



**DOCTORS
ACADEMY**

Disseminating Medical Knowledge
and Skills Globally

Applied Surgical Sciences and Critical Care Course for MRCS Part B

DATES: 14th April 2011 (Thursday)

Time: 0825 – 1900 hrs;

VENUE: Room 2/21, Ty Dewi Sant, University Hospital of Wales, Cardiff

Course Programme

0815 – 0825

Registrations

MORNING SESSION

0825 – 0830

Welcome, introduction and format (Mr Stuart Enoch)

0830 – 0900

General Physiological Principles 1: (Dr Paul Morgan)

- Homeostasis, feedback loops and acid-base balance

0900 – 0930

General Physiological Principles 2: (Dr Paul Morgan)

- Applied acid-base analysis

0940 - 1040

Cardiovascular System (Dr Melvyn Jenkins-Welch)

- Cardiac pressure cycle
- Control of cardiac output
- Blood pressure and its control mechanisms
- Inotropes and their actions

Coffee Break: 1045 – 1100 hrs

1105 - 1135

General Physiological Principles 3: (Dr Paul Morgan)

- Bleeding and coagulation

1135 - 1215

Burns (Mr Stuart Enoch)

- Assessment
- Indications for referral
- Pathophysiology and principles of management

1215 - 1255

General Physiological Principles 4: (Dr Paul Morgan)

- Resuscitation, sepsis and septic shock

Lunch Break: 1300 - 1345

AFTERNOON SESSION

1345 – 1445

Endocrine physiology (Dr Jason Seewoodhary)

- Function of pituitary
- Basic physiology of thyroid and parathyroid glands
- Disorders of calcium metabolism
- Basic physiology of adrenal gland and glucocorticoids
- Glucose homeostasis and diabetes in surgery
- Hypothyroidism and hyperthyroidism
- Corticosteroids in surgery

1445 - 1545

Respiratory system (Dr Melvyn Jenkins-Welch)

- Normal ventilatory cycle
- Controls of ventilation
- Causes and management of post-operative respiratory failure
- Indications for ventilatory support and weaning off ventilator
- Intermittent positive pressure ventilation
- Acute (adult) respiratory distress syndrome
- Applied critical care physiology during the peri-operative period

Coffee Break: 1545 -1600 hrs

1600 – 1630

Gastrointestinal system (Dr Melvyn Jenkins-Welch)

- Post-operative ileus
- Nutrition
- Re-feeding syndrome

1630 - 1700

Central nervous system (Dr Paul Morgan)

- Cerebral autoregulation
- Causes and management of raised intra-cranial pressure including space- occupying lesions

1700 – 1750

Renal system (Dr Gareth Scholey)

- Renal autoregulation
- Renin-angiotensin system
- Types and management of renal failure
- Erythropoietin

1750 - 1845

OSCE Scenarios and TIPS for OSCE (Dr Paul Morgan)

1845- 1855

Summary and Feedback

1900: END OF COURSE!