



# DOCTORS ACADEMY

BETTER EDUCATION. BETTER HEALTH.

**Cardiff MRCS OSCE Course:  
Applied Surgical Sciences  
& Critical Care**

**Feedback - January 2019**

## 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

<b>Course date:</b>	<b>17<sup>th</sup> January 2019</b>
<b>Venue:</b>	<b>School of Biosciences, Cardiff University, Cardiff</b>
<b>Attendance:</b>	<b>34 Delegates</b>
<b>Aimed at:</b>	<b>Delegates looking to take their membership to the Royal College of Surgeons Part B exam.</b>
<b>Course fee:</b>	<b>£190.00</b>



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

0820 - 0830            Welcome, Introduction and Format (Prof Stuart Enoch)

0830 - 0930            **Physiological Principles in the Management of Trauma (Prof Stuart Enoch)**

- Long bone fractures
- Fracture neck of femur
- Pelvic fractures
- Polytrauma
- Compartment syndrome
- Nerve injuries

0930 - 1040            **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

1040 - 1100

Coffee Break

1105 - 1135            **General Physiological Principles 1 (Dr Paul Morgan)**

- Homeostasis, feedback loops
- Applied acid-base balance

1135 - 1210            **General Physiological Principles 2 (Dr Paul Morgan)**

- Sepsis
- Septic shock

1210 - 1250            **General Physiological Principles 3 (Dr Paul Morgan)**

- Bleeding
- Coagulation/Anti-coagulation

1255 - 1340

Lunch Break

# Course Programme

## AFTERNOON SESSION

<b>1340 - 1420</b>	<b>Management of Major Burns (Prof Stuart Enoch)</b> <ul style="list-style-type: none"><li>• Assessment</li><li>• Pathophysiology and principles of management</li><li>• Inhalation burns</li><li>• Fluids and Nutrition</li><li>• Indications for referral</li></ul>
<b>1425 - 1445</b>	<b>Rhabdomyolysis (Prof Stuart Enoch)</b>
<b>1445 - 1530</b>	<b>Spinal Cord Injuries and Cord Syndromes (Prof Stuart Enoch)</b>
<b>1530 - 1600</b>	<b>Infection and Surgical Microbiology (Prof Stuart Enoch)</b>
<b>1600 - 1620</b>	<b>Coffee Break</b>
<b>1625 - 1655</b>	<b>General Physiological Principles 4 (Dr Paul Morgan)</b> <ul style="list-style-type: none"><li>• Resuscitation</li><li>• Temperature Regulation</li><li>• Hypothermia</li></ul>
<b>1700 - 1730</b>	<b>General Physiological Principles 5 (Dr Paul Morgan)</b> <ul style="list-style-type: none"><li>• Principles of Epidural Anaesthesia/Assessment</li><li>• Pain pathways</li><li>• Pre-op Assessment</li></ul>
<b>1735 - 1805</b>	<b>Central nervous system (Dr Paul Morgan)</b> <ul style="list-style-type: none"><li>• Cerebral autoregulation</li><li>• Causes and management of raised intra-cranial pressure</li><li>• Management of Head Injury</li></ul>
<b>1800 - 1845</b>	<b>OSCE topics in Surgical Critical Care (Prof Stuart Enoch)</b>
<b>1845</b>	<b>END OF COURSE!</b>

