The COMPLETE Revision Guide for the MRCEM EXAM

2ND EDITION
Introduction

The MRCEM examination is a notoriously difficult examination that is an essential step along the path to a career in Emergency Medicine in the United Kingdom. It is also increasingly being used as a benchmark of excellence in Emergency Medicine in many other countries and there are now international centres in India, Egypt and Singapore.

We hope that this revision guide will help candidates with their revision and facilitate their goal of passing this challenging examination.

Good luck with your exam preparation!
Background and History

The MRCEM exam is a relatively new entity and as a consequence does not have the large quantity of preparation material available for candidates as other examinations do, such as the MRCP and MRCS.

We hope that our website (www.mrcemexamprep.co.uk) addresses this shortfall by providing a high quality revision aid as a means of practicing and preparing for the examination.

Prior to 2003 entry into higher specialist training for Emergency Medicine required the passing of one of the relevant membership examinations from complementary specialties, which included the MRCS, MRCP(UK), FRCA or the specific A&E membership examination the MRCSEd(A&E).

In 2003 the then Faculty of Accident and Emergency Medicine (FAEM) introduced a new 3-part examination that was specific to the specialty. This examination, the MFAEM, formed the basis for what has now become the MRCEM examination. Over the years that have followed FAEM has grown and become the College of Emergency Medicine (CEM) and the examination has developed into a challenging and well respected higher professional qualification.

In January 2015 the College announced that it had been granted the title ‘Royal’ and from that point forwards will be known as the ‘Royal College of Emergency Medicine’ and in August 2015 the exam officially changed its title again to the MRCEM exam.
What is the MRCEM Exam?

Since 2009 the MRCEM examination has been essential for entry into ST4 training posts in Emergency Medicine in the UK. It is currently a three part process with Part A consisting of multiple choice questions (MCQs), Part B short answer questions (SAQs) and Part C an objective structured clinical examination (OSCE).

There are currently two sittings per year of each part of the exam, with spring and autumn diets. The Part A examination is sat as a single exam, whereas the Part B and C examinations are sat as at the same sitting with successful Part B candidates sitting the Part C exam a few weeks after receiving their results.

Information on the dates and fees and how to apply for these exams can be found on the RCEM website here:

http://www.rcem.ac.uk/Training-Exams/Exams/Dates%20and%20Fees
The MRCEM Part A Exam

The Part A exam question format

The questions in the MRCEM Part A exam are multiple-choice questions (MCQs). These are an excellent means of testing direct factual recall and can also be used to test for recall of more obscure knowledge.

The MCQs in the Part A exam consist of a stem, which is a statement or a phrase, followed by four options. An example of a typical part A MCQ is shown below:

Question:
Regarding the femoral nerve:
A. It lies lateral to the femoral artery
B. Its nerve roots are L1 and L2
C. It overlies the psoas major muscle
D. Its anterior division gives off then branch to vastus medialis

Answer:
A. True. The femoral nerve lies lateral to the femoral artery and vein.
B. False. The nerve roots of the femoral nerve are L2 to L4
C. False. The femoral nerve is formed in the abdomen within the psoas major muscle and descends through the fibres of it emerging at the lower part of its lateral border. It overlies the iliacus muscle.
D. False. The anterior division of the femoral nerve gives off the anterior cutaneous branches and the branches to pectineus and sartorius. The posterior division gives off branches to
rectus femoris, vastus lateralis, vastus medialis and vastus intermedius.

These questions are ‘positively’ marked, which means it is vitally important to answer all of the questions, as you will not be penalized for incorrect answers. In a positively marked MCQ guesswork alone should result in a score of 50%. The pass mark is usually set around the 70% mark, which means that you need to know the answer to roughly half of the questions and guess 50% of the remaining questions correctly to comfortably pass.

If time allows, review the questions and answers again after finishing the exam, as it is possible that you may have misread some questions on the first attempt. When you are unsure of the answer it is usually best to stick to your first instinct and not be tempted to change the answer on re-reading.

