Chair's Report - Final Examination 2020.1

General Comments

This report summarises the areas examined in the 2020.1 Final Examination and is designed to be a useful tool for upcoming exam candidates, Supervisors of Training and other senior colleagues who assist trainees with exam preparation.

Candidates should be aware that whilst the exam is not held at the absolute end of their training, the **standard expected across all aspects of the exam** is that of someone ready to commence independent specialist practice; functionally it is an **exit exam.**

As **all aspects of the curriculum** are examinable, trainees are advised their best chance of success is to sit the exam when their clinical experience matches their theoretical knowledge. All sections of the exam are referenced to the curriculum so candidates are advised to be familiar with all aspects of the curriculum.

The assessment is inclusive of all four sections of the examination: multiple-choice question paper, short answer question paper, medical viva examination and anaesthetic viva examination. In order to cover the breadth of the curriculum, content is spread over all sections. In each examination sitting, it is variable what content is covered in each section of the final examination. For this reason, all sections are undertaken in the same examination sitting.

For candidates presenting for the 2020.1 examination, the medical viva component was cancelled a week before the scheduled sitting as a consequence of the emerging Covid-19 pandemic.

The mark allocation for the examination for this examination is shown below:

Section	**FANZCA**	**Vivas only**
MCQ	20	
SAQ	20	
Medical vivas	0	0
Anaesthesia vivas	48	48
TOTAL	88	48

The pass rates for candidates presenting for the Final Fellowship in March/ November 2020 are presented below:

Category		**MCQ**	**SAQ**	**Medical Clinical (CANCELLED)**	**VIVA**	**Overall**
ANZCA Trainees	No. Sat	183	183	-	157	183
	No. Passed	136	88	-	141	141
	Pass rate	74.3%	48.1%	-	89.8%	77.04%
SIMG - No Written	No. Sat	-	-	-	21	21
	No. Passed	-	-	-	8	8
	Pass rate	-	-	-	38.1%	38.1%
TOTAL	**No. Sat**	183	183	-	**178**	**204**
	No. Passed	136	88	-	**149**	**149**
	Pass rate	74.3%	48.1%	-	**83.7%**	**73.04%**

Medical Viva Examination

No report is provided for this component of the examination due to it being cancelled.

Instead, please find below an update regarding the new medical viva examination which will start with the 2021.1 sitting.

The medical viva component of the Final Examination has been redesigned to test the ability of a candidate to identify and assess the severity and stability of a specified medical condition without the involvement of a volunteer patient.

The medical vivas will continue in the format of two vivas, each around a clinical case. Each viva will have an opening stem followed by a series of questions asked by an examiner. Each viva will run for 15 minutes, with two minutes' reading time for each stem. The medical vivas will contribute 12 per cent of the total marks.

The medical viva assesses the ability of a candidate to show an understanding of a medical condition and its impact on anaesthesia and surgery. It is set in the context of the preadmission clinic; however, routine anaesthesia questioning is not expected, for example, around airway assessment.

The stem will include information relating to the age of the patient, the system to be assessed and the patient's medications.

Key areas to be examined within the viva include:

- the ability to demonstrate an understanding of relevant history for the specified medical condition
- a demonstration of the understanding of the expected physical signs and their relevance in the context of the specified medical condition
- the ability to integrate this information to form a diagnosis, assess the functional status of the patient and to grade the severity of the disease process
- the interpretation of several investigations in the context of the scenario
- integration of the investigations to stratify disease severity and to show an understanding of the medical condition and its treatment
- pathophysiology of the medical condition and the implications for anaesthesia and surgery
- medical optimisation in the perioperative period.

At least one medical viva will have a patient scenario with a cardiovascular or respiratory condition. Other systems that may be examined include neurological, gastrointestinal or renal as well as multisystem disorders.

Examples of clinical conditions that may be in the viva include but are not limited to:

- valvular heart disease
- ischaemic heart disease
- cardiomyopathies
- chronic obstructive pulmonary disease
- bronchiectasis
- cystic fibrosis
- diabetes mellitus
- connective tissue diseases.

Examples of possible investigations include but are not limited to:

- electrocardiograms
- chest X-rays
- echocardiograms
- pulmonary function tests
- blood tests.

In order to prepare for the new medical vivas, candidates are encouraged to continue assessing and examining patients, particularly in the preadmission clinic. They should

continue to ensure they have sufficient knowledge around a range of medical conditions and practise interpreting investigations.

Multiple-Choice Question Examination - pass rate 74.3%

The Final Examination Subcommittee decided in late 2019 to release the stems of the multiple-choice questions for each sitting, starting with the Chair's report of the 2020.1 examination. It is hoped that these stems will assist candidates in their preparation for this section of the examination. Examiners are well aware of the many 'black banks' which are accessed by candidates as part of their exam preparation. It is apparent that in recent years not all candidates have access to several of these banks, with some banks only being shared amongst local candidate groups. Publishing MCQ stems in the examination report will go some way to minimsing the inequitable access to question banks.

Each question is of the 'one best answer' type. No marks are deducted for incorrect answers. Most MCQ have five answer options. In the 2020.1 paper MCQs with four answer options were introduced.

<u>2020.1 MCQ stems</u>

A 50-year-old woman has had a headache for the last month which is relieved by lying flat. She has had no medical procedure to her spine such as epidural, spinal or lumbar puncture. Her brain magnetic resonance imaging (MRI) scan shows diffuse meningeal enhancement and brain sagging. Her neurologist suspects spontaneous intracranial hypotension and asks you to do an epidural blood patch. No spinal imaging has been performed to confirm a cerebrospinal fluid (CSF) leak. You should

A condition that is NOT associated with a raised baseline serum mast cell tryptase level is

In the field of anaesthesia, response surface modelling is typically used for evaluating the

Infrarenal aortic cross-clamping will alter renal blood flow with a(n)

The equipment shown in the picture is a (airway device shown)

Methylene blue may be used in the treatment of all of the following conditions EXCEPT

Your patient underwent a stellate ganglion block 2 hours ago. Prior to discharge you are asked to review the patient in recovery because of a droopy upper eyelid. The patient would also be expected to have ipsilateral

Of the following, the maternal cardiac condition that represents the highest risk of mortality associated with pregnancy is

The threshold plasma fibrinogen level at which you should start replacement during postpartum haemorrhage is

A patient with a history of paroxysmal atrial fibrillation and chronic obstructive airway disease, treated with digoxin 125mcg, salbutamol and salmeterol, develops a wheeze intraoperatively which responds to salbutamol via the endotracheal tube. The patient then develops rapid atrial fibrillation with a rate of 120 bpm, a BP of 90/60 and an ETCO2 of 40mmHg. The next most suitable treatment option is

