

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

Feedback - April 2018

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:	12th April 2018
Venue:	School of Biosciences, Cardiff University, Cardiff
Attendance:	26 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

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 - 1035 **Respiratory System (Dr Mike Argent)**

- 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

1035 - 1055

Coffee Break

1100 - 1200 **Cardiovascular System (Dr Gareth Scholey)**

- Cardiac cycle
- JVP
- STEMI
- Arrhythmias
- Cardiac failure and blocks
- Inotropes

1205 - 1305 **Renal Physiology (Dr Gareth Scholey)**

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

1305 - 1340

Lunch Break

Course Programme

AFTERNOON SESSION

1340 - 1410	General Physiological Principles 1 (Dr Paul Morgan) <ul style="list-style-type: none">• Homeostasis, feedback loops• Applied acid-base balance
1410 - 1450	General Physiological Principles 2 (Dr Paul Morgan) <ul style="list-style-type: none">• Sepsis• Septic shock
1450 - 1520	General Physiological Principles 3 (Dr Paul Morgan) <ul style="list-style-type: none">• Bleeding• Coagulation/Anti-coagulation
1530 - 1600	Resuscitation, Temperature Regulation, and Hypothermia (Dr Paul Morgan)
1600 - 1630	Principles of Epidural Anaesthesia/Assessment; Pain pathways (Dr Paul Morgan)
1630 - 1650	Coffee Break
1650 - 1730	Management of Burns (Prof Stuart Enoch) <ul style="list-style-type: none">• Assessment• Pathophysiology and principles of management• Inhalation burns• Fluids and Nutrition• Indications for referral
1730 – 1745	Rhabdomyolysis (Prof Stuart Enoch)
1745 - 1845	OSCE topics (Prof Stuart Enoch) <ul style="list-style-type: none">• Surgical Critical Care• Calcium Metabolism• Graphs• Neurophysiology• Spinal Cord Lesions
1845	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 Mike Argent, MBBS, FRCA

Advanced Training Fellow and Senior Registrar in Critical Care

University Hospital of Wales, Cardiff

Dr Gareth Scholey, MRCP, FRCA

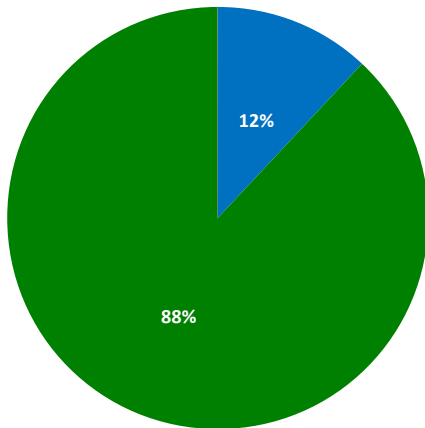
Consultant in Intensive Care Medicine

Adult Critical Care

University Hospital of Wales, Cardiff

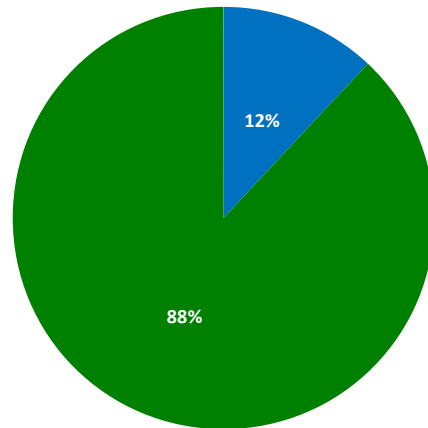
Overall Teaching Feedback

How was the content of the course?



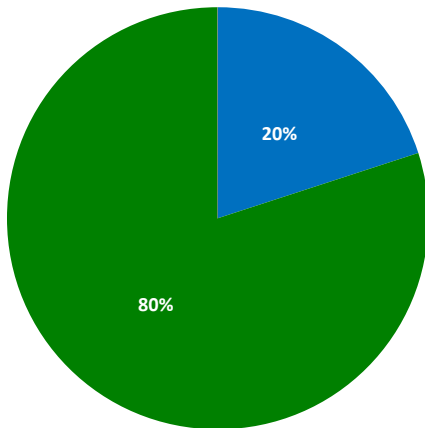
■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

How was the clarity of presentations?