**The Part A exam breakdown**

The MRCEM Part A paper is two hours long and comprises 50 MCQ stems.
There is a very heavy weighting towards basic science in the examination with the following areas tested in the following proportions:

- Anatomy (10 questions)
- Physiology (10 questions)
- Clinical scenarios (5 questions)
- Biochemistry (5 questions)
- Microbiology (5 questions)
- Pharmacology (5 questions)
- Haematology (5 questions)
- Pathology (3 questions)
• Statistics (2 questions)

Preparing for the Part A exam

To get a good grip of the basic sciences takes a great deal of time and candidates should start preparing at least 6 months before the examination. A robust textbook covering each of the areas should be used and this should form the basis of your initial revision. Some suggested texts and a thorough summary of the Basic Sciences Curriculum can be found on the Royal College of Emergency Medicine website here:

http://www.rcem.ac.uk/Training-Exams/Curriculum/Curriculum%20from%20August%202010
Candidates often underestimate the amount of revision required to prepare for the MRCEM Part A examination and it is a good idea to start at least 6 months before the exam.

Once you have started to get to grip with basics of each topic it is a good idea to start to supplement your learning with regular MCQ practice using resources such as our website (www.mrcemexamprep.co.uk) and any of the various MCQ books available.
Try to isolate areas of weakness and concentrate on these areas and spend less time on your areas of strength. Many candidates struggle with the vast size of the anatomy syllabus and often need to spend longer on that. It is a good idea to use your performance in MCQs as a benchmark of your knowledge base in each area of the curriculum and use this as a means to support your revision planning. By the time each of you has qualified as a doctor you will already have sat numerous exams and developed your own methods for preparing. It is a good idea to keep using the revision methods that you are used to when preparing for this exam. It is very important not to underestimate the amount of work that is required and to spend plenty of time preparing!
Many candidates struggle with the vast size of the anatomy syllabus in the MRCEM Part A examination.
**Essential revision topic checklist for the Part A exam**

This is not designed to be an exhaustive list but rather a list of high-yield topics that have appeared in previous exams and should form an essential part of your revision:

**ANATOMY**

- Surface anatomy
- Vertebral levels
- Myotomes and dermatomes
- Brachial plexus
- Rotator cuff muscles
- Shoulder joint
- Upper limb arteries
- Median, ulnar and radial nerves
- Upper limb nerve palsies
- Anatomical snuffbox
- Muscles of the hand
- Great saphenous vein
- Sciatic nerve
- Tibial nerve
- Femoral artery, vein and nerve
- Hip joint
- Popliteal fossa and knee
- Ankle and tarsal joints
- Lower limb nerve palsies
- Lumbar and sacral plexuses
- Diaphragm
- Thoracic inlet
- Heart and pericardium
- Pleura and lungs
- Gastrointestinal tract
- Liver and biliary tract
○ Pancreas and spleen
○ Kidneys, ureters and bladder
○ The inguinal region
○ Testis, epididymis and spermatic cord
○ Genitourinary tract
○ Triangles of the neck
○ Root of the neck
○ Facial nerve and facial region
○ Scalp
○ Orbit and the eye
○ Vertebral column
○ Cerebral hemispheres
○ Cerebral blood supply
○ Brainstem and cerebellum
○ Cranial nerve lesions
○ Spinal cord anatomy

**PHYSIOLOGY**

○ Basic cellular pathology
○ Cell structure and function
○ Neurological action potential
○ Muscle physiology
○ Lung volumes and pressures
○ Gas transport
○ Control of respiration
○ Ventilation-perfusion relationship
○ Cardiac cycle and cardiac output
○ Peripheral vascular physiology
○ Gastrointestinal physiology
○ Glomerular filtration and renal physiology
○ Adrenal glands
○ Exocrine pancreas
○ Thyroid physiology
CLINICAL SCENARIOS

