





# Cardiff MRCS OSCE: Applied Surgical Sciences & Critical Care

In the final part of the MRCS exam, surgical trainees are expected to have a good working knowledge of general physiological principles as well as core knowledge of the physiology of specific systems and an understanding of their application in surgical practice.

This intensive one-day revision course provided the candidates with an overview of basic physiological principles and of the physiology of the respiratory, cardiovascular, renal, endocrine, gastrointestinal, and central nervous systems.

The interactive lectures were delivered in way which would help the candidates to answer the OSCE/viva stations in a structured, systematic and concise manner.

#### **Course Information**

Course date: 20th April 2017

Venue: Doctors Academy International

**Institute of Medical Education** 

Cardiff

Attendance: 28 Delegates

Aimed at: Delegates looking to take

their membership to the Royal College of Surgeons

Part B exam.

Course fee: £190.00



Surgical trainees can apply to be sponsored by ASIT to receive a bursary to attend this course.

#### Topics:

- General physiological principles
- Acid-base imbalance (metabolic and respiratory acidosis/alkalosis) and their management
- Fluid balance and fluid replacement therapy
- Renal physiology
- Bleeding and coagulation
- Management of sepsis and septic shock
- Homeostasis and thermoregulation
- Hypothermia
- Principles of epidural anaesthesia
- Gastrointestinal system
- Cardiovascular system and critical care
- Endocrine physiology
- Neurophysiology and management of head injury
- Burns



# **Course Programme**

0815 - 0825	Registration
	MORNING SESSION
0825 - 0830	Welcome, Introduction and Format (Prof Stuart Enoch)
0830 - 0900	General Physiological Principles 1 (Dr Paul Morgan)  • Homeostasis, feedback loops  • Applied acid-base balance
0900 - 1000	Respiratory system (Dr Teresa Evans)  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
1000 - 1100	Cardiology (Mr Tom Combellack)  Cardiac cycle  JVP  STEMI  Arrhythmias  Pre-op aspects including murmurs  Valvular heart disease  Congestive Cardiac Failure

1100 - 1120	Coffee Break
1120 - 1215	Cardiothoracic Surgery (Mr Tom Combellack)
	Cardiothoracic surgery basics including CABG
	Valve replacement surgeries
	• Lung cancer
	Pnemonectomies
	Thoracic trauma
1215 - 1250	General Physiological Principles 2 (Dr Paul Morgan)
	• Sepsis
	Septic shock
1250 - 1330	Lunch Break

# **Course Programme**

### AFTERNOON SESSION

1330 - 1400	General Physiological Principles 3 (Dr Paul Morgan)  • Bleeding  • Coagulation/Anti-coagulation
1400 - 1430	Resuscitation, Temperature Regulation, and Hypothermia (Dr Paul Morgan)
1430 - 1540	Principles in the Management of Trauma and Fractures (Mr Rhys Morris)
1540 - 1600	Coffee Break
1600 - 1640	Central nervous system (Dr Paul Morgan)  Cerebral autoregulation  Causes and management of raised intra-cranial pressure including space occupying lesions  Head Injury
1640 - 1705	Principles of Epidural Anaesthesia/Assessment; Pain pathways (Dr Paul Morgan)
1705 - 1750	Management of Burns (Prof Stuart Enoch)  • Assessment  • Pathophysiology and principles of management  • Inhalation burns  • Fluids and Nutrition  • Indications for referral
1750 - 1805	Rhabdomyolysis (Prof Stuart Enoch)
1805 - 1840	Short topics in Surgical Critical Care (Prof Stuart Enoch)
1840 - 1910	Essentials of Microbiology (Prof Stuart Enoch)
1915	END OF COURSE!