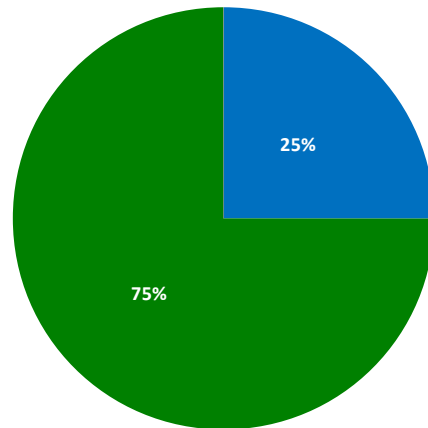
■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

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



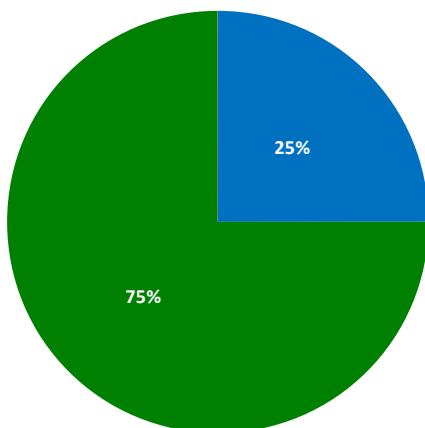
■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

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



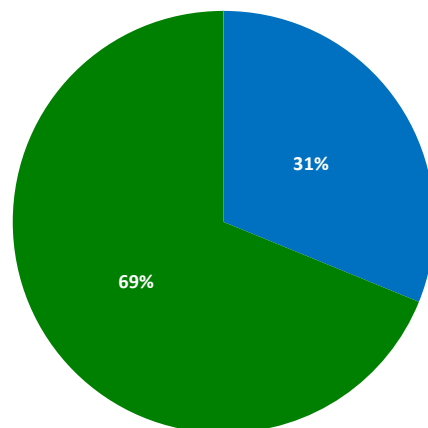
■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

Homeostasis, Feedback Loops



■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

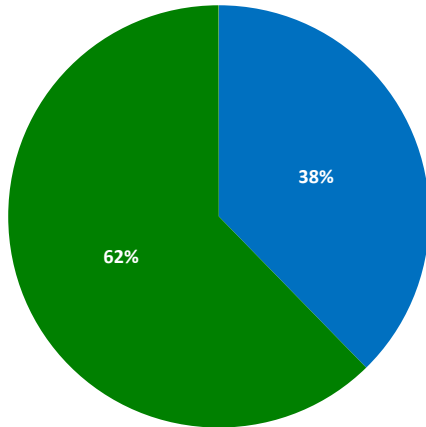
Applied Acid-Base Balance



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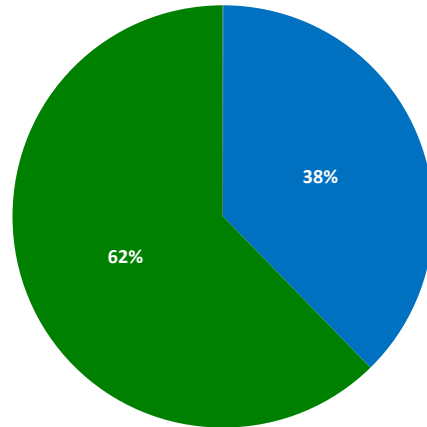
Overall Teaching Feedback

Sepsis



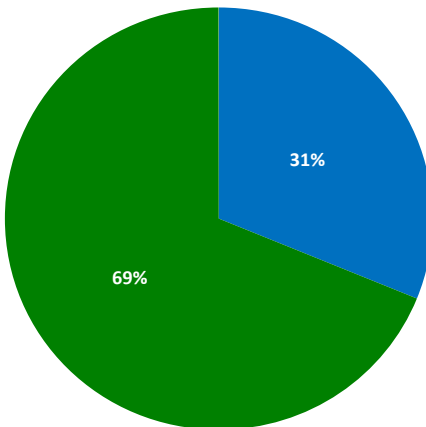
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Septic Shock