## 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

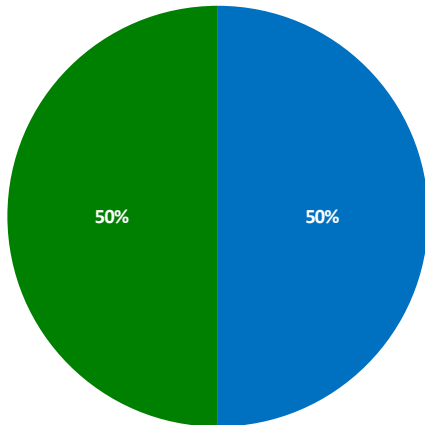
**Dr Teresa Evans FRCA**

Consultant Anesthetist

Royal Gwent Hospital, Newport

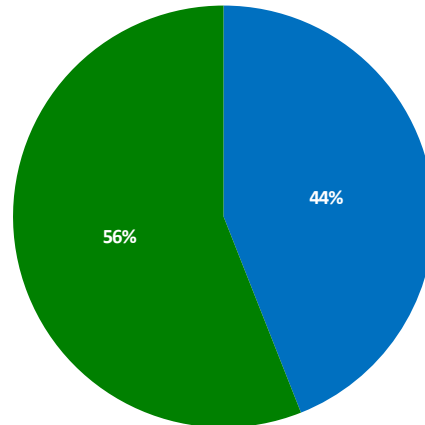
# Overall Teaching Feedback

How was the content of the course?



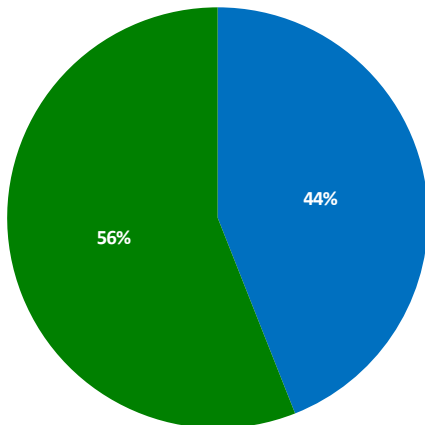
■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

How was the clarity of presentations?



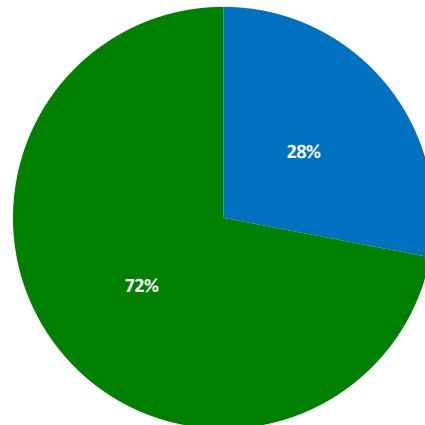
■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

How do you rate the relevance of the course to your exam?



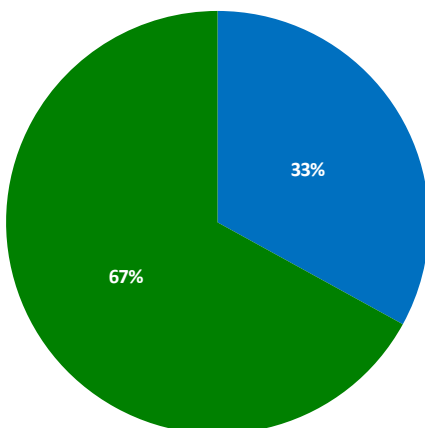
■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

How would you rate the general academic standard of the lectures?



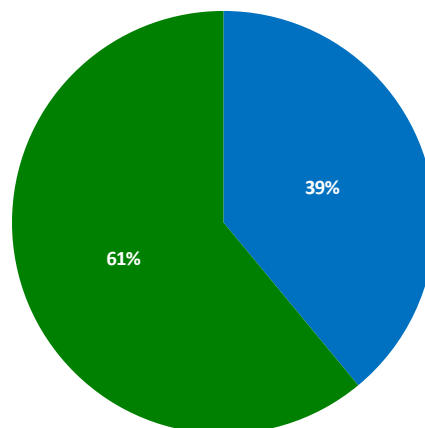
■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