A 55-year-old man with no past history of ischaemic heart disease is 3 days post total hip replacement surgery. He has an episode of chest pain that sounds ischaemic, began at rest and lasts thirty minutes before resolving fully. There are no ECG changes. 6 hours later there is a troponin rise above the 99th percentile upper reference limit. The diagnosis is
Complications from dural puncture and resultant intracranial hypotension do NOT include

A patient undergoing robotic prostatectomy, with controlled mandatory volume ventilation, has the following measurements: plateau pressure 32 cmH2O, PEEP 8 cmH2O, autoPEEP 4 cmH2O, peak pressure 38 cmH2O, tidal volume 600mL. The static compliance is

A 45-year-old man has poor oxygenation in the post anaesthesia care unit after a low anterior resection. His chest x-ray is below. The most likely diagnosis is

A 55-year-old lady scheduled for a transphenoidal hypophysectomy undergoes an oral glucose tolerance test with the following results: (Glucose tolerance test results shown) These results are most consistent with a diagnosis of

In the management of anaphylaxis in a 5-year-old with no intravenous or intra-osseous access, the correct dose of intramuscular adrenaline is

Of the following, the LEAST appropriate treatment in the management of severe acute respiratory distress syndrome (ARDS) is

The muscle or muscle group with the greatest resistance to the action of non-depolarising neuromuscular blocking agents is the

This type of tracheal tube is best described as a (picture of airway device shown)

You are using ultrasound with colour flow Doppler to scan a patient's neck prior to placing an internal jugular line. In the short axis view of the carotid artery, the colour Doppler image will be

If group A Rh-ve cryoprecipitate is not available for use in an A Rh-ve patient, of the following your next best choice should be

A new antiemetic drug ‘X’ is being evaluated. The percentage of patients who suffered postoperative nausea and vomiting (PONV) after administration of either the drug ‘X’ or placebo is as follows: percentage of patients with PONV after drug X = 20%; percentage of patients with PONV after placebo = 25%. The number needed to treat (NNT) is

The radial artery pressure trace shown below is from a patient who has an intra-aortic balloon pump in situ. The device has been switched to 1:2 augmentation to assess the timing. The trace shows an augmented beat followed by an un-augmented beat. With respect to the augmentation, the trace shows

Following uneventful sinus surgery, a 40-year-old, otherwise healthy male taking no medications, wakes up with confusion, agitation, headache and photophobia. The anaesthetist provided induced hypotension with a 40 % reduction in mean arterial pressure intraoperatively. It is suspected that there has been a period of cerebral ischaemia. Over 24 hours the patient makes a full recovery. The best description of this episode is

A patient has foam sclerotherapy to treat a number of varicose veins. Following the procedure she stands, immediately loses consciousness and develops a unilateral limb weakness. The most likely mechanism is

Of the following agents, haemodialysis is most effective in clearing (list of anticoagulant drugs given)

The tooth most likely to be damaged during laryngoscopy is the

In patients with IgE-mediated allergy to penicillin, the rate of anaphylaxis to cefazolin is estimated to be

A 25-year-old man suffers a 30% total body surface area burn. A physiological change expected within the first 24 hours is

Of the following, the side-effect LEAST likely to be caused by adenosine administration is

A patient with multiple co-morbidities has severe symptomatic aortic stenosis and is considered for an aortic valve replacement. Compared to an open surgical approach, a transcatheter aortic valve implantation (TAVI) has

The power of a two sample (two group) randomised controlled trial is NOT affected by (the)

Epidural filters are designed to retain particles down to a diameter of

A 55-year-old man is found to be in atrial fibrillation. He has no previous medical history. Physical examination, blood pressure and fasting blood glucose are normal. Appropriate long-term management is

In the treatment of diabetic ketoacidosis, the most important initial therapeutic intervention is to

The part of the lung that is typically divided into medial and lateral segments is the

A 75-year-old man has this right heart catheter trace as part of his investigation of dyspnoea. His pulmonary capillary wedge pressure is 24mmHg. The most likely diagnosis is (pressure trace shown)

An awake patient in the post-anaesthesia care unit complains of breathlessness. The FiO2 through the patient's rebreather mask is 40%. An arterial blood gas taken at the time shows (ABG shown). The alveolar-arterial gradient (in mmHg) is approximately

A patient has undergone a laparotomy with a central line inserted intra-operatively. In the PACU, the patient is dyspnoeic and a lung ultrasound is performed. The ultrasound, shown below, is consistent with

A 15-year-old boy undergoes a cardiac procedure for congenital heart disease. The intrathoracic device is a(n) (chest X-Ray shown)

The nerve labelled with an arrow in the diagram below is the (diagram of a nerve plexus shown)

Severe obstructive sleep apnoea in a 6-year-old child is confirmed if during polysomnography the apnoea/hypopnea index (AHI) is greater than or equal to

During a routine preoperative examination of a patient's heart, you note exaggerated splitting of the second heart sound with inspiration. This is characteristically heard in

A 72-year-old man with a murmur has a left heart catheter. Shown are the simultaneous waveforms in the aorta and left ventricle. The most likely diagnosis is

When topicalising the airway prior to a nasal awake fibreoptic intubation, it is necessary to anaesthetise all of the following nerves EXCEPT the

A patient with known suxamethonium allergy is most likely to demonstrate cross reactivity with

The incidence of venous air embolism is considered highest for

The minimum macroshock current required to elicit ventricular fibrillation is

The 12-lead ECG shown is most consistent with acute total occlusion of the

Following a severe spinal cord injury, return of reflexes is usually seen after

You are resuscitating a 60 kg man in cardiac arrest secondary to severe hyperkalaemia. You decide to give intravenous sodium bicarbonate. Australian and New Zealand resuscitation guidelines state the initial dose of 8.4% sodium bicarbonate should be

The function of the bottle labelled D in the diagram is to protect against the consequences of (diagram of multiple bottle chest drain system)

The coagulopathy that can result from intrahepatic cholestasis of pregnancy is due to

A patient presents with a serum sodium of 110mmol/L. A feature NOT consistent with a diagnosis of syndrome of inappropriate antiduretic hormone (SIADH) is

Compared to a normothermic patient, a patient with mild intraoperative hypothermia (35.0^{o} C) will have

You wish to place the tip of a central venous line at the cavo-atrial junction in an adult, which on a chest X-ray is at a level

The most likely cause of hip adduction in a patient undergoing transurethral resection of a bladder tumour is

A postpartum woman presents with numbness over the anterior thigh, and weakness on flexion of the hip and extension of the knee. An epidural was sited for labour and she underwent an instrumental delivery. The most likely site of the injury is the

