylactic anticoagulation should be considered in high risk individuals. Generic measures to reduce proteinuria include salt restriction, Renin, angiotensin, aldosterone blockade and use of non dihydropyridine calcium antagonists. Chronic cases have markedly elevated cardiovascular risk.

REFERENCES

- Prophylactic anticoagulation in nephrotic Syndrome. Glasscock R. *J Am Soc Nephrol* 2007;18:2221-5
- Adult Nephrotic syndrome. Non specific strategies for treatment. Charlesworth J. *Nephrology* 2008 13: 45-50
- Management of intractable edema in Nephrotic syndrome. Glasscock RJ. *Kidney Int Suppl* 1997;58:

Session 2

18.25 – 19.00

Hyponatraemia on call

Dr Denise Sadlier
Mater Misericordiae University Hospital, Dublin



Biographical Sketch

Denise Sadlier graduated from University College Dublin in 1996. She entered the Specialist Registrar Training programme in Nephrology and General Internal Medicine in 1999 and subsequently completed a Harvard Fellowship in Nephrology and Renal Transplantation working in both Brigham and Women's Hospital and Massachusetts General Hospital in Boston, USA. In December 2005, Dr Sadlier was awarded a PhD for research into the molecular pathogenesis of renal fibrosis. She returned to Dublin as a Consultant Nephrologist and Senior Lecturer in Medicine at University College Dublin in 2007 where her areas of interest clinically include cardio-renal syndrome, electrolyte disorders and glomerular disease. In addition, she continues to pursue an active research programme in diabetic nephropathy and renal fibrosis.

Overview of Presentation

Hyponatraemia is the most common electrolyte disorder seen in clinical practice. Intriguingly it can affect both healthy and ill populations and can present in a myriad of ways. Central to the management of hyponatraemia is determining the correct aetiology and pathogenesis but this can

be difficult, especially in the acute setting. This presentation will review all aspects of hyponatraemia paying special attention to the management of acute life-threatening hyponatraemia including a review of new therapeutic agents.

Session 2

19.10 – 19.20

Update on the unwell transplant patient

Dr Colm Magee
Beaumont Hospital, Dublin

*Picture unavailable
at time of print*

Biographical Sketch

Colm Magee graduated from RCSI in 1991. He completed General Medicine and Nephrology training in Beaumont Hospital from 1992 to 1996, followed by a Nephrology Fellowship in Brigham & Women's Hospital, Boston, USA. He was Attending Physician and Assistant Professor of Medicine in Brigham & Women's Hospital, 2000-2007. He has been Consultant Nephrologist in Beaumont Hospital since November 2007.

Dr Magee has clinical and research interests in many areas of nephrology, but especially transplantation.

Overview of Presentation

The talk will provide a brief overview for a general medical audience on current immunosuppression in renal

transplantation, important interactions with immunosuppressive drugs and how to manage the unwell transplant patient.

THE SCHEDULE for the 2008/2009

RCPI Masterclass Series: Treating the Acutely Ill Patient
is as follows:

November 5, 2008	4.00 – 7:30 pm
December 3, 2008	4.00 – 7:30 pm
February 4, 2009	4.00 – 7:30 pm
March 4, 2009	4.00 – 7:30 pm
April 1, 2009	4.00 – 7:30 pm
May 6, 2009	4.00 – 7:30 pm
June 3, 2009	4.00 – 7:30 pm

Finalised programmes will be made available on the
RCPI website at www.rcpi.ie in June 2008.