Homeostasis and Fluid Management



■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

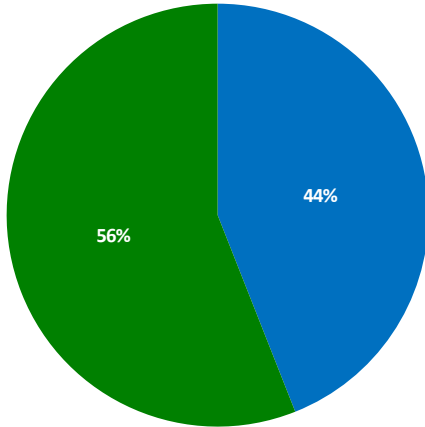
Applied Acid-Base Balance



■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

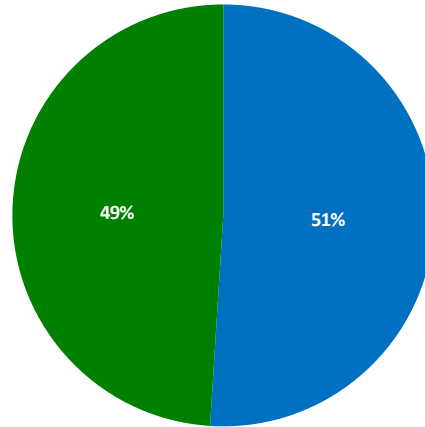
# Overall Teaching Feedback

Sepsis



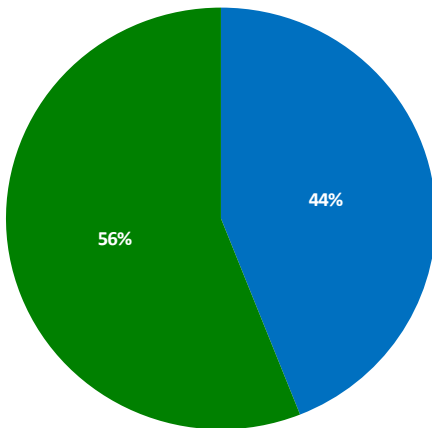
■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

Septic Shock



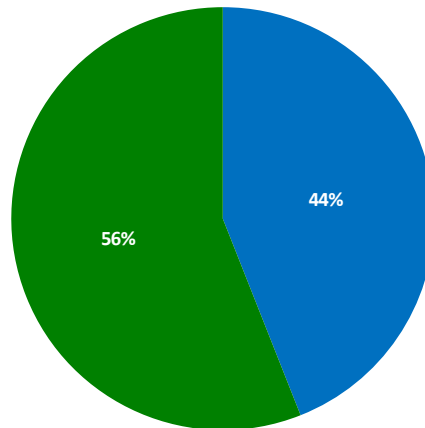
■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

Normal Ventilatory Cycle



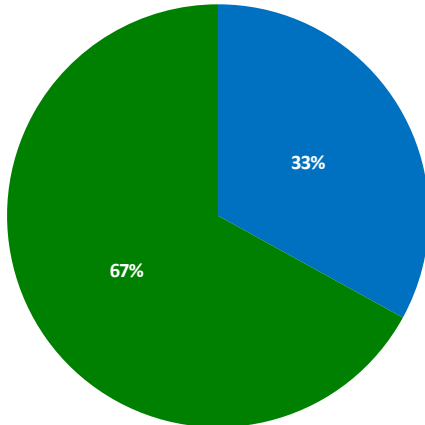
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Controls of Ventilation



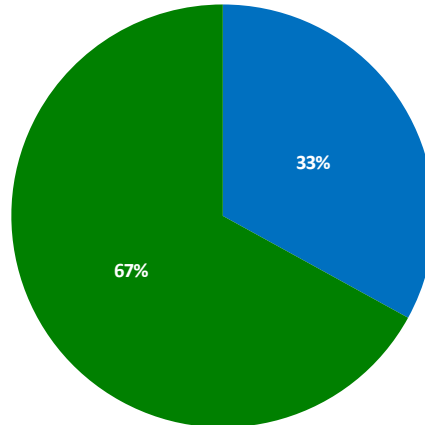
■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

Causes and Management of Post-operative Respiratory Failure



■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

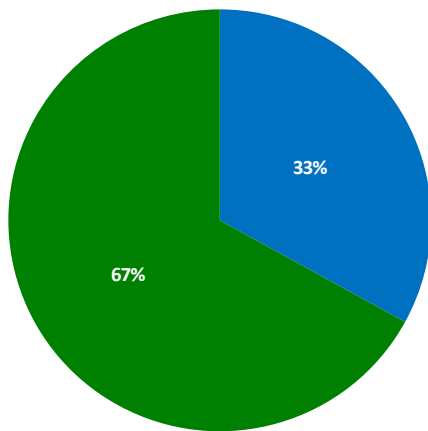
Indications for Ventilatory Support and Weaning Off Ventilator