- ALS, APLS and ATLS scenarios
- Common ED scoring systems
- Acute coronary syndromes
- Head injury and basal skull fracture
- Headache and subarachnoid haemorrhage
- Status epilepticus
- Stroke and TIA
- Common rashes (erythema multiforme)
- Diabetic ketoacidosis
- Thyrotoxic crisis
- Delerium
- Sepsis and SIRS
- Acute abdominal pain
- Pancreatitis
- Renal colic
- Ectopic pregnancy
- Airway management
- Epistaxis
- Burns
- Neck trauma
- Aortic dissection
- Abdominal aortic aneurysms
- Upper and lower gastrointestinal bleeding
- Testicular torsion and epididymitis
- Poisons and antidotes

BIOCHEMISTRY

- Human stress response
- Acid-base balance
- Renin-angiotensin system
- Potassium balance
- Calcium balance
Glycolysis and gluconeogenesis
Lactate and lactic acidosis
Cortisol and Cushing’s disease
Addison’s disease
Conn’s syndrome
Liver function tests
Thiamine and vitamin deficiencies
Anion gap

MICROBIOLOGY
Natural and innate immunity
Infection control
Vaccines and vaccination schedule
Streptococci and Staphylococci
Tuberculosis
Neisseria
Gram-negative gastrointestinal disease
Legionella
Pseudomonas
Chlamydia
Herpes simplex and zoster
Hepatitis
HIV
Measles, mumps and rubella
Respiratory viruses
Gastrointestinal viruses
Yeast and fungi
Worms
Malaria

PHARMACOLOGY
Ulcer-healing drugs
Diuretics
○ Anti-arrhythmics
○ Anti-hypertensives
○ Sympathomimetics
○ Drugs used in cardiac arrest
○ Antiplatelets and anticoagulants
○ Myocardial infarction and thrombolysis
○ Bronchodilators
○ Antipsychotics and antidepressants
○ Anti-emetics
○ Analgesics
○ Antibiotics
○ Insulin and anti-diabetic drugs
○ Corticosteroids
○ Fluids and electrolytes
○ Anaesthesia and sedation

**HAEMATOLOGY**

○ Iron studies and iron-deficiency anaemia
○ Vitamin B12 and folate
○ Pernicious anaemia
○ Sickle cell disease
○ Thalassaemias
○ Coagulation tests
○ Thrombophilias
○ Haemophilia
○ Leukaemia and lymphoma
○ Multiple myeloma
○ Disseminated intravascular coagulation

**PATHOLOGY**

○ Inflammatory response and inflammatory markers
○ Anaphylaxis and allergy
○ The immune response
○ Wound healing
○ Autoimmune disease and autoantibodies

STATISTICS
○ Types of study
○ Epidemiological measures
○ Sample distribution
○ Variance and standard deviation
○ Confidence intervals
○ Parametric and non-parametric tests
○ P values and null hypothesis
○ Type I and type II errors
○ Risk and odds
○ Screening tests
The MRCEM Part B Exam

The Part B exam question format

The questions in the MRCEM Part B exam are short answer questions (SAQs). SAQs require the ability to formulate an answer based on the information given in the question without the advantage of having options to choose from. They usually take the form of a clinical scenario followed by a list of questions that require knowledge about the subject matter presented.

The answers to the questions are usually agreed upon by a board of examiners before the examination. Additional answers encountered in the marking process can be added to the marking scheme if they hadn’t been thought of initially and they are agreed to be appropriate by the examining board. For this reason they are an excellent means of assessing candidates but require a great deal of input.