A patient with von Willebrand deficiency Type 1 presents with mild but persistent epistaxis. First-line medical therapy should include

To minimise the risk of developing propofol infusion syndrome, the maximum recommended propofol infusion rate averaged over a 48-hour period is

A 26-year-old man is brought into the Emergency Department four hours after an accidental chemical exposure during crop spraying. His clinical signs include bradycardia, vomiting, diarrhoea, coughing, miosis and weakness. A drug which is NOT recommended during his resuscitation and treatment is

The ventilator waveforms shown represent

The ANZCA guidelines regarding pre-operative oral intake for infants under 6 months of age having an elective procedure under anaesthesia are

The commonest primary cause of death from anaesthesia airway events in the NAP4 report was

A patient has bipolar disorder and is on long term lithium therapy. An analgesic which should be avoided is

Benztropine ameliorates the side effects of drugs that antagonise

CYP2D6 variability has NO effect on the metabolism of

The catheter type most likely to be associated with bloodstream sepsis per days insertion is

You are asked to review a previously well 48-year-old woman two hours after hysteroscopic myomectomy and endometrial ablation under general anaesthesia. Her observations are: Heart rate 70 /minute, blood pressure 130/80 mmHg, SpO2 98% on 2 litres per minute of oxygen via nasal prongs. She is drowsy but rousable, oriented to person but not to time and place. Her electrolytes show: (List of electrolytes given) The most appropriate treatment is

During trauma resuscitation in adults, contraindications to blind nasogastric tube insertion include all of the following EXCEPT

In planning the induction of anaesthesia in a morbidly obese patient, the total body weight should be used to calculate the dose of

A 30 kg ten-year-old boy has a displaced distal forearm fracture that requires manipulation and plaster. The volume of 0.5% lidocaine that should be used for intravenous regional anaesthesia (Bier's block) is

You are planning to perform an adductor canal block for a patient prior to a total knee arthroplasty. The principal advantage of this approach compared to a conventional femoral nerve block below the inguinal ligament is

Cardiovascular effects of hyperthyroidism include

You are conducting a departmental audit and after 100 patients you have zero cases of dental damage. Your director asks you if you can estimate the risk of dental damage. You tell them that the approximate upper 95% confidence interval for the risk would be

A 64-year-old man presenting for elective surgery is on thyroxine 100 mcg daily. His thyroid function tests are: (Thyroid function tests shown). These results are most consistent with

The risk of major bleeding in patients taking non-vitamin K oral anticoagulants (NOACs) is significantly increased by commencing administration of

The manufacturer guidelines suggest the smallest sized endotracheal tube that should be safely passed over an Aintree Intubation Catheter is (internal diameter) size

A patient with a history of hereditary angio-oedema requires an appendectomy for acute appendicitis. The most effective therapy for the prevention of an acute attack in the perioperative period is

When providing anaesthesia for endovascular treatment of acute ischaemic stroke, the Society of NeuroInterventional Surgery and the Neurocritical Care Society recommend

The maximum warm ischaemic time acceptable for procuring the kidney following donation after cardiac death is

The recommended cleaning protocol for a laryngoscope handle which has been used but which has no visible soiling is

The neurosurgical registrar has telephoned about a patient with a spinal cord tumour who is on the list for tomorrow. The registrar tells you the patient has Brown-Séquard syndrome (hemisection of the spinal cord). On clinical examination, below the level of the lesion, you would expect to find all except ipsilateral

In a Blalock–Taussig shunt, blood passes to the pulmonary artery via the

10 mm on the Y axis of a standard ECG reading measures

In maternal cardiac arrest the most common arrhythmia is

An ASA 1 28-year-old man attends for inguinal hernia repair under general anaesthesia. He is administered propofol 180mg morphine 8mg rocuronium 50mg cephazolin 2g Post induction he develops an erythematous rash on his chest and arms, swelling of his lips and face, and severe hypotension. Preliminary blood results show: (allergy related tests shown). The most likely diagnosis is

A 43-year-old man is undergoing an elective endovascular coiling procedure for an 8 mm middle cerebral artery aneurysm. Midway through the procedure the interventionalist tells you they have ruptured the aneurysm. All of the following are appropriate initial interventions EXCEPT

The needle tip pictured is called a

In patients with sepsis and acute kidney injury, early renal replacement therapy (<12 hours) compared to a delayed strategy (48 hours) results in

Patients with obstructive sleep apnoea undergoing surgery, have been shown to have an increased incidence of

The independent predictors for severe bone cement implantation syndrome (BCIS) in cemented hemiarthroplasty for hip fracture do NOT include

According to National Audit Project (NAP) 5, the incidence of awareness during general anaesthesia for lower segment caesarean section should be quoted as

Piped oxygen supply in major hospitals is predominantly sourced from

The water capacity of an oxygen transport cylinder is 2 litres. The gauge is reading 150 bar. At an oxygen flow rate of 10 litres per minute, the number of minutes the cylinder will last is

According to the ANZCA PS 50 "Recommendation on Practice Re-entry for a Specialist Anaesthetist" it is recommended that after an absence of more than 12 month from practicing clinical anaesthesia a re-entry program should be offered. The duration of the program for every year of absence would usually be at least

Perioperative overheating is most likely to cause worsening of symptoms of

In elderly nondiabetic patients, the use of aspirin in primary prevention of disease

In a patient with known COPD, which of the following post bronchodilator spirometry results is consistent with a GOLD 3 classification? (Global initiative for chronic Obstructive Lung Disease)

The maximum fraction of inspired oxygen that can be prescribed with a Venturi mask is

Of the following, the agent that has the greatest capacity to absorb infrared radiation in the atmosphere is

The management of a patient who has suffered a cardiac arrest within ten days of cardiac surgery should NOT routinely include

A 22-year-old patient is scheduled for resection of a large extra-adrenal paraganglionoma. The tumour is secreting metanephrine. The most likely therapy to be commenced at the preassessment clinic prior to surgery is

A 50-year-old man is admitted with a stroke and undergoes cerebral angiography. The artery marked on angiography is the

A 34-year-old woman with cystic fibrosis has had a recent transthoracic echocardiogram to evaluate pulmonary pressure and suitability for lung transplantation. Below is a continuous wave Doppler trace through the tricuspid valve. Her central venous pressure is 5 mmHg. Her estimated right ventricular systolic pressure (RVSP) is

Normal (0.9%) saline has the physical properties of

You are asked to review a 65-year-old man in the Emergency Department who has presented with hypoxia and confusion. The chest x-ray shows a left-sided

According to the Australian and New Zealand Resuscitation Guidelines the immediate treatment for an adult conscious victim with a severe airway obstruction due to a foreign body inhalation is

You are urgently called to assist a colleague in a neighbouring theatre who has been having difficulty with intubation of a large adult male. They have managed to pass a double lumen tube airway exchange catheter. If the tip of the catheter is at the level of the carina, the approximate length outside of the mouth will be

A stroke patient presenting for clot retrieval with a right hemisensory loss and right homonymous hemianopia most likely has occlusion of the left

Soon after a peribulbar block, the patient's eye rapidly becomes proptosed and tense, and the visual acuity is markedly decreased. A lateral canthotomy is indicated to

The substance that should be avoided in a patient with history of anaphylaxis to MMR vaccine is

The anti-emetic action of aprepitant is via receptors for

The flow volume loop is most consistent with

An 80-year-old woman is admitted to hospital with respiratory failure. Her arterial blood gas on oxygen 4 litres per minute via a Hudson mask is as follows: (ABG shown) Which of the following most accurately describes this blood gas result?