■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

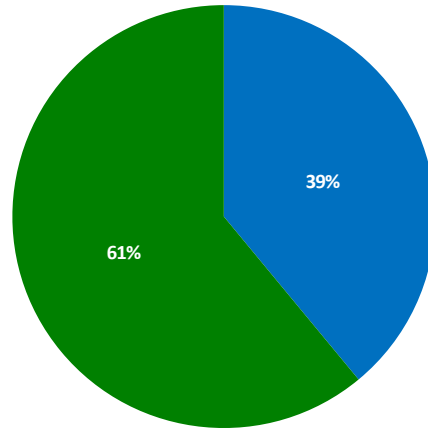
# Overall Teaching Feedback

Intermittent Positive Pressure Ventilation



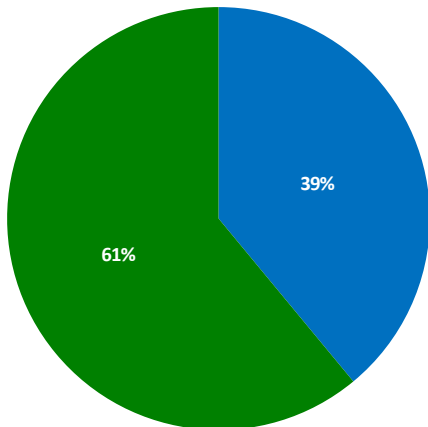
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Acute Respiratory Distress Syndrome



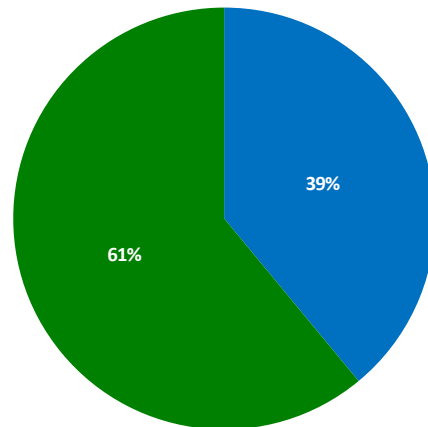
■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

Pathophysiology and Principles of Management in Burns



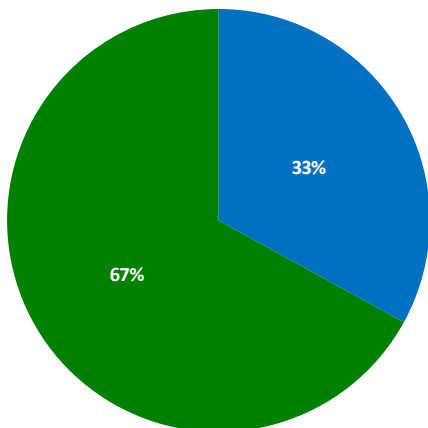
■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

Inhalation Burns



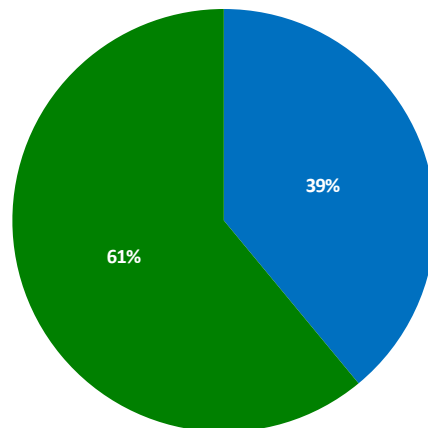
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Fluids and Nutrition in Burns



