

Get Through

Final FRCA: MCQs

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Preface

This book is a culmination of years of study and hard work, multiplied three times over. Each of the authors has passed all components of the Fellowship of the Royal College of Anaesthetists (FRCA) examination at their first sitting. It is this dedication and perseverance that we hope will be passed on to you through this publication. We believe that our questions are challenging, of the appropriate standard and, with our answers and references which act as a source of further reading, will serve to plug any gaps in your knowledge.

The Final FRCA exam is notoriously difficult, but, along with practice and commitment, we hope this book will help you on your way to successful completion of a major hurdle in your professional life.

NB, MK, AM

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Introduction

Get Through Final FRCA: MCQs has been designed to encompass the syllabus of the final examination of the Fellowship of the Royal College of Anaesthetists (FRCA). This book contains five complete examinations, each comprising 90 multiple choice questions (MCQs). The subject breakdown has been carefully designed to match that of the actual examination, as set by the College, and is as follows:

- 40 Anaesthesia, Pain and Basic Sciences
- 20 Medicine and Surgery
- 20 Intensive Care Medicine
- 10 Clinical Measurement

We have included answers – concise or detailed as necessary, but often with up-to-date, relevant references for those who wish to explore the subject matter further. Each candidate will adapt their own techniques in answering MCQs, and although you might be able to argue the point, in the end it comes down to a ‘True’ or ‘False’ answer. To some, this is unjust, but is nevertheless the way of the College. In 2008, the College changed the structure of the examination to remove negative marking. As such, the tips we can provide for the day itself are:

- Read each stem very carefully (including units)
- Read each possible True/False stem against the original question before answering
- Be careful not to miss a question if transcribing answers onto the optical mark reader sheets
- ‘Practice makes perfect’

At the time of writing, the Final FRCA examination is due to undergo change again with the introduction of 30 single best answer (SBA) questions. We felt that until the format of these questions is better understood, it would not be beneficial to the candidate for us to include these in this publication.

In addition to five complete papers, we have included two extra sections on landmark studies and guidelines relevant to the FRCA. While it was beyond the scope of this book to give detailed explanations or critical appraisal of the contents of these publications, we have included Internet links or complete references for those who wish to explore them further. We believe that these chapters will be useful not only for the written component of the examination but also, in time, for the Structured Oral Examinations (SOEs) or ‘vivas’.

There are many ways up the mountain, but the view from the top is exactly the same. Good luck!

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Guidelines and recommendations for the Final FRCA examination

Increasingly, care in anaesthesia and intensive care is guided by consensus or expert opinion. The FRCA examination expects the candidate to have current knowledge of important guidelines and recommendations. What follows is a brief synopsis of important guidelines from recent years (many of which have been the topic of conversation in the vivas). Bear in mind that these publications are updated regularly and the subject matter may be challenged by many anaesthetists. We recommend that this section be used as a guide for further reading.

Association of Anaesthetists of Great Britain and Ireland (AAGBI)
Website: www.aagbi.org

The AAGBI represents the interests of anaesthetists in the UK and Republic of Ireland. In addition to the promotion of research, the AAGBI publishes the following guidelines on a range of issues of concern to the anaesthetist:

Do Not Attempt Resuscitation (DNAR) Decisions in the Perioperative Period. 2009. Available at: www.aagbi.org/publications/guidelines/docs/dnar_09.pdf

Describes perioperative management of patients with ‘do not resuscitate’ decisions

Interhospital Transfer. 2009. Available at: www.aagbi.org/publications/guidelines/docs/interhospital09.pdf

Guidelines regarding preparation, equipment and documentation for transferring patients between hospitals

Pre-Hospital Anaesthesia. 2009. Available at: www.aagbi.org/publications/guidelines/docs/prehospital_glossy09.pdf

Guidelines for pre-hospital practitioners performing anaesthetic procedures outside the hospital setting

Suspected Anaphylactic Reactions Associated with Anaesthesia. 2009. Available at: www.aagbi.org/publications/guidelines/docs/anaphylaxis_2009.pdf