The drug which has the LEAST impact on somatosensory evoked potentials (SSEPs) monitored in a 15-year-old patient undergoing scoliosis surgery is

You are asked to review a patient two days after a difficult total knee replacement, which was undertaken under tourniquet with spinal anaesthesia in combination with an ultrasound-guided adductor canal block and high volume local anaesthetic infiltration by the surgeon. The patient complains of a new onset of leg weakness on the operative side. The nerve LEAST likely to be involved in this weakness is the

The most common cause of airway compromise after anterior cervical spine surgery is

A 35-year-old male, three days post laparoscopic sleeve gastrectomy has ongoing nausea and vomiting. His arterial blood gas measurement is as follows: (ABG shown) The best initial therapeutic option would be

Techniques to improve the speed of onset and spread of a peribulbar block include all of the following EXCEPT

A fasted patient with type 2 diabetes mellitus presents for elective surgery. She has omitted one dose of a sodium-glucose co-transporter-2 (SGLT2) inhibitor. The lowest pinprick ketone level that would support a diagnosis of euglycaemic ketoacidosis is

The transducer that provides the best resolution for an ultrasound guided median nerve block is

Prior to neuraxial block in a patient with normal renal function, apixaban should be ceased for

A patient has prolonged surgery with a laryngeal mask airway. The following day she reports a problem with her tongue. You examine her and see the following when she protrudes her tongue. The most likely cause of the abnormality is (facial picture shown)

A patient with persistent pain on oral hydromorphone 12mg per day is admitted to hospital unable to tolerate oral intake. The equivalent parenteral morphine dose per day is

A 22-year-old man with a Fontan circulation is on your emergency list for an appendicectomy. He has had abdominal pain and vomiting for 3 days, and has a peritonitic abdomen. His preoperative arterial oxygen saturation is 95%. Shortly after induction he becomes hypotensive BP 80/45, and saturations fall to 75%. His condition is most likely to be improved by

The relatively slower onset of action of bupivacaine with adrenaline in brachial plexus anaesthesia compared to other local anaesthetics relates to

The most common cause of postoperative visual loss after spinal surgery is

Differential hypoxia is a syndrome characterised by lower arterial oxygen saturation in the upper body. It is a complication specific to the use of

A 50-year-old man has the following pulmonary function test result. The most consistent diagnosis is

A 65-year-old woman has presented with a grade 2 subarachnoid haemorrhage equally suitable for treatment with surgical clipping or endovascular coiling. The factor shown to most effectively reduce mortality in early subarachnoid haemorrhage treatment is

A change in respiratory physiology which occurs during pregnancy is DECREASED

You are inserting a pulmonary artery catheter in an intubated patient prior to cardiac surgery, and a significant amount of blood appears in the endotracheal tube. The most appropriate specific initial management is to

Indications for the use of hyperbaric oxygen therapy in the treatment of acute carbon monoxide toxicity include all of the following EXCEPT

A woman who is 35 weeks pregnant presents with nausea and vomiting. Among other blood test abnormalities, her alanine transaminase (ALT) level is 400 IU/l (normal <34) and her International Normalized Ratio (INR) is 2.3. This is most consistent with

The following electrocardiograph shows sinus rhythm with

A 55-year-old female presents to your preoperative clinic in preparation for elective total knee replacement. She has rheumatoid arthritis treated with prednisolone 5mg daily for the past year. Current guidelines suggest steroid replacement on the day of surgery should consist of

Hepcidin production is inhibited in response to

Abuse of nitrous oxide may lead to

The Brain Trauma Foundation guideline for management of severe head trauma recommend the treatment of intracranial pressures greater than

To perform regional anaesthesia suitable for a fourth toe amputation, it is essential to block the

Interventions that reduce the risk of agitation following electroconvulsive therapy include all of the following EXCEPT

The structure labelled A shows (gastric ultrasound image shown)

Short-Answer Question Examination – pass rate 48.1%

The SAQ Examination is designed to challenge and test the candidate's ability to apply their knowledge to clinical or workplace situations in a systematic and prioritised way.

This report is primarily written to assist future candidates in their preparation for the SAQ paper and therefore places emphasis on some of the recurrent themes and errors seen in answers that do not attract sufficient marks to meet the minimum standard criteria to achieve a pass mark.

Candidates are reminded to read the questions carefully during the reading time allocated at the beginning of the examination and again when they commence answering each question. Marks are only awarded for answering the question that has been asked. Time is wasted by writing information that is not required and will not contribute to the overall mark.

Answers that contain correct information are marked down when the answer is poorly structured, especially when information is poorly prioritised.

Answers containing information that is incorrect will be marked down not withstanding they may contain adequate correct information. It is therefore crucial to consider carefully what is written in response to a question.

There is a tendency for some candidates to use non-specific or non-defined terms without further explanation or context. When used in this way these terms do not attract marks and can on occasion result in marking down of an answer. Examples of these terms are 'cardio-stable anaesthesia', 'good pain relief', 'effective analgesia', 'multimodal analgesia', 'gentle induction', 'post-op ICU'.

The failure by some candidates to act on key words in the question remains problematic. In order to emphasise the importance of these words and to clarify their meanings, the following is a list of key words with their generally accepted meanings.

COMPARE	Look for similarities
CONTRAST	Set in opposition
DEFINE	Give the precise meaning of
DESCRIBE	Give a detailed account of
DISCUSS	Write about a topic in detail, taking into account different issues or ideas
EVALUATE	Make an appraisal of the worth of something
EXPLAIN	Make plain, interpret, account for
ILLUSTRATE	Make clear by concrete examples (or use a diagram to clarify)
INTERPRET	Explain what something means
JUSTIFY	Show adequate grounds for decisions
LIST	Catalogue by groups or classes with minimal explanation
OUTLINE	Give the main features or general principles
RELATE	Show how things are connected to and affect each other

Candidates are encouraged to read through previous examination reports and practice answering past questions under examination conditions.