■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

Indications for Referral in Burns

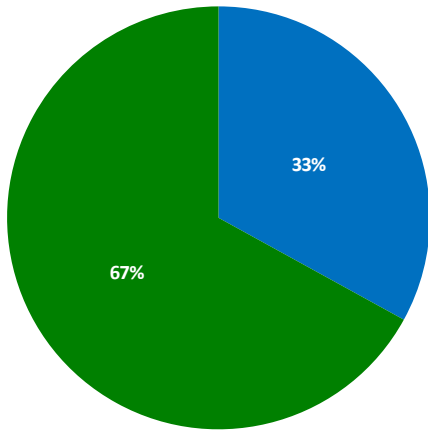


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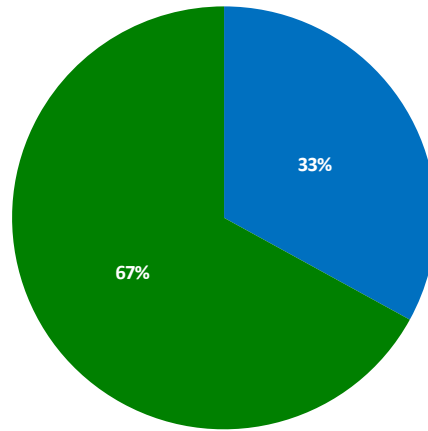
# Overall Teaching Feedback

Principles of Management of Pelvic Fractures



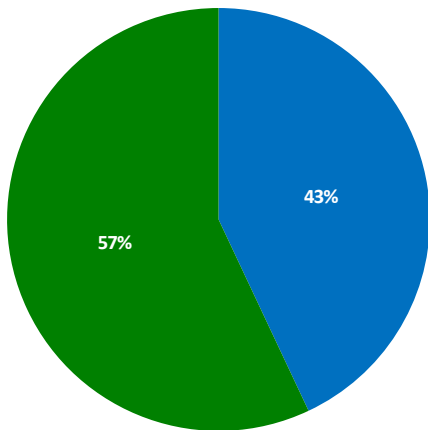
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Long Bone Fractures



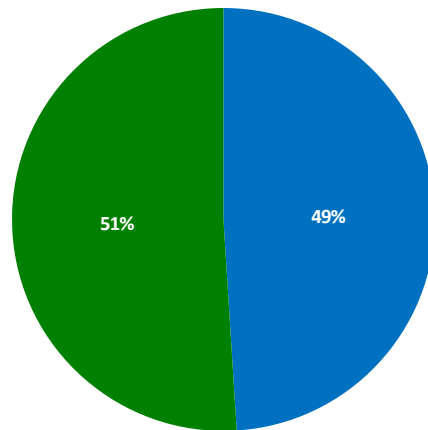
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Compartment Syndrome



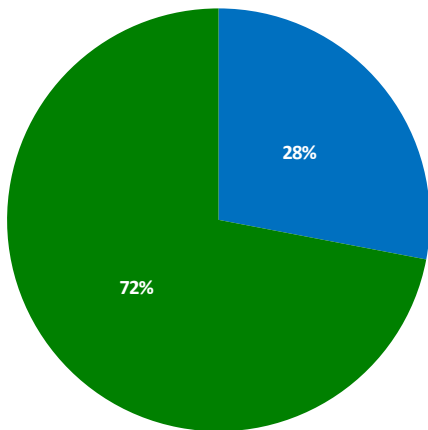
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Basics of Tuberculosis



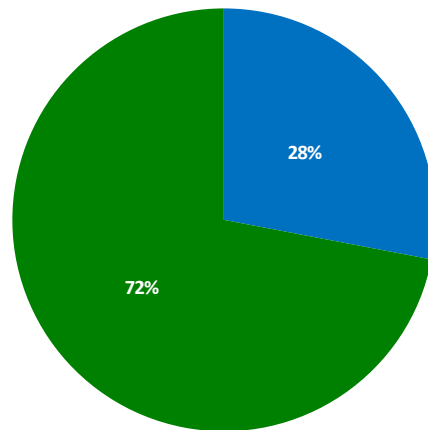
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Bleeding