Updated since 2003; management plan, confirming significance of early diagnosis of anaphylaxis with early intravenous injection of adrenaline

Blood Transfusion and the Anaesthetist – Red Cell Transfusion. 2008. Available at: www.aagbi.org/publications/guidelines/docs/red_cell_08.pdf

Recommendations for transfusion of blood products and importance of documentation

Independent Practice. 2008. Available at: www.aagbi.org/publications/guidelines/docs/independent_practice_08.pdf

Guidelines regarding private practice for fully trained and qualified anaesthetists

Infection Control in Anaesthesia 2. 2008. Available at: www.aagbi.org/publications/guidelines/docs/infection_control_08.pdf

Measures recommended for anaesthetists to reduce infection rates in the perioperative setting

Assistance for the Anaesthetist. 2007. Available at: www.aagbi.org/publications/guidelines/docs/assistanceforanaesthetist07.pdf

Recommends changes involving training of anaesthetic assistants and ready availability of trained help when need arises

Management of a Malignant Hyperthermia Crisis. 2007. Available at: www.aagbi.org/publications/guidelines/docs/malignanthyp07amended.pdf

Anaesthetic management of this emergency

Management of Severe Local Anaesthetic Toxicity. 2007. Available at: www.aagbi.org/publications/guidelines/docs/latoxicity07.pdf

Anaesthetic management plan, including the use of Intralipid

Perioperative Management of the Morbidly Obese Patient. 2007. Available at: www.aagbi.org/publications/guidelines/docs/Obesity07.pdf

Guidelines for anaesthetic management; includes organizational and clinical problems associated with morbidly obese patients

Standards of Monitoring During Anaesthesia and Recovery, 4th edn. 2007. Available at: www.aagbi.org/publications/guidelines/docs/standardsofmonitoring07.pdf

Specifications of monitoring required in theatre and recovery areas

Consent for Anaesthesia. 2006. Available at: www.aagbi.org/publications/guidelines/docs/consent06.pdf

Ethical, professional and legal responsibilities of the anaesthetist regarding consent

Controlled Drugs in Perioperative Care. 2006. Available at: www.aagbi.org/publications/guidelines/docs/controlleddrugs06.pdf

Guidelines on storage and use of controlled drugs, in compliance with the various governing Acts

Transfer of Patients with Brain Injury. 2006. Available at: www.aagbi.org/publications/guidelines/docs/braininjury.pdf

Recommendations for improving the quality of transfer and outcome of head-injured patients

Anaesthesia Team. 2005. Available at: www.aagbi.org/publications/guidelines/docs/anaesthesiateam05.pdf

Considers the functions and training of individual members of the anaesthetic theatre team, with special reference to 'Anaesthetic Theatre Practitioners'

Day Surgery 2. 2005. Available at: www.aagbi.org/publications/guidelines/docs/dayurgery05.pdf

Recommendations for perioperative care in day surgery anaesthesia

Jehovah's Witnesses, 2nd edn. 2005. Available at: www.aagbi.org/publications/guidelines/docs/jehovah.pdf