Question 1

You are asked to anaesthetise a two-year-old child for an eight-hour craniotomy. The child is susceptible to developing malignant hyperthermia.

Outine your strategies for obtaining intravenous access in this child. (50%)
Discuss the issues of using a total intravenous technique in this situation. (50%)

Pass rate **39.9%**

Most candidates had plausible practical strategies for obtaining intravenous access in this child where exposure to volatile agents was contraindicated.

However, the second part of the question proved much harder part for most. It appeared that many candidates may have run short of time, having spent too long on the first part.

The discussion required consideration of the difficulty in dosing of agents with reference to altered pharmacokinetics, the available TCI systems for this age of patient, and the problems/difficulties with using the usual feedback system used in TIVA, i.e. EEG.

In addition, consideration of the risk of accumulation and delayed emergence was required.

It was noted that around 65% of answers discussed propofol infusion syndrome, sometimes in great depth and to the exclusion of the above key points. Propofol infusion syndrome is a serious condition, however, it is rare and highly unlikely in this setting.

Question 2

Describe the anatomy of the orbit in relation to performing a peribulbar block for cataract surgery.

Pass rate **71.6%**

The majority of candidates met the requirements to pass this question, using descriptions and diagrams.

Key points required in an answer were:

- The orbit has a ‘conal’ structure, with the basic identifying anatomy of that structure identified.
- A peribulbar block aims to stay outside that ‘cone’.
- The description of correct/safe placement of the needle.

Generic procedural and ‘nerve block’ information (consent; confirm side; preparation; choice of LA etc) was included in many answers. This was not required and didn’t attract marks.

Question 3

Discuss the consequences of perioperative hypothermia.

Pass rate **48.6%**

This question was poorly answered given the key role anaesthetists have in the prevention of perioperative hypothermia and the significant impact that hypothermia has on patient outcomes.

As a minimum these areas required discussion:

- Potential myocardial ischaemia or conduction issues
- Increased infection rates (surgical wounds in particular)
- Increased blood loss
- Altered metabolism

There was often simply insufficient relevant information presented combined with the inclusion of factually correct but irrelevant information.
A significant number of answers contained factually incorrect information regarding the altered physiology that can occur with hypothermia.

Question 4

The Physiological and Operative Severity Score for the enUmeration of Mortality and Morbidity (POSSUM) and the Surgical Outcome Risk Tool (SORT) are examples of risk scoring systems used for predicting post-operative morbidity and mortality.

Evaluate the strengths and weaknesses of these types of risk scoring systems in clinical practice.

Pass rate **72.1%**

This question had a good pass rate.

Candidates were required to demonstrate knowledge of risk scoring systems and an understanding of the value of using them in particular circumstances.

Strengths include:

- Better than clinical judgement alone
- Allows shared decision making with patient and surgeon
- Improved preoperative planning

Weaknesses include:

- Not predictive for the individual patient
- May not apply to your specific hospital or population

Question 5

A 36-year-old with a history of opioid dependence is booked for spinal surgery. The patient is no longer on opioids and is maintained on 50mg of oral naltrexone daily.

Discuss the implications of the history of opioid dependence and current naltrexone treatment for the provision of effective analgesia, including an analgesia plan upon hospital discharge.

Pass rate **49.2%**

There were a significant number of good answers to this question. These answers demonstrated knowledge of naltrexone, its use in this setting and the implications of this and the patient's past opioid dependence on provision of analgesia.

The candidates who failed this question had often failed to read the question carefully. Many assumed current opioid use as well as 'major' spinal surgery.

A reasonable number of candidates appeared not to understand the pharmacology of naltrexone, seemingly confusing it with buprenorphine.

The statement 'multimodal analgesia', without any further explanation, was not sufficient. More detail with relevance to the described clinical scenario was required.

Question 6

A patient is due to have intramedullary reaming and nailing of a pathological fracture of the femur secondary to metastatic renal cell carcinoma.

Outline the key issues this case presents. (50%)

Describe how you would manage these issues. (50%)

Pass rate **45.9%**

This question was not particularly well-managed with lack of prioritisation and/or omission of the key issues in many answers.

The key issues included the patient being high risk due to their metastatic disease, the risk of major blood loss, and the risk of tumour or fat emboli during reaming.

Most of the answers that did not achieve a pass mark did so due to inadequate information about the risk of bleeding or tumour/fat embolus, and how this would be managed.

Many answers placed emphasis on the principles of onco-anaesthesia, an issue of questionable relevance in a likely palliative procedure. In addition, discussions around traditional chemotherapy (rarely used in renal cell carcinoma), tumour lysis syndrome which is rare, and paraneoplastic syndromes were seen in a number of answers.

Question 7

You are concerned about the possibility of substance abuse by a consultant colleague.

Describe the signs that are suggestive of substance abuse in a colleague. (50%)

Outline the steps that should be followed if this is suspected. (50%)

Pass rate **47.5%**

The first part of this question was done well by most of the candidates with the major and minor signs, including behaviour issues outside the workplace, being well described.

However, the second part of the question was done poorly. The answer required a mature approach to a very critical and delicate topic. The key components required were direct acknowledgement of confidentiality, patient safety, doctor safety (welfare of a colleague), the medico-legal aspect, and all the steps required for the best outcome.

Question 8

A 60-year-old lung cancer patient is planned to undergo an open thoracotomy, involving possible rib resection.

List the regional techniques available for post-operative pain management and justify your choice of regional technique for this patient. (50%)

Outline your management plan if pain is still present at the operative site 14 days later. (50%)

Pass rate **72.1%**

This question was answered well by most candidates, and extremely well by a significant number.

In the first part of the question most candidates appeared well informed about the options for regional analgesia in this setting. However, there were answers which simply listed regional techniques without then choosing and justifying their choice of technique.

The second part of the question was answered well by a sizable minority, with these answers canvassing the possibilities of surgical complications, persistent surgical pain, or neuropathic pain. These answers followed up with a management plan for analgesia using medication, regional and non-pharmacological techniques, then referring appropriately to a pain specialist for follow-up.

Question 9

A patient with an implantable cardioverter defibrillator pacemaker is scheduled for a left mastectomy.

Discuss how the presence of this device affects your management of this patient.

Pass rate **79.2%**

This question was well answered and demonstrates that the vast majority of candidates appreciate the risk of electromagnetic interference, with better candidates considering device proximity to the surgical site and the potential for accidental damage to the lead or device.

This was elective surgery, so neglecting to request a pacemaker technician to turn off the shock function preoperatively, relying on using a magnet in the surgical field, and not applying defib pads after the shock function was turned off was deemed questionable safety by the examiners and those answers were marked down.