■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

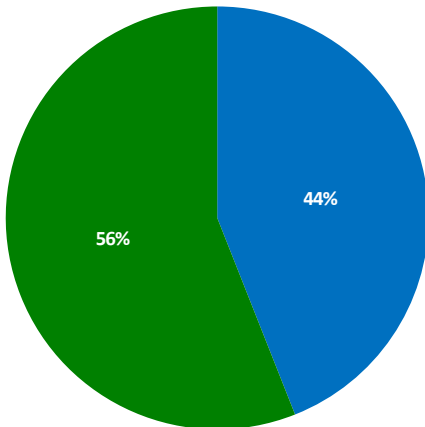
Coagulation/Anti-coagulation



■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

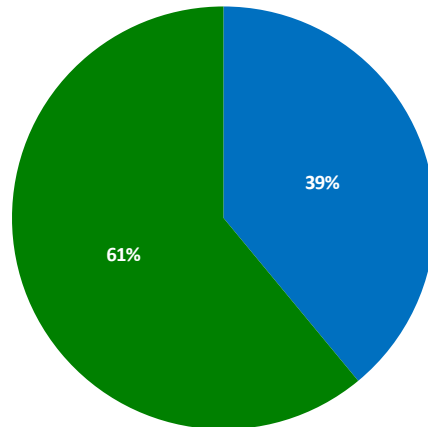
# Overall Teaching Feedback

Resuscitation



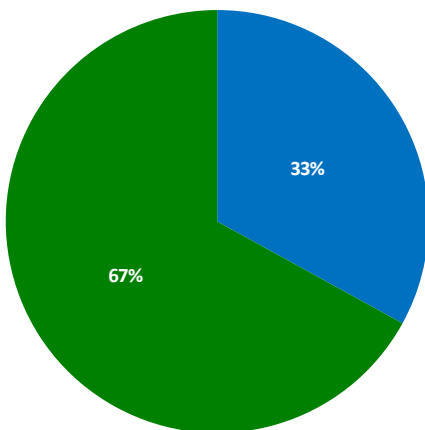
■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

Temperature Regulation



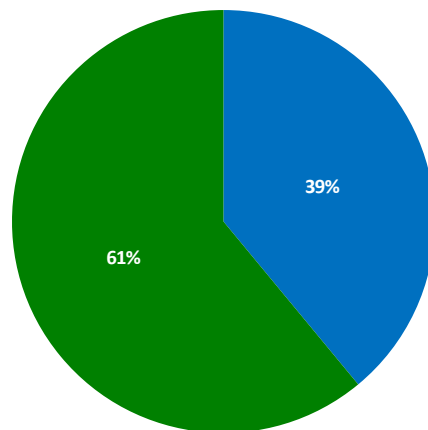
■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

Hypothermia



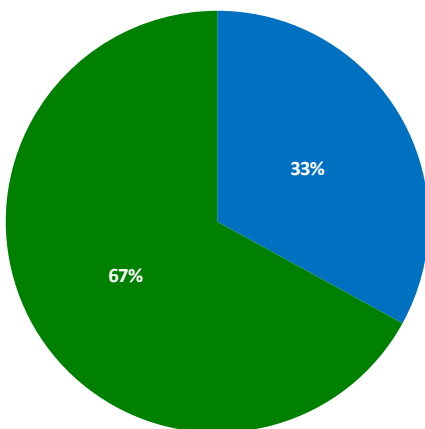
■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

Necrotising Fasciitis



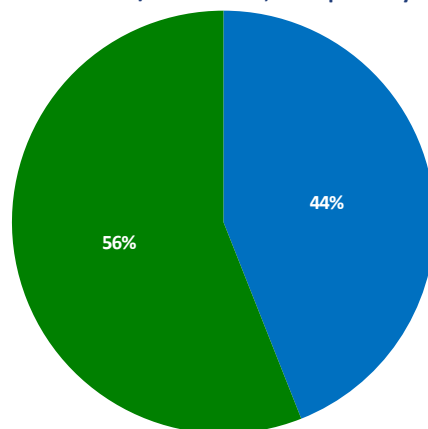
■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