- Recommendations for perioperative management of this subgroup of patients
- Obstetric Anaesthesia Services*. 2005. Available at: www.aagbi.org/publications/guidelines/docs/obstetric05.pdf
Administrative recommendations for anaesthetic set-up in a delivery suite
- Checking Anaesthetic Equipment 3*. 2004. Available at: www.aagbi.org/publications/guidelines/docs/checking04.pdf
Guidelines for performing preoperative checks on anaesthetic machines and equipment and importance of documentation
- Fatigue and Anaesthetist*. 2004. Available at: www.aagbi.org/publications/guidelines/docs/fatigue04.pdf
Highlights the dangers of tiredness and recommends changes in work environment and schedules to prevent work-related fatigue
- Good Practice in the Management of Continuous Epidural Analgesia in the Hospital Setting*. 2004. Available at: www.aagbi.org/publications/guidelines/docs/epidanalg04.pdf
Recommendations for patient selection when performing continuous epidural blocks; also covers management and staffing requirements for setting up this service in hospitals
- Syringe Labelling in Critical Care Area (Update)*. 2004. Available at: [www.aagbi.org/publications/guidelines/docs/syringelabels\(june\)04.pdf](http://www.aagbi.org/publications/guidelines/docs/syringelabels(june)04.pdf)
Safety measures for naming individual syringes and strengths of drugs in critical areas
- Theatre Efficiency*. 2003. Available at: www.aagbi.org/publications/guidelines/docs/theatreefficiency03.pdf
Guidelines regarding organization and administration within operating theatre suites
- Immediate Post-anaesthetic Recovery*. 2002. Available at: www.aagbi.org/publications/guidelines/docs/postanaes02.pdf
Recommendations for patients transferred to recovery areas following an anaesthetic procedure with or without surgery
- MRI – Provision of Anaesthetic Services in Magnetic Resonance Units*. 2002. Available at: www.aagbi.org/publications/guidelines/docs/mri02.pdf
Administrative recommendations for anaesthetic set-up in an MRI suite
- Care of the Elderly*. 2001. Available at: www.aagbi.org/publications/guidelines/docs/careelderly01.pdf
Guidelines on preoperative assessment and perioperative management of patients over the age of 80 years
- Pre-operative Assessment – The Role of the Anaesthetist*. 2001. Available at: www.aagbi.org/publications/guidelines/docs/preoperativeass01.pdf
Recommendations for examination and various investigations performed during the pre-anaesthetic assessment

Royal College of Anaesthetists (RCoA)

Website: www.rcoa.ac.uk

The RCoA runs an annual National Clinical Audit Project (NAP):

NAP 4: 4th National Audit Project (in progress). Available at: www.rcoa.ac.uk/index.asp?PageID=1089

Major complications of airway management

NAP 3: 3rd National Audit Project. 2009. Available at: www.rcoa.ac.uk/index.asp?PageID=717

Major complications of central neuraxial blocks

NAP 2: 2nd National Audit Project. 2003. Available at: www.rcoa.ac.uk/docs/AuditReportv16.pdf

Place of mortality and morbidity review meetings

NAP 1: 1st National Audit Project. 2003. Available at: www.rcoa.ac.uk/docs/AuditReportv16.pdf

Supervisory role of consultant anaesthetists

National Patient Safety Agency (NPSA)

Website: www.nrls.npsa.nhs.uk

The NPSA has a remit to lead and contribute to improved, safe patient care by informing, supporting and influencing organizations and people working in the health sector. It commissions CEMACH and NCEPOD (see below). Relevant NPSA Alerts include:

Throat Packs during Surgery. 2009. Available at: www.nrls.npsa.nhs.uk/resources/type/alerts/?entryid45=59853

WHO Surgical Safety Checklist. 2009. Available at: www.nrls.npsa.nhs.uk/resources/type/alerts/?entryid45=59860

Reducing Risk of Overdose with Midazolam Injection in Adults. 2008. Available at: www.nrls.npsa.nhs.uk/resources/type/alerts/?entryid45=59896&p=2

Clean Hands Save Lives. 2008. Available at: www.nrls.npsa.nhs.uk/resources/type/alerts/?entryid45=59848&p=2

Technical Patient Safety Solutions for Ventilator-Associated Pneumonia in Adults. 2008. Available at: www.nrls.npsa.nhs.uk/resources/type/alerts/?entryid45=59879&p=2

Infusions and Sampling from Arterial Lines. 2008. Available at: www.nrls.npsa.nhs.uk/resources/type/alerts/?entryid45=59891&p=2

Reducing Dosing Errors with Opioid Medicines. 2008. Available at: www.nrls.npsa.nhs.uk/resources/type/alerts/?entryid45=59888&p=2

Chest Drains: Risks Associated with the Insertion of Chest Drains. 2008. Available at: www.nrls.npsa.nhs.uk/resources/type/alerts/?entryid45=59887&p=2