An example of a typical MRCEM Part B SAQ is shown below:

Question:

A 65 year-old man presents with a week’s history of palpitations. His past medical history includes a previous stroke 2 years ago, hypertension and type 2 diabetes. His current medications are ramipril, metformin and aspirin. He has no known drug allergies and is a non-smoker. His initial observations are: HR Approximately 130 bpm (irregular), BP 145/90, temperature 36.9°C. His rhythm strip is shown below:
(a) What is the diagnosis? (1)
- Atrial fibrillation

(b) List 4 potential causes of this condition. (2)
- Hypertension
- Pulmonary embolism
- Coronary artery disease
- Other primary heart disease e.g. HOCM, congenital etc
- Hyperthyroidism
- Alcohol
- Drug abuse e.g. cocaine
- Sepsis / infection

(c) Name an oral medication that could be used as first line treatment for rate-control in this gentleman. (1)
- Beta-blocker e.g. bisoprolol or;
- Calcium channel blocker e.g. diltiazem

(d) List 3 factors that would make a rate-control strategy preferable in his long-term management. (3)
Any three of:
- Age over 65
- Presence of coronary artery disease
- Contraindications to anti-arrhythmic drugs
- Unsuitable to cardioversion e.g. contraindications to anticoagulation or structural heart disease
• Long duration of AF (> 12 months)
• Absence of congestive heart failure

The best way to answer SAQs is with short answers that are to the point and with bullet-pointed lists for the questions that require more information to be presented. By using sentences and paragraphs of information it makes the answers more difficult for the marker to see. Bullet points present the information in a very clear manner and increase your chances of picking up the marks available.

The first part of a SAQ is often the diagnosis, and although often only worth 1 mark, this is clearly a very important part of the question and getting it wrong can mean that all subsequent parts of the question will be incorrect as a consequence. In this question there is a short clinical scenario followed by a rhythm strip that demonstrates that the patient is in atrial fibrillation. The rest of the question asks about the causes and first-line treatment of this condition. The last part of the question is usually the most challenging part and requires either higher knowledge or understanding of a national guideline or protocol.

SAQs are an easy way to test data interpretation and also the understanding of scoring systems and key guidelines. It is therefore advisable to look through the syllabus and see what sorts of investigations, guidelines and scoring systems are most likely to come up, and ensure that you have a detailed understanding of them.

The Part B exam breakdown

The MRCEM Part B paper is two hours long and usually comprises 16 SAQs. Each question is generally allocated 10 points. The exact marking scheme is closely guarded but each question is marked as being below, equal or above the median in each sitting. A pass or fail
will then be awarded depending on the median for the exam and how your performance compares to that of the other candidates on the day.

The Part B examination is mostly clinical and tests topics that are commonly encountered in the Emergency Department setting. The areas tested include:

- General medicine
- Toxicology
- Trauma & Orthopaedics
- Paediatrics
- Surgery
- Anaesthesia
- Ophthalmology
- ENT
- Maxillofacial surgery
- Obstetrics & Gynaecology
- Psychiatry

**Preparing for the Part B exam**

Although the Part B does not have the daunting volume of knowledge required for the Part A it is still a difficult and challenging examination. Many of the questions take on the form of data interpretation, with questions based around blood tests, an X-ray or an ECG. Candidates should start preparing at least 6 months before the examination.
Many questions in the MRCEM Part B examination take the form of data interpretation questions, such as X-rays (image sourced from [www.wikipedia.org](http://www.wikipedia.org)).

The Oxford Handbook of Emergency Medicine is an excellent resource for the Part B examination and once purchased will probably remain at your side for much of the years that follow during your Emergency Medicine training.

Other frequently tested aspects of the Part B examination are scoring systems and clinical guidelines. It is a good idea to familiarise yourself with the various scoring systems used in the Emergency Department setting, such as CURB-65 for pneumonia and ABCD-2 for TIA assessment. You should also attempt to read relevant NICE and SIGN guidelines.
The Part B examination is very closely matched to your every day work in the Emergency Department so it is a good idea to read around interesting and relevant cases that you come across in day-to-day practice as this will help you to achieve a better understanding of current practice and guidelines.

