



ROYAL COLLEGE OF
PHYSICIANS OF IRELAND

MASTERCLASS

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

4.00 pm Wednesday, May 5, 2010

RCPI Masterclass Series 2009/2010
***Treating the Acutely Ill
Patient*** – Update and advances
in management of common medical
conditions presenting on call

**Part VI:
Endocrinology Session**



Welcome

Dr John Donohoe
President, RCPI

Dr Diarmuid O'Shea
Masterclass Series Convenor, RCPI



Dear Delegates,

In line with its mission to promote excellence in medical education and to support the advancement of the medical profession, we are pleased to welcome you to today's meeting – the Endocrinology session of the RCPI Masterclass Series on Treating the Acutely Ill Patient.

The RCPI Masterclass Series – which will run over seven sessions from October 2009 through to June 2010 – is aimed at keeping doctors up to date in evolving medical practice outside their specialty area and to facilitate their continuing medical education.

The objective of the series is to help those who are at the front line of our health service continuously improve their skills base, effectively facilitating excellence in patient care. The series brings together medical experts from a variety of specialties under a central theme, provides a senior forum for peer discussion and has in the past attracted unprecedented numbers for Irish training. The entire series will be webcast live to 26 regional hospitals and will also be available as a recorded webcast via the RCPI's Online Education and Resource Centre.

We would like to thank the chairs of this session, Dr Seamus Sreenan and Dr Diarmuid Smith, and the speakers for their contribution to the programme and the series.

Each session qualifies for 3 CME credits from RCPI (21 in total for the series).

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 helenmurray@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
Vice President for Education and
Professional Development
Royal College of Physicians of Ireland

TIME	TITLE	SPEAKER	CHAIR	
15.30 – 16.00	Registration			
16.00 – 16.25	Pituitary emergencies	Dr Antoinette Tuthill , University College Hospital Cork	Dr Seamus Sreenan , Connolly Hospital, Dublin	
16.25 – 16.30	Question and Answer Session			
16.30 – 16.55	Management of adrenal insufficiency	Dr Shu Hoashi , Midlands Regional Hospital, Mullingar		
16.55 – 17.00	Question and Answer Session			
17.00 – 17.25	Management of severe hypo and hypercalcemia	Dr Marcia Bell , Galway University Hospital		
17.25 – 17.45	Question and Answer Session			
17.45 – 18.00	Refreshments			
18.00 – 18.25	Hyponatremia in the hospital setting	Prof Christopher Thompson , Beaumont Hospital, Dublin		
18.25 – 18.30	Question and Answer Session			
18.30 – 18.55	Investigation and management of hypoglycemia	Dr Marie-Louise Healy St James's Hospital, Dublin		
18.55 – 19.00	Question and Answer Session			
19.00 – 19.15	Panel Discussion			

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

Dr Seamus Sreenan,
Connolly Hospital, Dublin



Dr Sreenan will chair Session 1

Seamus Sreenan is a Consultant in Diabetes and Endocrinology at Connolly Hospital, Blanchardstown in Dublin. In 2006 he was appointed as Associate Professor in the Department of Medicine at the Royal College of Surgeons in Ireland where he is also Vice-Dean for the Intermediate Cycle of the 5-year programme. Dr Sreenan also directs the second year of the RCSI Graduate Medical Programme at Connolly Hospital. Since taking up his appointment at RCSI, Dr Sreenan has also led a group developing a curriculum for RCSI on personal and professional development.

A native of Dublin, Dr Sreenan received his medical degree from University College Dublin. Having completed training in General Medicine in Dublin he trained in the Endocrinology Section at the University of Chicago Medical Center under the supervision of Dr Kenneth Polonsky where his research interest was the pathophysiology on insulin secretion in diabetes.

In addition to developing the clinical service in his current position Dr Sreenan is continues to pursue his research interests. Dr Sreenan is a Fellow of both Royal College of Physicians of Ireland and the UK.

Dr Diarmuid Smith,
Beaumont Hospital, Dublin



Dr Smith will chair Session 2

Diarmuid Smith qualified from University College Dublin in 1994, he completed his intern and medical SHO training in the Mater Hospital Dublin. Dr Smith entered the Irish Specialist Registrar Training programme in Diabetes and Endocrinology in 1997 and went to Kings College London

where he completed his MD thesis in the field of hypoglycaemia. He also was Lecturer in Endocrinology in St Vincents University Hospital and was appointed as Consultant Endocrinologist to Beaumont Hospital in 2005. His fields of interest are hypoglycaemia and diabetic vascular disease.

16.00 – 16.25

Pituitary emergencies

Dr Antoinette Tuthill,
University College Hospital Cork

Biographical Sketch

Antoinette Tuthill is a graduate of University College Cork. Dr Tuthill completed an MD investigating factors influencing weight gain in diabetes under the supervision of Professor T.J.McKenna at St Vincent's University Hospital, Dublin and then moved to Addenbrooke's Hospital Cambridge for further training/experience in the field of insulin resistance, metabolically normal obesity, diabetes in pregnancy and pituitary disease with Professor Steve O'Rahilly and Dr Nick Finer. Dr Tuthill took up the position of Consultant Endocrinologist in Cork University Hospital in 2008.

Overview of Presentation

The presentation will primarily focus on features that should alert a Registrar or Senior House Officer working in an Emergency Department to consider

a diagnosis of pituitary apoplexy / insufficiency in an individual patient, and discusses the most important aspects of management of this condition.