### **Faculty List**

# Dr Paul Morgan, FRCA Examiner - Royal College of Surgeons of England

Consultant Intensivist, Adult Critical Care University Hospital of Wales, Cardiff

### Professor Stuart Enoch, MB BS, PhD, PGCert (Med Sci), MRCSEd, MRCS (Eng)

Senior Lecturer; Director of Education & Research Doctors Academy Group

### Dr Teresa Evans, FRCA

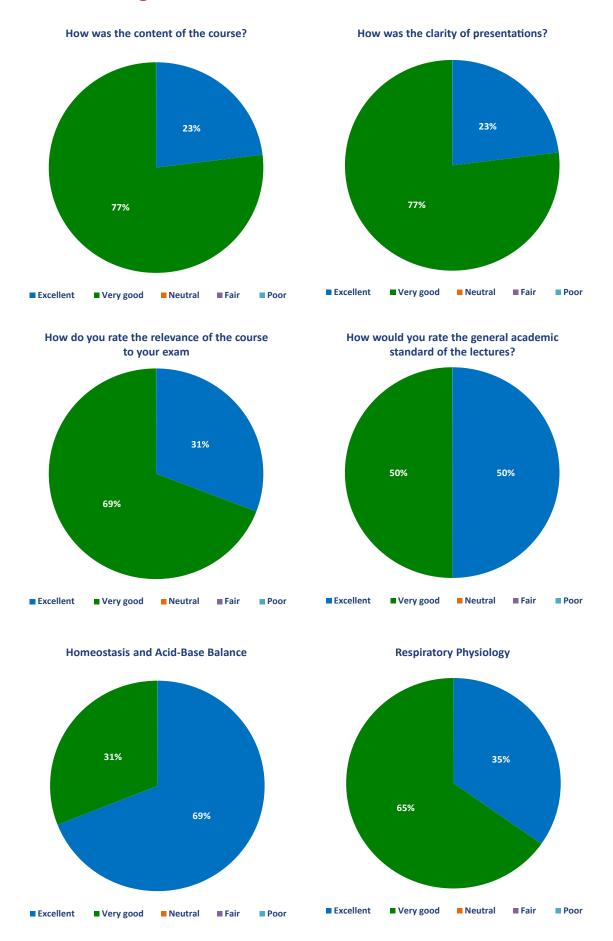
Consultant Anaesthetist Royal Gwent Hospital, Newport