**Essential revision topic checklist for the Part B exam**

As with the list provided for the Part A exam, this is not designed to be exhaustive, but rather a list of high-yield topics that have appeared in previous exams and should form an essential part of your revision:

**GENERAL MEDICINE**

- ALS scenarios
- Anaphlaxis and angioedema
- Severe sepsis and septic shock
- Acute coronary syndromes and MI
- Pericarditis and cardiac tamponade
- Bradyarrhythmias
- Tachyarrhythmias
- Hypertensive crisis
- Arterial blood gas interpretation
- Acute cardiogenic pulmonary oedema
- Acute asthma
- Exacerbation of COPD
- Pneumonia and CURB-65 score
- Spontaneous pneumothorax
- DVT and pulmonary embolus
- Upper GI bleeding
- Traveller’s diarrhoea
- Alcoholic hepatitis and decompensation
- Headache
Subarachnoid haemorrhage
Meningococcal septicaemia
Transient loss of consciousness
TIA and stroke
Status epilepticus
Hypoglycaemia
Hyperglycaemia crisis
Thyrotoxic crisis
Addisonian crisis
Hyperkalaemia
Acute renal failure and dialysis
Coagulation disorders
Sickle cell crises
Erythema multiforme and associations
Erythema nodosum and associations
UTI in the elderly
Parkinson’s disease
Blood transfusion and transfusion reactions
Viral hepatitis
HIV
Hypothermia
Pyrexia of unknown origin
Malaria and tropical diseases
Cellulitis

TOXICOLOGY

Indications for use of activated charcoal
Specific antidotes for poisons
Decontamination of patients and chemical incidents
Carbon monoxide poisoning
Paracetamol poisoning
Opioid poisoning
Salicylate poisoning
- TCA and SSRI poisoning
- Benzodiazepine poisoning
- Beta-blocker poisoning
- Calcium-channel blocker
- Digoxin toxicity
- Methanol poisoning
- Ethylene glycol poisoning
- Organophosphate poisoning
- Cyanide poisoning
- Cocaine use and associated MI
- Ecstasy use and complications

**TRAUMA & ORTHOPAEDICS**
- ATLS scenarios
- Chest injury
- Tension pneumothorax
- Blunt abdominal trauma
- Pelvic injuries
- FAST scanning
- Head injury and indications for CT head
- Basal skull fracture
- Spinal cord injury
- Burns management
- Electrocution
- Wound management
- Bite injuries including ‘punch bites’
- Tetanus prophylaxis
- Needlestick injuries
- Shoulder dislocation
- Distal radius fractures
- Hip dislocation
- Femoral shaft fractures
- Knee injuries
○ Ankle sprains and fractures
○ Low back pain
○ Eponymous fractures
○ Acute arthritis
○ Osteomyelitis and gas gangrene
○ Major incident planning
○ Blast injuries
○ Traumatic amputation

**PAEDIATRICS**

○ APLS scenarios
○ Paediatric trauma
○ Venous and intraosseous access in children
○ Sudden infant death syndrome and ALTE
○ Purpuric rashes in children
○ Bronchiolitis
○ Croup and epiglottitis
○ Asthma in children
○ Febrile convulsions
○ Kawasaki disease
○ Paediatric exanthems
○ UTI in children
○ Paediatric diarrhoea and fluid balance
○ Irritable hip
○ Slipped upper femoral epiphysis
○ Perthe’s disease
○ Osteochondritis in children
○ Non-accidental injury
○ The Victoria Climbie report
○ Salter-Harris fracture classification
○ Radial head subluxation (‘Pulled elbow’)
○ Elbow ossification times
SURGERY
- Acute abdominal pain
- Abdominal aortic aneurysm
- Acute appendicitis
- Acute pancreatitis
- Intestinal obstruction
- Mesenteric infarction
- Renal colic
- Urinary obstruction
- Testicular and penile problems
- Abscesses
- Acute limb ischaemia

ANAESTHESIA
- Local anaesthesia
- Regional nerve blocks
- Intravenous regional anaesthesia (Bier’s block)
- Local anaesthetic toxicity
- ED sedation policies
- Anaesthetic drugs
- Rapid sequence induction
- Basic airway management
- Airway assessment and Mallampati scores
- Difficult intubation