Epidural Injections and Infusions. 2007. Available at: www.nrls.npsa.nhs.uk/resources/type/alerts/?entryid45=59807&p=3

Reducing the Risk of Hyponatraemia when Administering Intravenous Infusions to Children. 2007. Available at: www.nrls.npsa.nhs.uk/resources/type/alerts/?entryid45=59809&p=4

Right Patient, Right Blood: Advice for Safer Blood Transfusions. 2006. Available at: www.nrls.npsa.nhs.uk/resources/type/alerts/?entryid45=59805&p=4

High Dose Morphine and Diamorphine Injections. 2006. Available at: www.nrls.npsa.nhs.uk/resources/type/alerts/?entryid45=59803&p=5

Safer Patient Identification. 2005. Available at: www.nrls.npsa.nhs.uk/resources/type/alerts/?entryid45=59799&p=5

Reducing Harm caused by the Misplacement of Nasogastric Feeding Tubes. 2005. Available at: www.nrls.npsa.nhs.uk/resources/type/alerts/?entryid45=59794&p=5

Protecting People with Allergy Associated with Latex. 2005. Available at: www.nrls.npsa.nhs.uk/resources/type/alerts/?entryid45=59791&p=5

Improving Infusion Device Safety. 2004. Available at: www.nrls.npsa.nhs.uk/resources/type/alerts/?entryid45=59788&p=5

Potassium Solutions: Risks to Patients from Errors Occurring During Intravenous Administration. 2002. Available at: www.nrls.npsa.nhs.uk/resources/type/alerts/?entryid45=59882&p=6

The Confidential Enquiry into Maternal and Child Health (CEMACH)
Website: www.cmace.org.uk/getattachment/05f68346-816b-4560-b1b9-af24fb633170/Saving-Mothers'-Lives-2003-2005_ExecSumm.aspx

This is a triennial independent report formed in 2003 from the Confidential Enquiry into Stillbirths and Deaths in Infancy and the Confidential Enquiry into Maternal Deaths. The remit is to ‘improve the health of mothers, babies and children by carrying out confidential enquiries on a nationwide basis and then widely disseminating their findings and recommendations.’

The National Confidential Enquiry into Patient Outcome and Death (NCEPOD)

Website: www.ncepod.org.uk

Formed in 1999, the remit of NCEPOD is to assist in maintaining and improving standards of medical and surgical care for the benefit of the public by reviewing the management of patients, by undertaking confidential surveys and research, and by maintaining and improving the quality of patient care and by publishing and generally making available results of such activities:

Acute Kidney Injury: Adding Insult to Injury. 2009. Available at: www.ncepod.org.uk/2009aki.htm

To assess if acute kidney injury in hospital was caused by clinical or organisational deficiencies

Systemic Anti-Cancer Therapy: for Better, for Worse? 2008. Available at: www.ncepod.org.uk/2008sact.htm

To assess if cancer-related mortality in hospital was due to toxicity of drugs, disease progression or an unrelated cause

Coronary Artery Bypass Grafts: The Heart of the Matter. 2008. Available at: www.ncepod.org.uk/2008cabg.htm

To assess if there was identifiable change in care processes that affect the outcome following a first-time bypass

Sickle: A Sickle Crisis? 2008. Available at: www.ncepod.org.uk/2008sc.htm

To review data regarding mortality from haemoglobinopathy in order to obtain baseline data and recommend changes in practice if appropriate

Trauma: Who Cares? 2007. Available at: www.ncepod.org.uk/2007t.htm

To assess the management of a trauma patient from site of incident to hospital admission

Emergency Admissions: A Journey in the Right Direction? 2007. Available at: www.ncepod.org.uk/2007ea.htm

To assess organizational and clinical aspects of emergency patient care and recommend changes

The Coroner's Autopsy: Do We Deserve Better? 2006. Available at: www.ncepod.org.uk/2006.htm

To examine the use of the coroner's report as a tool for educational purposes, answering questions regarding mortality and addressing queries from relatives of the deceased