Acute Kidney Injury



■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

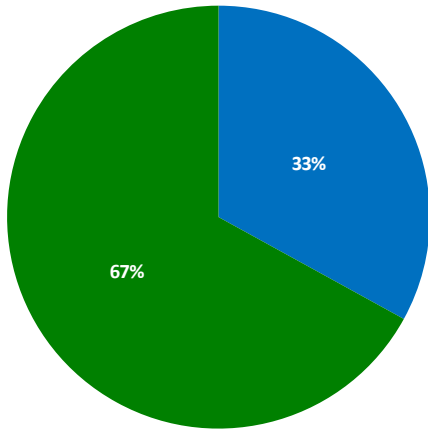
Principles of Epidural Anaesthesia/Assessment; Pain pathways



■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

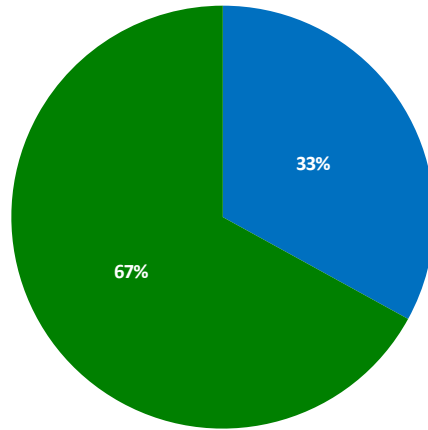
# Overall Teaching Feedback

Rhabdomyolysis



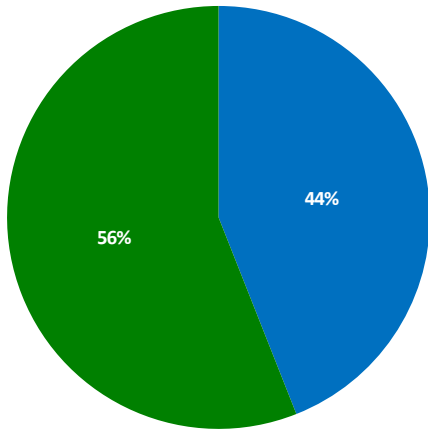
■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

Head Injury



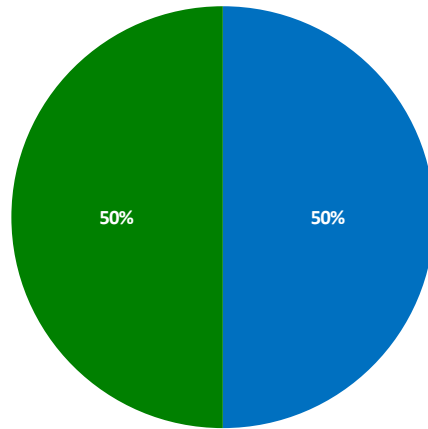
■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

Subarachnoid Haemorrhage



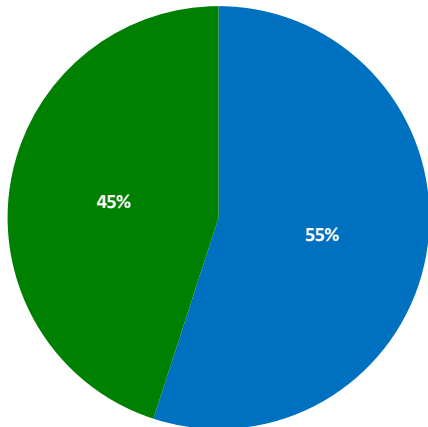
■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

Spinal Cord Lesions



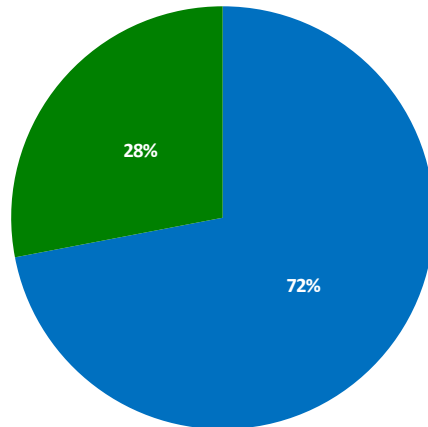
■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

Would you recommend this course to a friend?