OPHTHALMOLOGY
- The red eye
- Eye infections
- Sudden loss of vision
- Eye trauma
- Orbital ‘blow-out’ fracture
- Ophthalmology foreign bodies
Acid and alkali injury to eyes
- Corneal abrasions
- Acute glaucoma
- Neonatal conjunctivitis
- Ophthalmic shingles

**ENT & MAXILLOFACIAL SURGERY**
- ENT foreign bodies
- Epistaxis
- Otitis media
- Otitis externa
- Tonsillitis and quinsy
- Bell’s palsy
- Salivary gland problems
- Facial trauma
- Middle third facial fractures (Le Fort classification)
- Mandibular fractures
- Penetrating neck trauma
- Dental emergencies
- Tooth avulsion

**OBSTETRICS & GYNAECOLOGY**
- Vaginal discharge
- Vaginal bleeding
- Emergency contraception
- Pregnancy and emergency delivery
- Bleeding in early pregnancy
- Abdominal pain in pregnancy
- Ectopic pregnancy
- Hyperemesis gravidarum
- Chickenpox and pregnancy
- Cardiac arrest in pregnancy
- Trauma in pregnancy
- Rhesus disease
- Post-partum problems
- Sexual assault
- Sexually transmitted diseases

**PSYCHIATRY**
- Suicide and parasuicide
- Depression
- Acute psychosis
- Schizophrenia
- Mania and bipolar affective disorder
- Violent and abusive patients
- Mental health act and sections
- Complications of psychiatric drugs
- Alcohol abuse
The MRCEM Part C Exam

The Part C exam format

The Part C examination is an objective structured clinical examination (OSCE). It is linked with the Part B examination and can only be sat by candidates that have been successful in that part of the exam. It is usually sat over a period of a week or so a few weeks after the results of the part B exam have been published. The exam is designed to test both the theoretical knowledge and clinical skills of emergency medicine doctors. The OSCE stations test a wide variety of skills including history taking, physical examination, communication skills and the ability to perform practical procedures.

The Part C exam usually consists of a circuit of 18 stations, each of which is 7 minutes long. There are usually two ‘double stations’, which are 14 minutes longs and involve ALS, APLS or ATLS style scenarios. Each station will test a different skill or competence and is usually invigilated and marked by a different examiner. Candidates rotate around all of the stations sequentially so that each candidate will have had a standardised experience.

It is very important to make a good impression upon both the examiner and the patient in MRCEM Part C OSCE stations as in addition to the standard marking scheme there are also ‘global score’ marks awarded. The examiner and patient can each award up to 5 marks each to the candidate at every station and these marks can make the difference between a pass and a fail when performance has been borderline.
Broadly speaking, apart from the ‘double stations’, there are 5 types of station that are commonly encountered in the Part C exam:

1. History taking stations  
2. Clinical examination stations  
3. Communication skills stations  
4. Practical skills stations  
5. Data interpretation stations  
6. Teaching stations

**Example OSCE station:**

**CLINICAL EXAMINATION STATION – Cardiovascular examination**

**Information for the candidate:**

Ethel Jones is a 70-year-old woman that has been experiencing increasing shortness of breath over the past few weeks. Please perform an examination of her cardiovascular system and then present your findings to the examiner.

**Information for the patient:**

During this station the candidate will perform an examination of your heart and chest. You will be positioned lying flat on the couch, but the candidate may ask you to sit up or re-position you.

You should not answer any questions from the candidate about your history or diagnosis. If the candidate requires any further information during this station it will be provided by the examiner.
Information for the examiner:

In this station you should assess whether the candidate is competent to perform a thorough and logical cardiovascular examination, generate a differential diagnosis and answer a few brief questions about their differential diagnosis.

At the start of the station you should instruct the candidate to ‘perform a cardiovascular examination on the patient, establish a differential diagnosis and outline a brief management plan to include any further examination or investigations.’