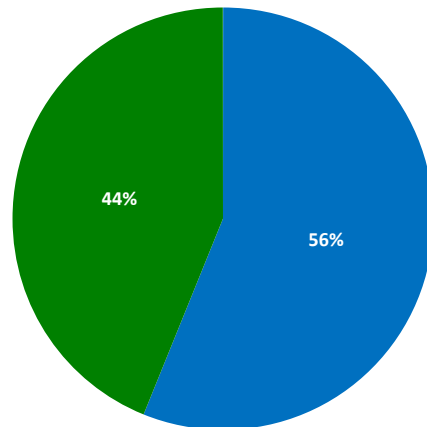
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Normal Ventilatory Cycle



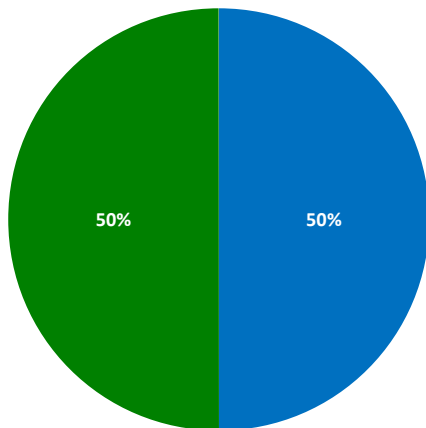
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Controls of Ventilation



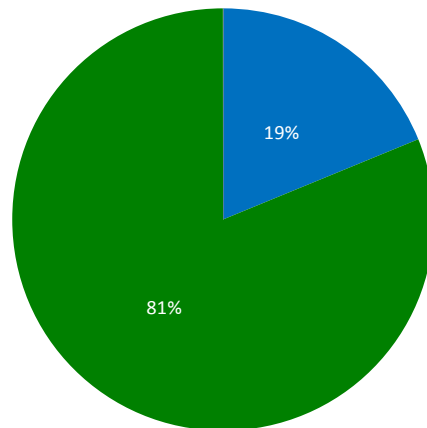
■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

Causes and Management of Post-operative Respiratory Failure



■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

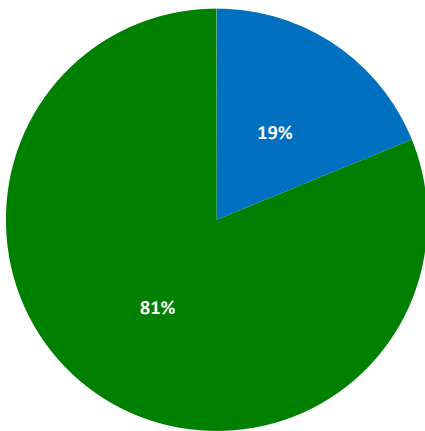
Indications for Ventilatory Support and Weaning Off Ventilator



■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

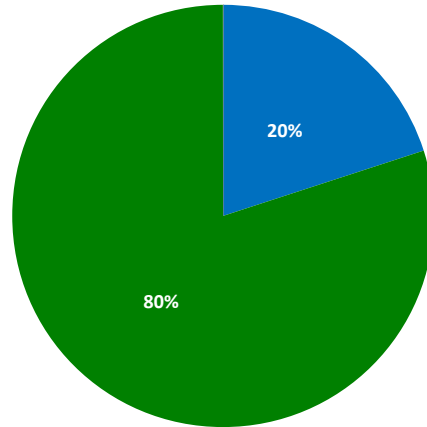
Overall Teaching Feedback

Intermittent Positive Pressure Ventilation



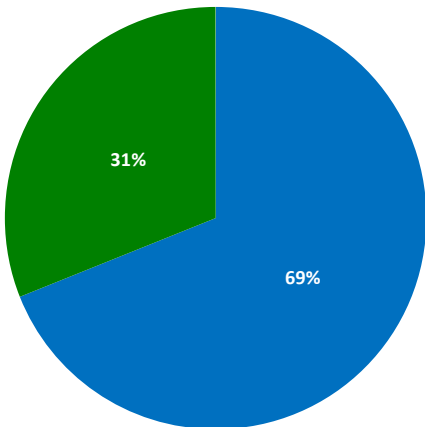
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Acute Respiratory Distress Syndrome