Question 10

Outline your peri-operative management of a patient with mitral stenosis scheduled for a laparoscopic inguinal hernia repair.

Pass rate **78.1%**

The management of a significant valvular lesion during non-cardiac surgery is a core topic and the majority of candidates answered this question to the examiners' satisfaction.

Some common mistakes by candidates which resulted in answers being marked down were:

- Confusing the aetiology of mitral stenosis and mitral regurgitation.
- Incorrect classification of the severity of mitral stenosis.
- Lack of acknowledgement of the surgical technique as an influence on peri-operative management – ie. peritoneal versus pre-peritoneal insufflation versus open technique.
- The use of non-defined terms without a follow up explanation eg. 'gentle induction', 'cardio-stable', 'effective analgesia', 'good pain relief'.

Question 11

A patient with diabetes mellitus presents fasted on today's list for elective ileo-femoral bypass surgery.

His biochemistry results from this morning are as follows:

Na 142 mmol/L	**(135-145 mmol/L)**
K 6.0 mmol/L	**(3.5-5 mmol/L)**
HCO3 18 mmol/L	**(20-29 mmol/L)**
Cl 105 mmol/L	**(97-107 mmol/L)**
urea 12 mmol/L	**(3.0-6.5 mmol/L)**
creatinine 300 mmol/L	**(60-125 mmol/L)**
eGFR 30 mL/min/1.73m^2	**(>90mL/min/1.73m^2)**

Interpret these results.

List the most likely differential diagnoses.

Justify any additional information you require in order to make your diagnosis.

Pass rate **32.8%**

This question had a very poor pass rate.

Questions requiring candidates to interpret investigation results in the context of a given clinical scenario are asked throughout all parts of the Final Examination.

It is important that candidates read the question carefully, then organise and prioritise their answers in light of the clinical situation presented.

Answers to this question that did not mention renal dysfunction and DKA as a possible cause of a metabolic acidosis in this setting attracted poor marks.

Other factors that resulted in answers being marked down:

- Failure to recognise that reduced bicarbonate could be a marker of acidosis.
- If lactic acidosis was mentioned, it was usually in the context of limb ischaemia or sepsis which are both unlikely in this scenario. The relationship between metformin and lactic acidosis was rarely highlighted.
- Not all candidates that gave a differential of ketoacidosis mentioned both DKA and eDKA
- Many candidates did not relate their answer to this patient and situation.
- A common example of not relating an answer to this clinical scenario was the large number of candidates who had ethylene glycol in their differential for this patient's high anion gap metabolic acidosis. This is one of the classic acids for consideration, however it wouldn't be high on a list of differentials in a diabetic patient presenting fasted for an elective vascular procedure.

Question 12
Evaluate the use of cerebral oximetry monitoring in non-cardiac surgery.

Pass rate **51.4%**

This question required candidates to demonstrate an understanding of cerebral oximetry monitoring and to appraise its value and limitations in non-cardiac surgery.

Most candidates had some knowledge of the theory around this device, but a significant number then failed to adequately explain its use as a surrogate for cerebral perfusion and oxygen extraction, and how that might guide an anaesthetist to optimise physiology in the context of the types of surgery it is used.
There were some comprehensive lists of the pros and limitations in the types of surgery in which it is used, although the fact that there is a paucity of evidence for stroke prevention was commonly missing from answers. Another commonly missed point was that a fall from baseline doesn't inform the anaesthetist as to the specific cause, and that there could be several possible physiological parameters requiring optimisation.

Question 13

Evaluate the use of available neuromuscular blocking agents when performing a rapid sequence induction.

Pass rate **42.6%**

Those candidates who answered the question that was asked scored well.

However, many candidates reverted to a Primary Examination type answer with a table listing the pharmacodynamics and pharmacokinetics of NMBAs without any evaluation of the clinical application of the agents. This led to a disappointing pass rate for such a straightforward question and probably reflected poor exam technique rather than lack of knowledge.

Question 14

A 22-year-old primigravida at 31 weeks gestation is admitted to hospital with a diagnosis of severe pre-eclampsia. Her blood pressure is 180/115 mmHg.

Describe the symptoms and signs she may have due to her pre-eclampsia. (50%)

Outline the appropriate immediate management of this patient. (50%)

Pass rate **61.7%**

This is a common scenario in any obstetric unit.

An answer was required to demonstrate an understanding of severe pre-eclampsia by describing the correct symptoms and signs of the disease process and that it is a medical emergency requiring urgent management by the Obstetric, Anaesthetic and Midwifery team.

Key points in the immediate management include, but are not limited to:

- Urgent management of BP to reduce the risk of intracerebral haemorrhage with details of a plan to achieve a reasonable target BP.
- Loading dose of Magnesium followed by an infusion to reduce the risk of eclampsia.
- Haematology and biochemistry investigations.
- Consideration of a delivery plan.

Answers attracting poor marks often poorly described the symptoms and signs of preeclampsia, failed to consider fetal wellbeing, contained errors in antihypertensive drug doses (or no doses at all), did not provide second line drugs to control blood pressure, and lacked understanding of the use of magnesium in severe preeclampsia.

Question 15

Discuss the anaesthetic considerations for an adult patient with rheumatoid arthritis presenting for wrist surgery.

Pass rate **61.2%**

This is a very straightforward question, and a higher pass rate might have been expected. It could be that candidates were running short on time given it was the last question on the paper.

There were some extremely good answers that comprehensively covered the following, including discussion of the anaesthetic options:

- Assessment of the severity of RA, cardiorespiratory involvement and current medications.
- Potential for atlanto-axial instability and airway considerations.
- Consideration of regional anaesthesia/analgesia.
- Careful positioning of the patient.
- Analgesia.

Answers that overcalled the situation such as ‘needs ICU’, ‘can’t be day surgery’, ‘large bore IVs’, ‘arterial line’, ‘protective ventilation’ were marked down.

Anaesthesia Vivas Pass Rate 83.7%

The anaesthesia viva examination is the component of the exam where several areas of specialist level practice can be tested in eight complex and evolving scenarios. Several key areas are tested:

1. Application of safe clinical practice,
2. Demonstration of sound clinical judgment
3. Plan and prioritise clinical actions
4. Demonstrate an ability to adapt to changing clinical scenarios, and
5. Be able to justify your clinical decisions.

As a final exit examination, candidates are expected to demonstrate consultant-level thinking and communication. Vivas were constructed and vetted within the Court of Examiners over an extended period. This allows the determination of a consensus as to what constitutes a **minimum level of competence** needed to pass each viva. This is consistent with what we would expect of an independent specialist anaesthetist.