The patient in this particular station has an ejection systolic murmur that radiates to the carotids and is consistent with a diagnosis of aortic stenosis. Please examine the patient before the exam starts to ensure that you are familiar with the clinical signs present in this patient.

An appropriate differential diagnosis would be:

- Aortic stenosis
- Aortic sclerosis

Further investigations and management should include:

- ECG (looking for signs of LVH)
- Chest X-ray (looking for post-stenotic aortic dilatation)
- Echocardiography (to confirm the diagnosis)
- Patient should be referred for a specialist cardiological opinion
### Marking sheet:

<table>
<thead>
<tr>
<th>Achieved</th>
<th>Not achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washes hands / hygiene measures</td>
<td></td>
</tr>
<tr>
<td>Appropriate introduction to patient</td>
<td></td>
</tr>
<tr>
<td>Obtains consent to perform examination</td>
<td></td>
</tr>
<tr>
<td>Sits patient up to 45-degree angle</td>
<td></td>
</tr>
<tr>
<td>Appropriately exposes chest</td>
<td></td>
</tr>
<tr>
<td>Inspects from the end of the bed</td>
<td></td>
</tr>
<tr>
<td>Examines both hands</td>
<td></td>
</tr>
<tr>
<td>Feels radial pulse for rate and character</td>
<td></td>
</tr>
<tr>
<td>Asks to check blood pressure</td>
<td></td>
</tr>
<tr>
<td>Feels brachial and carotid pulse</td>
<td></td>
</tr>
<tr>
<td>Inspects neck and assesses JVP</td>
<td></td>
</tr>
<tr>
<td>Inspects chest, looking for scars etc</td>
<td></td>
</tr>
<tr>
<td>Palpates apex beat</td>
<td></td>
</tr>
<tr>
<td>Checks for heaves and thrills</td>
<td></td>
</tr>
<tr>
<td>Auscultates all 4 cardiac areas</td>
<td></td>
</tr>
<tr>
<td>Auscultates apex in left lateral position</td>
<td></td>
</tr>
<tr>
<td>Auscultates aortic area sitting forwards</td>
<td></td>
</tr>
<tr>
<td>Auscultates axilla for MR radiation</td>
<td></td>
</tr>
<tr>
<td>Auscultates neck for AS radiation (present)</td>
<td></td>
</tr>
<tr>
<td>Auscultates lung bases for crepitations</td>
<td></td>
</tr>
<tr>
<td>Palpates liver for pulsation</td>
<td></td>
</tr>
<tr>
<td>Feels lower limb pulses</td>
<td></td>
</tr>
<tr>
<td>Checks for peripheral oedema</td>
<td></td>
</tr>
<tr>
<td>Presents a clear summary</td>
<td></td>
</tr>
<tr>
<td>Correct diagnosis of aortic stenosis</td>
<td></td>
</tr>
<tr>
<td>Discusses clear management plan</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL SCORE:** / 26
Preparing for the Part C exam

Preparing for the Part C exam is a very different process from preparing for the Part A and B exams. There are a wide variety of resources available explaining the ideal way to take histories, undertake systems examinations and perform the specific technical skills that are commonly encountered in OSCEs. Some books and revision courses also contain model marking schemes and these are especially helpful. Marks will be awarded for each step in the particular task that you have been asked to perform, and knowing what the marks are awarded for makes it far easier to pass the station. It is essential to learn the correct methodology for each of these and practice each of them repetitively until they are second nature to you. The importance of this type of repetitive practice cannot be emphasized enough.