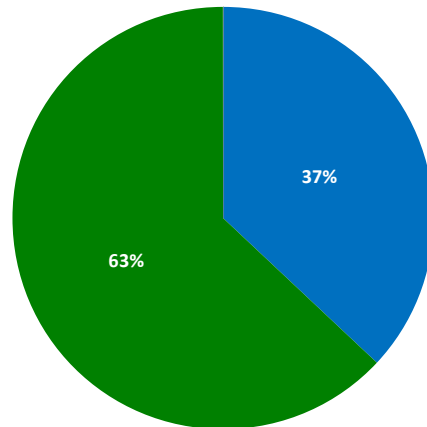
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Pathophysiology and Principles of Management in Burns



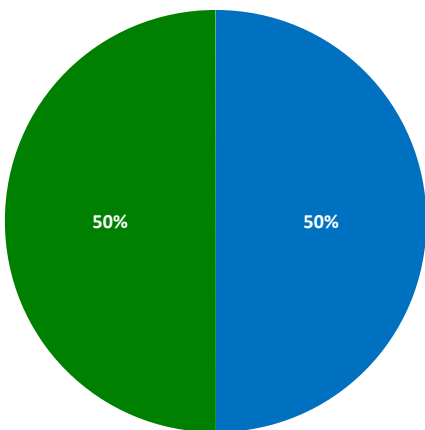
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Inhalation Burns



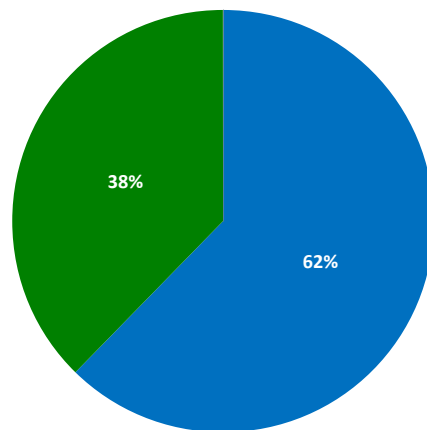
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Fluids and Nutrition in Burns



■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

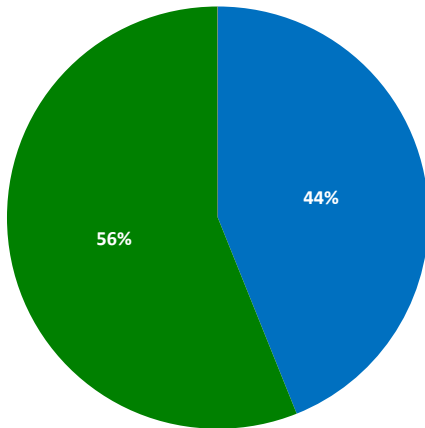
Indications for Referral in Burns



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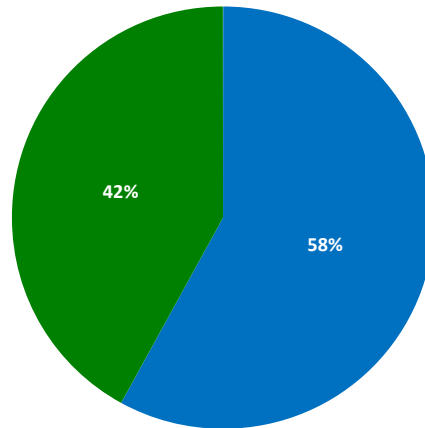
Overall Teaching Feedback

Principles of Management of femur



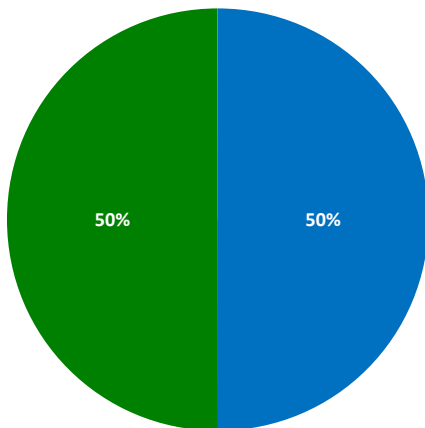
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Long Bone Fractures