It is paramount that candidates demonstrate **safe clinical practice**. Some areas in the viva scenarios are clearly situations designed to test a candidate's ability to make appropriate decisions in a **safe** manner. Decisions deemed unsafe practice prevent a candidate from passing the viva. This also applies to what is considered to be core knowledge expected of a specialist anaesthetist, e.g. ACLS algorithms. Candidates are expected to perform at an exceptional level in such core areas.

Communication during the viva is another fundamental skill - not just communicating clinical decisions during the viva, but also moving through the viva at a pace which will allow the candidate to maximise coverage of all areas of the viva. Whilst it is not critical to have completed the whole of the available viva in order to pass, a candidate who is very slow to move forward will have limited time available to achieve marks.

Better performing candidates will give clear structured answers. Their answers will be organised, even in the face of a complex problem, demonstrating their ability to prioritise the main issues involved. They will also demonstrate consultant-level decision making, which is based on sound clinical and evidentiary principles.

Below are the stems for all sixteen vivas. As well as providing the introductory stems, the key points needed to pass each viva have been included.

This information can be used by candidates in their exam preparation as an example of the skills required to pass the anaesthetic viva examination.

VIVA 1 PASS RATE: 76.1%

A 25-year-old woman has been brought into hospital by ambulance after being struck by a falling branch in a storm. You are advised that she is obviously pregnant and is in a confused state. You are asked to attend the emergency department as part of the trauma call team.

In addition to the routine assessment of airway, breathing and circulation, what are the important aspects of assessing this patient?

KEY POINTS COVERED

- Initial assessment and management of mother and fetus
- Management of raised ICP in a pregnant patient
- Assessment and management of ongoing hypotension from occult bleeding

VIVA 2 PASS RATE 79.3%

You are the duty consultant anaesthetist at a tertiary hospital.

You are called to come immediately to the intensive care unit (ICU) to help other medical staff struggling with the airway management of a patient with a tracheostomy.

On arrival you see:

- the ICU consultant attempting to insert a laryngeal mask airway (LMA)
- an ear, nose and throat (ENT) surgical registrar attempting to replace the tracheostomy tube
- oxygen saturation SpO2 86%
- heart rate 122 beats per minute
- blood pressure 195 / 115 mmHg

The ICU consultant tells you this is a 55-year-old man weighing 165kg who has community-acquired pneumonia. The patient had a surgical tracheostomy three days ago. The tracheostomy tube has now become dislodged while turning the patient.

What are your priorities?

KEY POINTS COVERED

- Airway management in ICU including engagement with staff and communication strategies.
- After initial management tracheostomy reinserted in theatre with management of pneumothorax.
- Management of decannulation

VIVA 3 PASS RATE 81.5%

A 6-year-old child is scheduled for adenotonsillectomy in a regional hospital.

You are seeing him for the first time on the morning of surgery.

He is 35kg and on no medications.

What are the important factors in your decision to proceed with this operation in a regional centre with this child?

KEY POINTS COVERED

- Recognition of paediatric obesity with assessment and safe management of induction.
- Strategies to manage emergence delirium.
- Management of bleeding post-tonsillectomy without IV cannula

VIVA 4 PASS RATE 81.5%

You are asked to see an 84-year-old woman in the acute orthopaedic ward.

She was admitted earlier in the afternoon with a peri-prosthetic femoral fracture after a mechanical fall at home. She had a right total hip replacement five years ago for osteoarthritis. She is scheduled for revision total hip arthroplasty tomorrow morning.

She has a history of cardiac failure, type 2 diabetes, hypertension and atrial fibrillation.

Medications:	rivaroxaban	15 mg daily
	atenolol	50 mg daily
	metformin	500 mg twice daily
	perindopril	5 mg daily

At your pre-operative consult she is distressed, in pain and difficult to engage.

How would you assess her capacity to make decisions?

KEY POINTS COVERED:

- Assessment of capacity and discuss role of advanced care directives. Describe methods of improving analgesia.
- Describe medical assessment, management of general anaesthesia and manage rapid AF.
- Relatives report postoperative cognitive change. Diagnosis and discussion re prognosis

VIVA 5 PASS RATE 88.0%

A 58-year-old man presents to the preadmission clinic prior to thoracic decompression and sural nerve biopsy to be done in the prone position.

His history includes progressive lower limb and truncal weakness.
Progression has occurred over the last four months and he is now wheelchair-bound.

Weight 152kg, body mass index 48 kg/ m^2

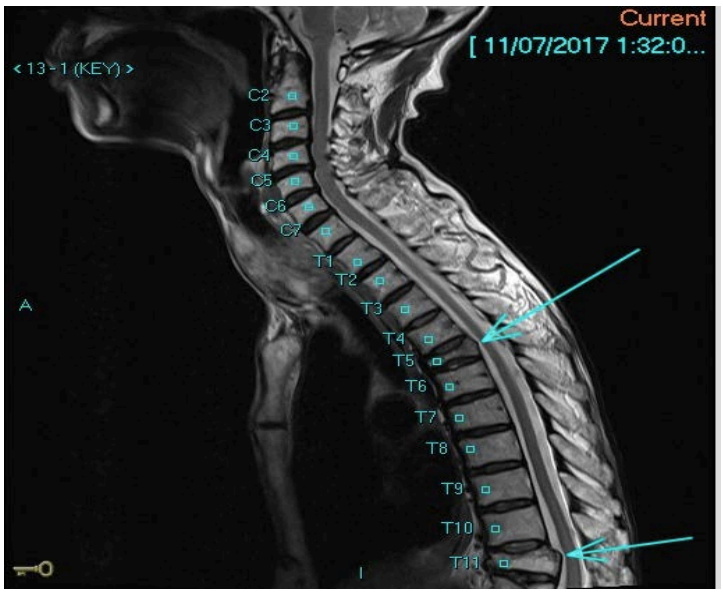
His past medical history includes:

obstructive sleep apnoea - on continuous positive airway pressure (CPAP) therapy

hypertension

Current medications:

candesartan	8mg daily
enoxaparin	40mg subcutaneous injection daily
pregabalin	150mg bd



What are the key issues you will address during the pre-anaesthetic assessment?

KEY POINTS

- Assessment of complicated patient and preparation for induction.
- Hypotension progressing to pulseless electrical activity whilst prone.