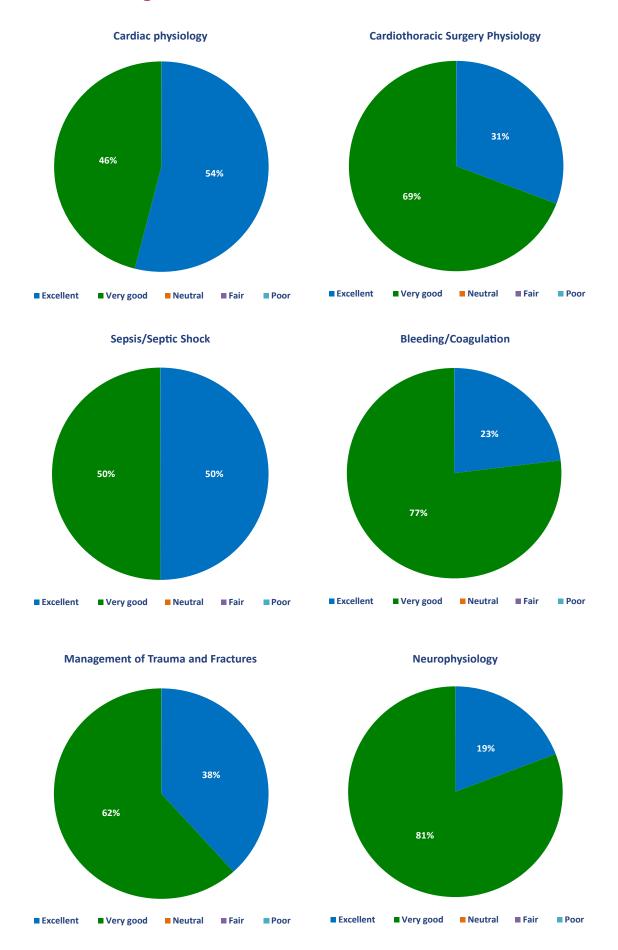
### Mr Tom Combellack MBBCh; MRCS

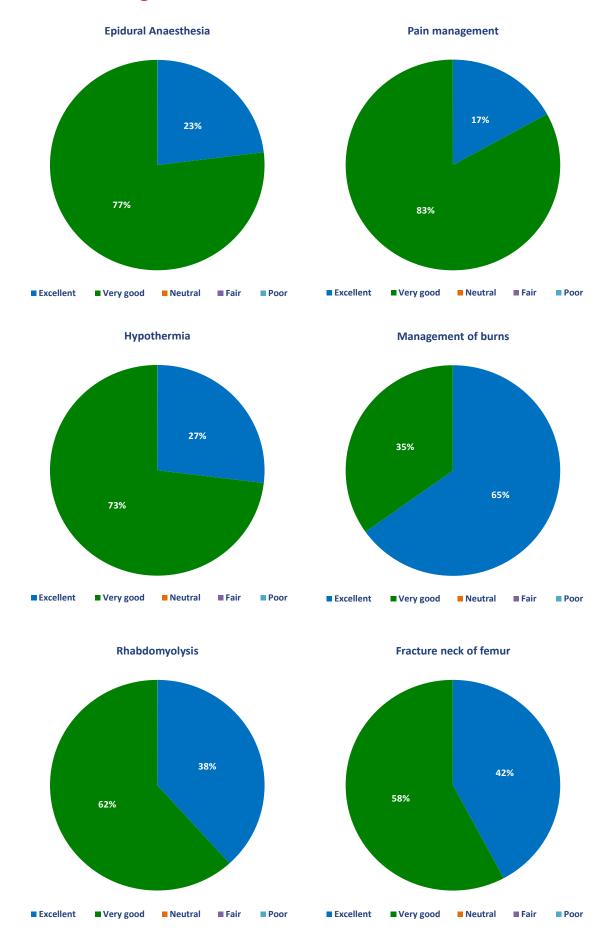
Speciality Registrar in Cardiothoracic Surgery University Hospital of Wales, Cardiff

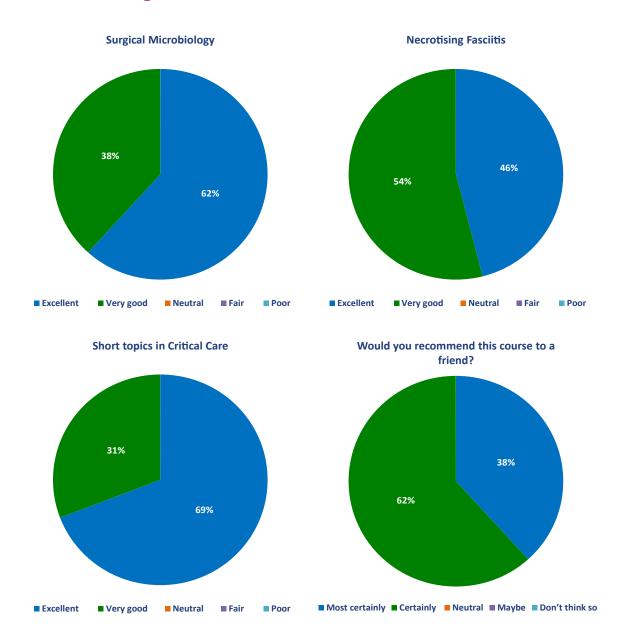
### Mr Rhys Morris MBChB, BSC, MSc, MRCS, PGCMed Ed