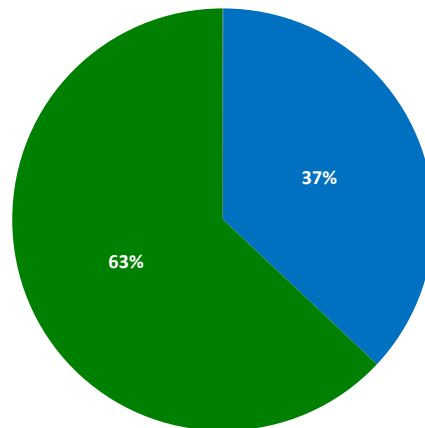
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Compartment Syndrome



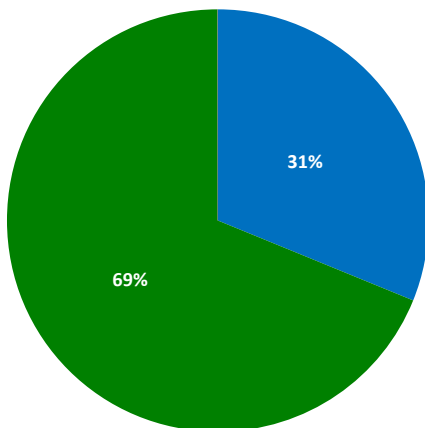
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Pelvic and Polytrauma



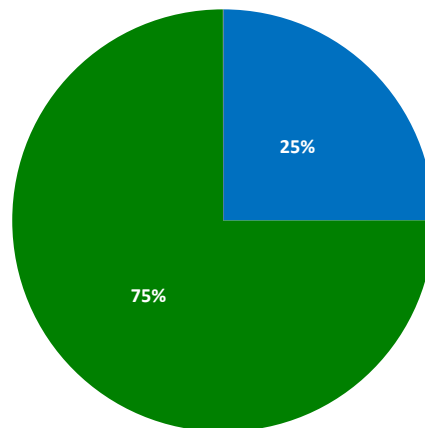
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Bleeding



■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

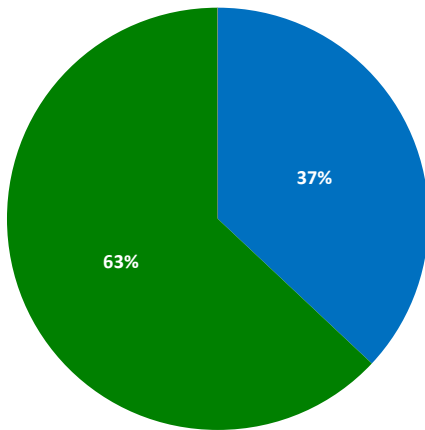
Coagulation/Anti-coagulation



■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

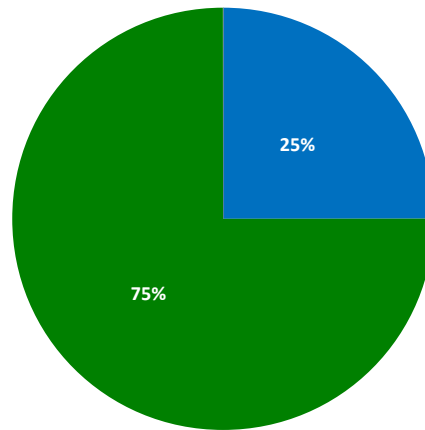
Overall Teaching Feedback

Resuscitation



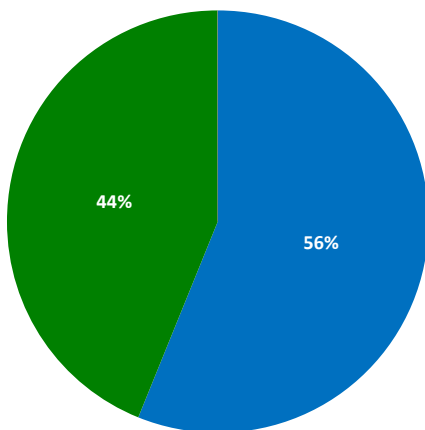
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Temperature Regulation



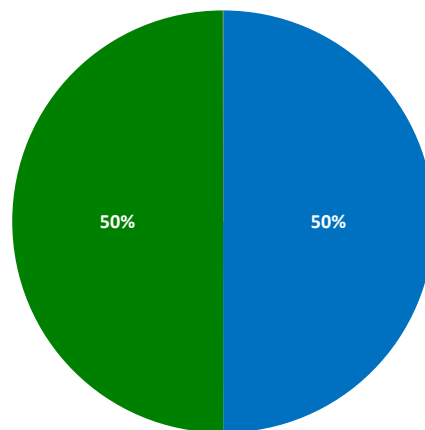
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Hypothermia