16.30 – 16.55

Management of adrenal insufficiency

Dr Shu Hoashi,
Midlands Regional Hospital, Mullingar



Biographical Sketch

Shu Hoashi graduated from the Royal College of Surgeons in Ireland and completed the endocrinology SpR programme in Ireland followed by Research Fellowship in the Institute of Metabolic Science in Addenbrooke's Hospital in Cambridge. Dr Hoashi was appointed as Consultant Physician/Endocrinologist in Midlands Regional Hospital in Mullingar in 2008, and now chairs the Midland Diabetes Implementation Group. Dr Hoashi's research interests include hypoglycaemia in diabetes, and the interaction of the innate immune system with the development of type 2 diabetes and complications.

Overview of Presentation

Acute adrenal insufficiency can be fatal if not recognised and treated. Two cases will be discussed and discussion will revolve around physiology of the hypothalamic pituitary adrenal axis and pathophysiology of adrenal insufficiency, investigation and management of acute adrenal insufficiency.

Primary adrenal insufficiency will require lifelong follow up and issues surrounding quality of life, optimal replacement therapy and potential new therapeutic developments will be discussed.

Session 1

17.00 – 17.25

Management of severe hypo and hypercalcemia

Dr Marcia Bell,
Galway University Hospital



Biographical Sketch

Marcia Bell graduated from Trinity College, Dublin in 1996, and completed general professional training in Medicine at the Federated Dublin Hospitals. She completed specialist training in Endocrinology and Diabetes with the Royal College of Physicians of Ireland in 2004. She held the position of Lecturer in Medicine and Researcher in Molecular Biology and Gene Therapy at NUI Galway from 2003 to 2005. Thereafter she undertook a clinical Fellowship in Endocrinology at St Bartholomew's Hospital and the Queen Mary, University of London. In 2007 she was appointed as a Consultant Endocrinologist at Galway University Hospital. Working as a Consultant Endocrinologist in a busy academic teaching hospital provides many opportunities to deal with endocrine emergencies including those of calcium dysregulation. Dr Bell has a clinical research interest in the metabolic effects of Vitamin D.

Overview of Presentation

This presentation will provide an overview of the acute management of the life threatening conditions of hypo and hypercalcemia. It is not meant to be an

extensive review of calcium dysregulation but will provide a practical approach to managing the acutely ill patient with severely abnormal calcium levels.

Session 2

18.00 – 18.25

Hyponatremia in the hospital setting

Prof Christopher Thompson,
Beaumont Hospital, Dublin



Biographical Sketch

Christopher Thompson qualified in Dundee, Scotland in 1981 and was awarded his MD thesis on osmoregulation in type 1 diabetes by the University of Newcastle upon Tyne, work sponsored by the MRC. Professor Thompson worked as Lecturer in Endocrinology in Edinburgh, and won an MRC travelling fellowship to work in postgraduate research in the Department of Physiology, UCSF, San Francisco, where he was awarded an Associate Professorship. He worked as Senior Lecturer in Endocrinology in the University of Glasgow, before moving to Beaumont Hospital/RCSI Medical School, where he is Professor of Endocrinology. He is Secretary/Treasurer of the Irish Endocrine Society and has previously acted as Deputy National Specialty Director, Endocrinology and Chairman of the Diabetes Federation of Ireland. Professor Thompson has been a member of the Medical and Scientific Advisory Board of the Gaelic Athletic Association and is Team Doctor to the Dublin Senior Hurling team. He is author of over 150 papers, review articles and book chapters, with a special focus on salt and water metabolism, and has been an invited speaker at many international meetings.

Overview of Presentation

Hyponatraemia (plasma sodium concentration < 135 mmol/l) is the commonest electrolyte abnormality in hospitalised patients. Cross sectional studies report the prevalence of hyponatraemia to be 20-30% of hospitalised patients with high incidence in neurosurgical, pulmonary, geriatric, intensive care and oncology units. Up to 6% of patients have severe hyponatraemia (plasma sodium < 125 mmol/l).

Symptoms of hyponatraemia are related both to the level of plasma sodium concentration and to the rate of fall of plasma sodium,

with faster rates of fall more likely to cause neurological sequelae such as confusion, gait unsteadiness, drowsiness, seizures and stupors. Recent data, which will be discussed, indicates that even mild/moderate hyponatraemia is associated with gait disturbances, increased fall risk and fracture.

Treatment of hyponatraemia has been shown to abolish symptoms, reverse gait disturbances and improve quality of life. Treatment is dependent on accurate assessment of the cause of hyponatraemia.

Session 2

18.30 – 18.55

Investigation and management of hypoglycemia

Dr Marie-Louise Healy
St James's Hospital, Dublin

Biographical Sketch

Marie-Louise Healy is a Consultant in Endocrinology and General Medicine at St James's Hospital, Dublin. Dr Healy graduated from Trinity College Dublin in 1992. Her clinical and research interests include Thyroid Cancer, Thyroid Disease and Reproductive Endocrinology.

Overview of Presentation

The aim of this presentation is to provide guidelines for the evaluation and management of adults with hypoglycaemic disorders in the absence of diabetes mellitus. An algorithm for the management of acute hypoglycaemia in the emergency setting will be provided. A step-wise approach to diagnosis will also be presented. Advice will be provided on appropriate patient selection, targeted history taking and the formulation of an appropriate differential diagnosis. The investigative pathway will then be introduced with an explanation of the underlying physiology.

Three cases are to be presented, each employing the same diagnostic pathway, but illustrating three different causes of hypoglycaemia. A brief review of insulinoma and non-islet cell tumours will be presented through the case presentations.

In the patient without diabetes who presents with hypoglycaemia, the primary task is to make an accurate diagnosis and this presentation is structured to present an easy, structured approach to diagnosis.

THE FINAL SESSION in the *2009/2010 RCPI Masterclass Programme* will be *Part VII: Nephrology Session* and will take place from 16.00 to 19.30, 2 June 2010.

This meeting is supported by an unrestricted educational grant provided by Eli Lilly


Answers That Matter.