Abdominal Aortic Aneurysm: A Service in Need of Surgery? 2005. Available at: www.ncepod.org.uk/2005aaa.htm

To assess perioperative diagnosis and management of abdominal aortic aneurysms particularly as emergency admissions

An Acute Problem? 2005. Available at: www.ncepod.org.uk/2005aap.htm

To assess critical services provided to severely ill patients admitted to hospital

Scoping our Practice. 2004. Available at: www.ncepod.org.uk/2004sop.htm

To assess and recommend changes for improving the practice of gastrointestinal endoscopies performed by medical, surgical and radiological teams

Who Operates When? II. 2003. Available at: www.ncepod.org.uk/2003wow.htm

The follow-up report of which operations should be performed as emergencies and which staff should be performing them

Functioning as a Team? 2002. Available at: www.ncepod.org.uk/2002fat.htm

To assess how individual members in a hospital function as a team and to improve weaknesses within the system; including documentation in detail

Changing the Way we Operate. 2001. Available at: www.ncepod.org.uk/2001cwo.htm

To keep up with changing trends and patient clinical presentations by members in a hospital performing multidisciplinary audits and updates of information systems

Then & Now. 2000. Available at: www.ncepod.org.uk/2000tan.htm

A randomized comparison of mortality in hospital of two selected periods, 10 years apart

Percutaneous Transluminal Coronary Angioplasty. 2000. Available at: www.ncepod.org.uk/2000ptca.htm

To assess the mortality associated with coronary angioplasty and recommend changes

Interventional Vascular Radiology and Interventional Neurovascular Radiology. 2000. Available at: www.ncepod.org.uk/2000ir.htm

To assess relevance and safety of various invasive radiological procedures performed

Extremes of Age. 1999. Available at: www.ncepod.org.uk/1999ea.htm

To assess and recommend changes in the clinical and organizational services provided to children and elderly patients

Perioperative Deaths: The 1996/7 Report of NCEPOD. Available at: www.ncepod.org.uk/1996_7.htm

To assess and recommend changes in mortality occurring for surgical related procedures in hospital

Perioperative Deaths: The 1995/6 Report of NCEPOD. Available at: www.ncepod.org.uk/1995_6.htm

National Institute for Health and Clinical Excellence (NICE)

Website: www.nice.org.uk

NICE is an independent organization that provides national guidance for promotion of good health and prevention and treatment of ill health. NICE produces guidance in three key areas:

- *Public health*
- *Health technologies*
- *Clinical practice*

Child Maltreatment: Guidance on When to Suspect Child Maltreatment. 2009. Available at: guidance.nice.org.uk/CG89

Ultrasound-guided Regional Nerve Block. 2009. Available at: guidance.nice.org.uk/IPG285

Ultrasound-Guided Catheterisation of the Epidural Space. 2008. Available at: guidance.nice.org.uk/IPG249

Sleep Apnoea: Continuous Positive Airway Pressure for the Treatment of Obstructive Sleep Apnoea/Hypopnoea Syndrome. 2008. Available at: guidance.nice.org.uk/TA139

Perioperative Hypothermia (Inadvertent): Management of Inadvertent Perioperative Hypothermia in Adults. 2008. Available at: guidance.nice.org.uk/CG65

Technical Patient Safety Solutions for Ventilator-associated Pneumonia in Adults. 2008. Available at: www.nice.org.uk/guidance/index.jsp?action=byID&co=12053

Pain (Chronic Neuropathic or Ischaemic): Spinal Cord Stimulation. 2008. Available at: guidance.nice.org.uk/TA159

Venous Thromboembolism: Reducing the Risk of Venous Thromboembolism (Deep Vein Thrombosis and Pulmonary Embolism) in Inpatients Undergoing Surgery. 2007. Available at: guidance.nice.org.uk/CG46

Acutely Ill Patients in Hospital. 2007. Available at: guidance.nice.org.uk/CG50

Head Injury: Triage, Assessment, Investigation and Early Management of Head Injury in Infants, Children and Adults. 2007. Available at: guidance.nice.org.uk/CG56