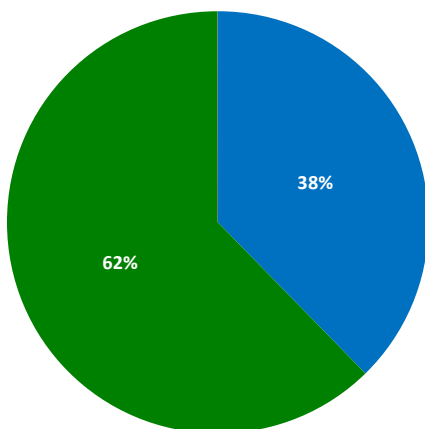
■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

Calcium metabolism



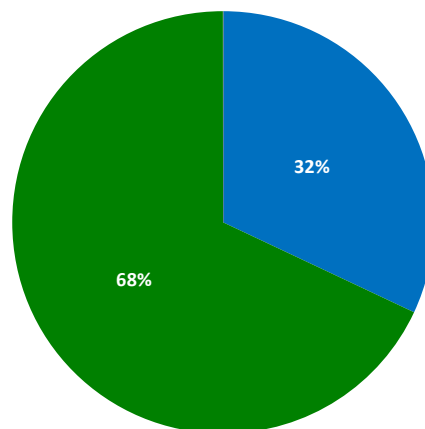
■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

Basic Renal Physiology



■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

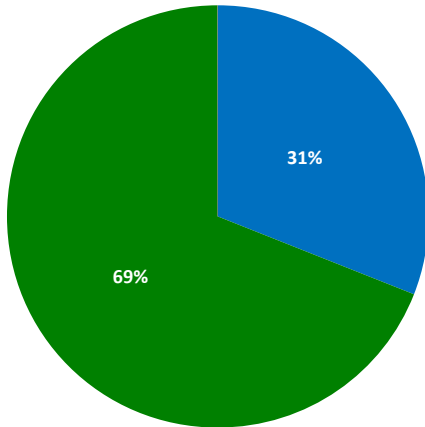
Types and Management of Renal Failure



■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

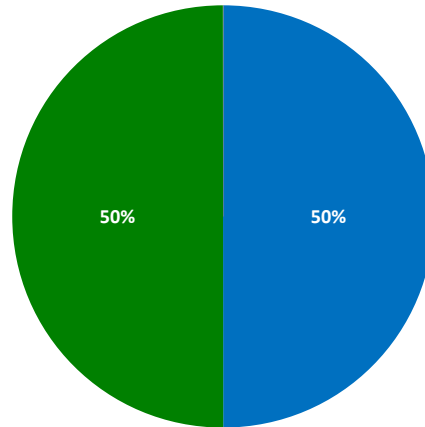
Overall Teaching Feedback

Principles of Epidural Anaesthesia/Assessment; Pain pathways



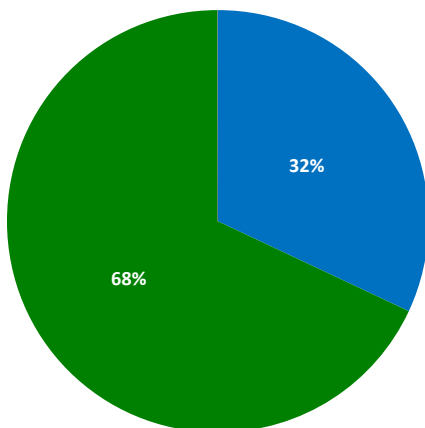
■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

Rhabdomyolysis



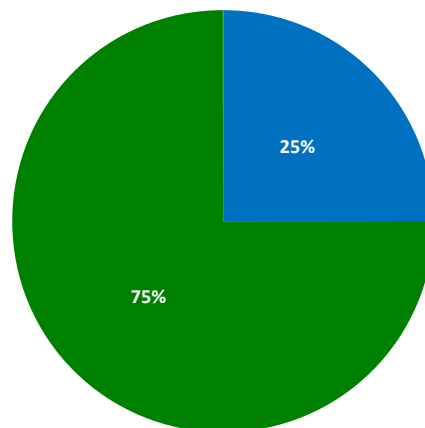
■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