■ Most certainly ■ Certainly ■ Neutral ■ May be ■ Don't think so

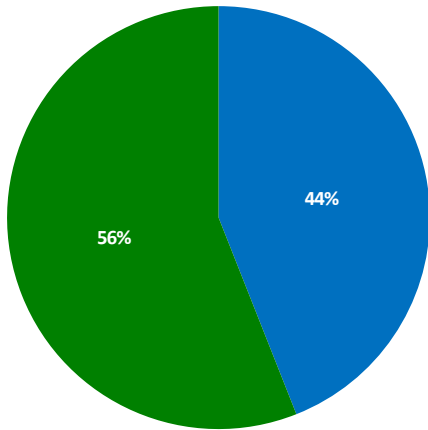
Do you think that this course provided good value for money?



■ Most certainly ■ Certainly ■ Neutral ■ May be ■ Don't think so

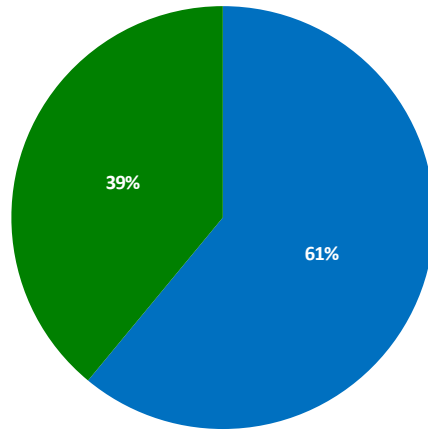
# Overall Teaching Feedback

How were the facilities and venue?



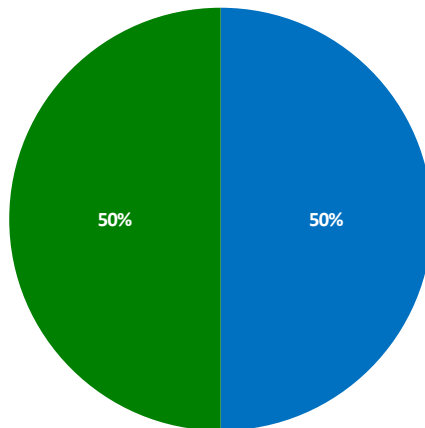
■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

How were the refreshments and lunch?



■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

How was the general friendliness of the faculty and organisers?



■ Very friendly ■ Friendly ■ Neutral  
■ Not very friendly ■ Can't comment

## Individual Comments

Exhausting but satisfied with vast amount of reinforced knowledge.

**MZ**

*Queen Elizabeth Medical Centre, Birmingham*

Excellent. I wish I had the opportunity to sit one more prior to my exam. It was extremely helpful.

**KH**

*Gloucestershire Hospitals NHS Foundation Trust, United Kingdom, Europe*

Very good.

**SP**

*Columbia Asia Hospital, Pune, India*

It was an enjoyable experience. I would highly recommend it.

**EC**

*St Helier Hospital, Carshalton*

Great.

**AM**

*North Manchester General Hospital, Manchester*

Great - thank you.

**LH**

*Musgrove Park Hospital, Taunton*

Very impressed. Very concise.

**JG**

*MATER DEI HOSPITAL, MALTA*

Excellent course. Very well organised.

**MQ**

*Blackpool Victoria Hospital*

Keep it up.

**SP**

*Columbia Asia Hospital, Pune, India*

It was good.

**AM**

*North Manchester General Hospital, Manchester*



# DOCTORS ACADEMY

BETTER EDUCATION. BETTER HEALTH.

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
- International Academic and Research Conference
- World University Anatomy Challenge

## Publications



[publications.doctorsacademy.org](http://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](http://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
- Dental Students
- International Entrance Exams
- MRCS Exams
- General Surgery Exams
- Plastic Surgery Exams
- DOHNS Exams

[www.doctorexams.co.uk](http://www.doctorexams.co.uk)

# [www.doctorsacademy.org](http://www.doctorsacademy.org)