Obesity: The Prevention, Identification, Assessment and Management of Overweight and Obese Adults and Children. 2006. Available at: guidance.nice.org.uk/CG43

Endovascular Closure of Patent Ductus Arteriosus. 2004. Available at: guidance.nice.org.uk/IPG097

Intra-operative Blood Cell Salvage in Obstetrics. 2005. Available at: guidance.nice.org.uk/IPG144

Extracorporeal Membrane Oxygenation in Adults. 2004. Available at: guidance.nice.org.uk/IPG39

Off-pump Coronary Artery Bypass (OPCAB). 2004. Available at: guidance.nice.org.uk/IPG35

The Clinical Effectiveness and Cost Effectiveness of Electroconvulsive Therapy (ECT) for Depressive Illness, Schizophrenia, Catatonia and Mania. 2003. Available at: guidance.nice.org.uk/TA59

Infection Control, Prevention of Healthcare-associated Infection in Primary and Community Care. 2003. Available at: guidance.nice.org.uk/CG2

The Use of Routine Preoperative Tests for Elective Surgery. 2003. Available at: guidance.nice.org.uk/CG3

The Clinical Effectiveness and Cost Effectiveness of Ultrasonic Locating Devices for the Placement of Central Venous Lines. 2002. Available at: guidance.nice.org.uk/TA49

Rheumatoid Arthritis: The Management of Rheumatoid Arthritis in Adults. 2009. Available at: guidance.nice.org.uk/CG79

Prophylaxis Against Infective Endocarditis. 2008. Available at: guidance.nice.org.uk/CG64

Cardiac Resynchronisation Therapy for the Treatment of Heart Failure. 2007. Available at: guidance.nice.org.uk/TA120

Diagnosis and Management of Type 1 Diabetes in Children, Young People and Adults. 2004. Available at: guidance.nice.org.uk/CG15

Surviving Sepsis Campaign

Website: www.survivingsepsis.org

This is an international collaboration between the European Society of Intensive Care Medicine, the International Sepsis Forum and the Society of Critical Care Medicine. Their remit is to improve the management, diagnosis and treatment of sepsis. They make detailed recommendations and grade their evidence base. The most recent update was in 2008.

The Intensive Care Society (ICS)

Website: www.ics.ac.uk

The ICS is the representative body in the UK for intensive care professionals. It is responsible for the production of guidelines and standards:

Standards and Recommendations for the Provision of Renal Replacement Therapy on Intensive Care Units in the United Kingdom. 2009. Available at: www.ics.ac.uk

Current options and best evidence available for the provision of renal replacement therapy in critically ill patients

Standards for the Management of Patients after Cardiac Arrest. 2008. Available at: www.ics.ac.uk

Comprehensive guide to the management of patients after cardiac arrest

British Consensus Guidelines on Intravenous Fluid Therapy for Adult Surgical Patients (GIFTASUP). 2008. Available at: www.ics.ac.uk

Venous Thromboprophylaxis in Critical Care. 2008. Available at: www.ics.ac.uk

Care of the Adult Patient with a Temporary Tracheostomy. 2008. Available at: www.ics.ac.uk

Organ and Tissue Donation. 2005. Available at: www.ics.ac.uk

Evaluation of Spinal Injuries in Unconscious Victims of Blunt Polytrauma; Guidance for Critical Care. 2005. Available at: www.ics.ac.uk

Provides recommendations for investigation and management of patients with potential spinal injuries whose consciousness is impaired either as a result of the primary injury or because of the requirement for sedation to facilitate other critical care interventions

Limitation of Treatment. 2003. Available at: www.ics.ac.uk

Guidelines for withdrawal of treatment from critically ill patients

The Process of Consent within the Intensive Care Unit. 2003. Available at: www.ics.ac.uk