Cardiac Physiology



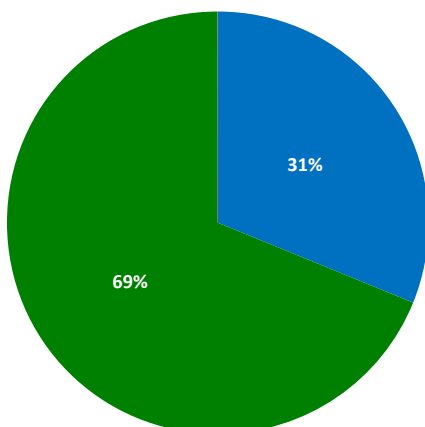
■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

ECGs and Pre-Op Assessment



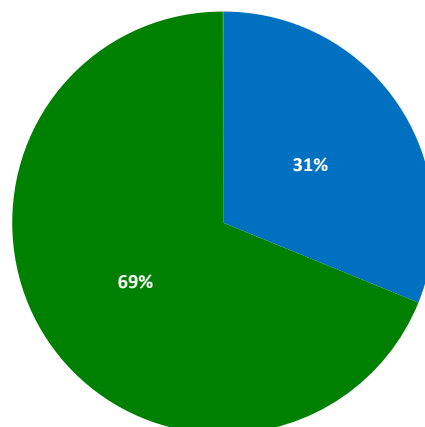
■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

Inotropes



■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

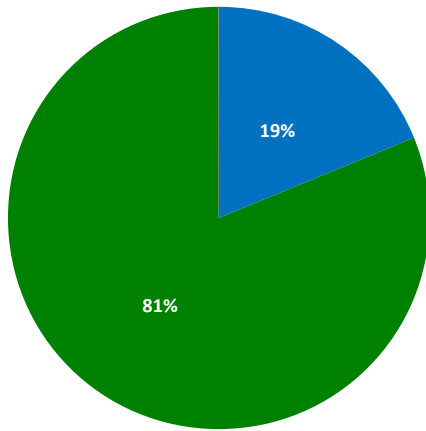
Spinal Cord Lesions



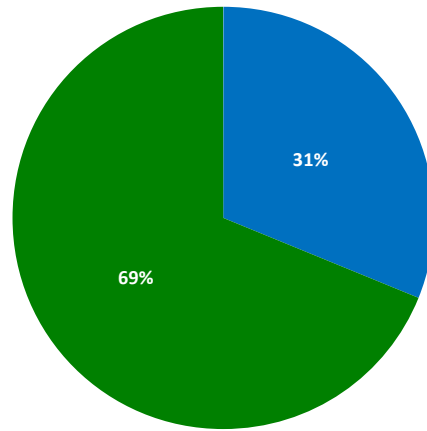
■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

Overall Teaching Feedback

Autonomic Nervous System

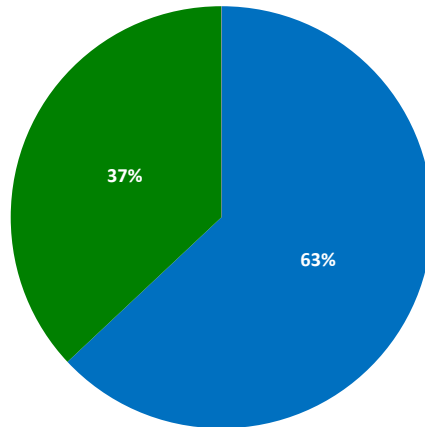


Would you recommend this course to a friend?



■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor ■ 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

Individual Comments

Anatomy was extremely useful.

MP
Salford Royal, Salford

Good.

KR
Altnagelvin Area Hospital, Londonderry

Very good.

DN
Peebles Hospital. British Virgin Island

Relevant teaching course according to MRCS exam topics. Highly recommend it.

JW
Leicester Royal Infirmary, Leicester



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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, 6th to 10th August 2018
- **International Academic and Research Conference**
Manchester, 11th August 2018
- **World University Anatomy Challenge**
Manchester, 10th August 2018

Publications



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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
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