*Repetitive practice should form an essential part of your Part C preparation.*
Practice in small groups with your friends and colleagues, and take it in turns to role-play the candidate, patient and examiner. It is very helpful to get used to being the examiner as you can gain a useful insight into the sorts of mistakes that can easily be avoided and see where easy marks can be picked up by monitoring and marking the performance of your colleagues. When practicing in this manner, try to simulate the feel of the examination as closely as possible. Pay careful attention to time keeping as it is very common for candidates to run out of time, particularly in history taking and communication skills type stations. If possible, also try to get experienced senior clinicians, preferably with some experience of marking or invigilating OSCEs, to watch you. Many useful tips can be picked up in this way.
Some OSCEs will have life support or resuscitation type stations that will require the demonstration of advance life support, advanced pediatric life support or advance trauma life support skills. Try to get hold of the hospital resuscitation officer or a senior Emergency Room doctor to help you with practicing these types of scenarios. Some hospitals have dedicated simulation labs where these skills can be practiced in circumstances that closely resemble real life and these provide an excellent environment in which to practice and hone these types of skills.

When practicing with your friends and colleagues, ask them to not be overly friendly and even ask them if they can harass you a little and ask difficult or awkward questions. Also be very critical and analytical of each other’s performance. By practicing all of the skills that you require for your OSCE in this manner you will develop a familiarity with the kind of stress that these examinations generate and this familiarity will help you enormously on the day of the exam when your nerves are at their peak.

**Essential revision topic checklist for the Part C exam**

The following is a list of the sort of stations that you might expect to encounter in the Part C exam. This list is not exhaustive, but contains a selection of the most commonly encountered stations:

**HISTORY TAKING STATIONS**

- Chest pain
- Shortness of breath
- Abdominal pain
- Headache
- Transient ischaemic attack
- Haematuria
○ Hyperthyroidism
○ Unexplained bruising
○ ‘Tired all the time’
○ Leg swelling and DVT
○ Depression
○ Mania
○ Suicidal ideation
○ Vaginal discharge
○ Bleeding in early pregnancy
○ Fever or diarrhoea in a returning traveler
○ Back pain and ‘red-flags’
○ Limping child

CLINICAL EXAMINATION STATIONS
○ Cardiovascular examination
○ Respiratory examination
○ Abdominal examination
○ Shoulder examination
○ Elbow examination
○ Hand examination
○ Hip examination
○ Knee examination
○ Foot and ankle examination
○ Lumbar spine examination
○ Cranial nerve examination
○ Upper limb neurological examination
○ Lower limb neurological examination
○ Facial and scalp examination (post assault)
○ Eye examination and use of slit lamp
○ Examination of a rash
○ Mental state examination
COMMUNICATION SKILLS STATIONS

- Breaking bad news
- Making a difficult referral
- Angry patients and relatives
- Conflict resolution
- Dealing with complaints
- Explaining febrile convulsions to parent
- Needlestick injuries
- Managing missed fractures
- Obtaining consent
- Competence in children
- Management of clinical decision unit
- Emergency contraception
- Managing drug seeking behaviour
- Major incident preparation

PRACTICAL SKILLS STATIONS

- Hand washing
- Basic airway management
- Endotracheal intubation
- Intraosseous needle insertion
- Insertion of central line
- Insertion of arterial line
- Insertion of chest drain
- Pleural aspiration
- External pacing
- Application of plaster cast
- Application of Thomas splint
- Digital nerve block
- Femoral nerve block
- Wound closure (suturing)
- Urethral catheterisation
- Cervical spine clearance
○ Speculum examination and vaginal foreign body removal
○ Recording an ECG

DATA INTERPRETATION STATIONS
○ Interpreting fluid balance chart
○ Interpreting a chest X-ray
○ Interpreting an abdominal X-ray
○ Interpreting a CT scan of the head
○ Interpreting an ECG
○ Interpreting blood results
○ Interpreting arterial blood gas results

TEACHING STATIONS
○ Teaching ECG interpretation to medical student
○ Teaching chest X-ray interpretation to medical student
○ Teaching ABG interpretation to medical student
○ Teaching basic airway management
○ Teaching how to set up non-invasive ventilation
○ Teaching how to use a slit lamp

‘DOUBLE-STATIONS’
○ ALS scenarios
○ APLS scenarios
○ ATLS scenarios