Transport of the Critically Ill. 2002. Available at: www.ics.ac.uk

Sedation Guidelines. 2007. Available at: www.ics.ac.uk

Weaning Guidelines. 2007. Available at: www.ics.ac.uk

Association of Paediatric Anaesthetists of Great Britain and Ireland (APAGBI)

Website: www.apagbi.org.uk

Guidelines on the Prevention of Post-Operative Vomiting in Children. 2009. Available at: www.apagbi.org.uk/docs/Final%20APA%20POV%20Guidelines%20ASC%2002%2009%20compressed.pdf

Consensus Guidelines on Perioperative Fluid Management in Children. 2007. Available at: www.apagbi.org.uk/docs/Perioperative_Fluid_Management_2007.pdf

Royal College of Surgeons of England (Faculty of Dental Surgery) (RCSENG)

Website: www.rcseng.ac.uk

General Anaesthesia in Paediatric Dentistry. 2008. Available at: www.rcseng.ac.uk/fds/clinical_guidelines/documents/Guideline%20for%20the%20use%20of%20GA%20in%20Paediatric%20Dentistry%20May%202008%20Final.pdf

Scottish Intercollegiate Guidelines Network (SIGN)

Website: www.sign.ac.uk

Management of Chronic Heart Failure. 2007. Available at: www.sign.ac.uk/pdf/sign95.pdf

Safe Sedation of Children undergoing Diagnostic and Therapeutic Procedures. 2004. Available at: www.sign.ac.uk/pdf/qrg58.pdf

British Thoracic Society (BTS)

Website: www.brit-thoracic.org.uk

Guideline for Emergency Oxygen use in Adult Patients. 2008. Available at: www.brit-thoracic.org.uk/Portals/0/Clinical%20Information/Emergency%20Oxygen/Emergency%20oxygen%20guideline/THX-63-Suppl_6.pdf

Management of Asthma. 2008. Available at: www.brit-thoracic.org.uk/Portals/0/Clinical%20Information/Asthma/Guidelines/Asthma_fullguideline_2009.pdf

Management of Community Acquired Pneumonia in Adults. 2004. Available at: www.brit-thoracic.org.uk/Portals/0/Clinical%20Information/Pneumonia/Guidelines/MACAPrevisedApr04.pdf

Management of Suspected Acute Pulmonary Embolus. 2003. Available at: www.brit-thoracic.org.uk/Portals/0/Clinical%20Information/Pulmonary%20Embolism/Guidelines/PulmonaryEmbolismJUN03.pdf

American College of Cardiology (ACC)

Website: www.acc.org

American Heart Association (AHA)

Website: www.americanheart.org

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I. Practice Paper I: Questions

1. 48 hours following a blast injury, a patient becomes anuric; acute tubular necrosis (ATN) is likely if:
 - a. Urinary sodium is <20 mmol/day
 - b. Urine osmolality is <300 mOsm/kg
 - c. Fractional excretion of sodium is $<1\%$
 - d. Urine : plasma creatinine ratio is <10
 - e. Hyaline casts are present in the urine

2. A reduction in cardiac output is expected after administration of the following:
 - a. Histamine
 - b. Adenosine
 - c. Inhaled nitric oxide
 - d. Amiodarone
 - e. Dantrolene

3. Drugs with a large apparent volume of distribution V_D include:
 - a. Amiodarone
 - b. Aspirin
 - c. Digoxin
 - d. Remifentanyl
 - e. Warfarin

4. Following intra-arterial injection of thiopentone, the following is appropriate:
 - a. Stellate ganglion blockade
 - b. Intra-arterial injection of procaine
 - c. Intra-arterial administration of papaverine
 - d. Interscalene blockade
 - e. Intra-arterial heparin

5. Features of hypocalcaemia include:
 - a. Prolonged QT interval on ECG
 - b. J-waves on ECG
 - c. Stridor
 - d. Convulsions
 - e. Cullen's sign

6. Risk factors for the development of uterine atony include:
 - a. Oxytocin-augmented labour
 - b. Precipitous labour
 - c. Magnesium sulphate administration
 - d. Chorioamnionitis
 - e. Dantrolene administration