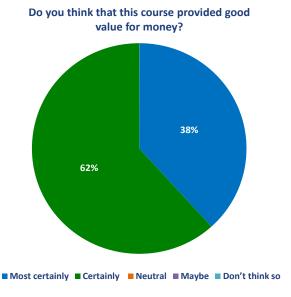
Speciality Trainee in Trauma and Orthopaedics Wales Deanery











# **Individual Comments**

Anatomy prosections were brilliant.	
	AC Manchester Royal Infirmary, Manchester
Amazing.	
	CB William Harvey Hospital, Ashford
Extremely good overview.	
	LT Arrowe Park Hospital, Wirral
Very good, compact and targeted course.	
	RL Derriford Hospital, Plymouth
Excellent. Fast pace, but appropriate for proximity to exam.	
	RM Frimley Park Hospital, Frimley
Very useful for the exam revision and preparation.	
	AT St George's Hospital (London), London
Intense, good topics.	
	TT Kettering General Hospital, Kettering
Excellent.	
	BS Addenbrooke's Hospital, Cambridge
The teaching was mostly focused on how to go through the sconfident having attended the course.	tations which was very good. I feel a lot more
	IP

Huddersfield Royal Infirmary, Huddersfield

# **Individual Comments**

Very good.	
Evaclopt	DB Royal Hallamshire Hospital, Sheffield
Excellent.	MW Milton Keynes General Hospital, Milton Keynes
Very well executed course.	LG John Radcliffe Hospital, Oxford
T+O and respiratory talks were really good.	
	LP University Hospital of Wales, Cardiff



Doctors Academy is a UK-based International Non-Profit Organisation comprising of doctors, dentists and scientists that undertakes a diverse range of educational activities globally. The aim of the Academy is to disseminate information and exchange medical knowledge between professionals from diverse backgrounds working in a variety of healthcare settings. This is achieved by the provision of a number of attendance courses, publishing house, online resources and international events/ competitions.

#### Courses (a selection):

#### **Undergraduate:**

- Final Year Medicine and Surgical Revision Courses
- Training the Clinical Anatomy Trainer
- Clinical Anatomy as Applied to Trauma and Emergency Medicine
- Surgical Anatomy of Important Operative Procedures
- Future Surgeons: Key Skills (RCSEd delivered)
- Structured Introduction to Surgical Skills

#### Postgraduate:

- MRCS Part A
- MRCEM Part A
- MRCS Part B OSCE
- DOHNS: Intensive Revision & OSCE
- Intercollegiate Basic Surgical Skills (RCSEd delivered)
- MRCP PACES Part 2
- FRCS (General Surgery) Exit Exam
- Cadaveric Ultrasound-Guided Musculoskeletal Intervention Course
- Ultrasound-Assisted Botulinum Toxin Injection for Neuromuscular Disorders
- Live Advanced Laparoscopic Colorectal Course



#### Forthcoming key events:

- International Medical Summer School Manchester, 31st July to 4th August 2017
- International Academic and Research Conference Manchester, 5th August 2017
- World University Anatomy Challenge Manchester, 4th August 2017

#### **Publications**



### publications.doctorsacademy.org

#### **World Journal of Medical Education & Research**

Peer-reviewed academic journal with ISSN.

No fee to view, read and download articles No subscription charges No submission fees No manuscript processing fee No publishing fee No cost to read, write or publish!

wjmer.co.uk

#### **Online Revision Resources**

DoctorExams consists of 1000s of questions with detailed explanations in MCQ, EMQ, SBA and SAQ formats. Questions are written by the Doctors Academy group of experienced clinicians and clinical academics, with mock exams and feedback on performance included to aid a candidate's focused revision of topics. Based on past exams, these questions are carefully crafted to suit the requirements of undergraduate students & postgraduate trainees undertaking relevant speciality exams.

#### Resources for:

- Medical Students

- General Surgery Exams

- Dental Students

- Plastic Surgery Exams

- International Entrance Exams

- DOHNS Exams

- MRCS Exams

www.doctorexams.co.uk

www.doctorsacademy.org