- ACLS management of what is a pulmonary embolus.
- Decision to reoperate ten days later and what precautions to take

VIVA 6 PASS RATE 85.9%

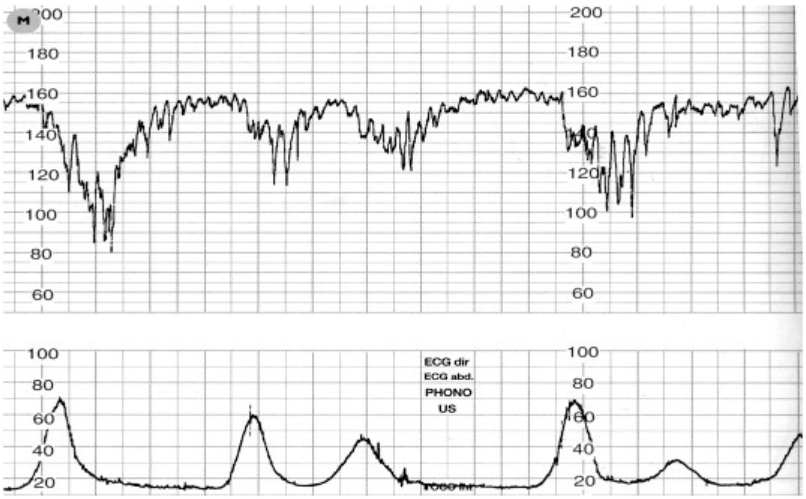
As the on-call anaesthetist in a general hospital you are asked by a midwife to place an epidural for a labouring patient in the delivery suite.

The patient is 42 years old, G6P0, and has had three in vitro fertilisation (IVF) attempts. She is 38 weeks' pregnant and labour was induced because of reduced fetal movements.

When you go to assess the patient, the midwife shows you the following baseline cardiotocogram (CTG).

The obstetrician and your anaesthetic registrar are not immediately available because they are in theatre with another case.

Here is the CTG.



Please interpret it. What would you do?

KEY POINTS COVERED:

- Assess CTG showing late decelerations. Describe foetal resuscitation and epidural management.
- Patient progresses to emergency LUSCS but needs CPR from amniotic fluid embolus
- Resuscitation successful but develops coagulopathy with fibrinolysis diagnosed on ROTEM

VIVA 7 PASS RATE 81.5%

A 45-year-old female inpatient at your tertiary hospital was admitted with increasing shortness of breath. Her imaging and investigations confirmed a right sided empyema. Her surgeon indicated that it is complex and not amenable to percutaneous drainage so has booked her on your list for a right thoracotomy and decortication.

Past medical history:
systemic sclerosis (scleroderma)
interstitial lung disease (pulmonary fibrosis)
Raynaud's phenomenon
gastroesophageal reflux

Current medications:

omeprazole	40mg mane
mycophenolate	1g bd
amlodipine	10mg mane
ceftriaxone	1g intravenously bd
metronidazole	500mg intravenously bd

How will you assess her cardiorespiratory function in preparation anaesthesia with one-lung ventilation?

KEP POINTS COVERED:

- Thorough assessment and surgery planning
- Management options for one-lung anaesthesia leading to bronchial blocker insertion
- Management of dislodged bronchial blocker in context of pulmonary haemorrhage

VIVA 8 PASS RATE 85.9%

A 47-year-old man is on your list today for an open reduction and internal fixation of a right proximal humerus fracture. His injury was sustained in a motorbike accident three days ago. Following his accident he was assessed in the emergency department and then discharged home.

Medications:

Metformin	1 g bd
Atorvastatin	40 mg daily
Perindopril	8 mg daily
Paracetamol	1g q4h PRN (last three days)
Oxycodone	10mg q4h PRN (last three days)

weight 146 kg
height 180 cm
body mass index 45 kg/ m^2

heart rate	78 beats per minute
blood pressure	148/86 mmHg
SpO_2	96% on air
respiratory rate	16 breaths per minute

On initial inspection he has a full beard, a graze on the right side of his face, and bruising on the right side of his chest and right hip. His right arm is in a collar and cuff sling.

What issues would you focus on assessing pre-operatively?

KEY POINTS COVERED:

Assess analgesia and describe technique for interscalene block
Patient seizes from LA toxicity – appropriate management.
Patient has a difficult airway – management
Decision on when and how to extubate

VIVA 9 PASS RATE 81.4%

You are the on-duty anaesthetist at a large regional hospital which provides general paediatric services.

A 5-year-old boy has been knocked off his scooter in the driveway by his mother's four-wheel drive (4WD) car.

He is en route to the hospital by road ambulance, and the estimated time of arrival is in ten minutes.

You have been called to the emergency department to assist in his resuscitation.

What would you do in preparation before the child's arrival?

KEY POINTS COVERED

Preparation for arrival and then ATLS in child
Ongoing haemorrhage and management of massive transfusion in a child
Development of hypoxia with differential diagnosis of TRALI

VIVA 10 PASS RATE 72.1%

You have commenced your shift this morning as the in-charge consultant anaesthetist in a regional hospital where you are also responsible for the intensive care unit (ICU).

In the ICU, there is a 40-year-old man with isolated bilateral femoral fractures who was admitted 20 hours ago and has been booked for surgery later today.

He is otherwise well with no co-morbidities or other injuries.

You have been asked to review the patient as his pain is poorly controlled despite having been prescribed an intravenous morphine patient-controlled analgesia regimen.

Your nursing staff also tell you that the patient is becoming increasingly confused.

What are the possible reasons for this patient's poor pain control?

KEY POINTS COVERED:

Assessment and management of pain and confusion in patient
Development of fat embolism syndrome with differential diagnosis and management
Postop management in intensive care with ABG interpretation and discussion of prognosis

VIVA 11 PASS RATE 79.1%

A 4-year-old girl presents on your ear, nose and throat (ENT) list at a small regional hospital for elective bilateral myringotomies and insertion of grommets.

She has a history of recurrent middle ear infections and has also been diagnosed with asthma and atopic dermatitis. She is allergic to peanuts.

On the preoperative-assessment questionnaire her mother has stated that the child currently has a runny nose and a cough.

The girl's medications are:

fluticasone 100-200 mcg daily (via metered-dose inhaler plus spacer)
salbutamol 200-400 mcg PRN (via metered-dose inhaler plus spacer)

What further information do you want from the child's mother?

KEY POINTS COVERED:

Assess child with URTI and asthma for upper airway surgery
Management of induction and then subsequent laryngospasm
Management of subsequent bronchospasm

VIVA 12 PASS RATE 75.6%

You have been asked to assess a 26-year-old woman with ulcerative colitis for an inpatient semi-urgent laparoscopic-assisted total proctocolectomy with ileoanal anastomosis.

Medications

mesalazine	2g orally bd
prednisolone	40mg orally daily
infliximab	300mg intravenously fortnightly

		Reference ranges
sodium	135 mmol/L	(135-145 mmol/L)
potassium	4.0 mmol/L	(3.5-5.2 mmol/L)
creatinine	75 µmol/L	(<105 mmol/L)
haemoglobin	105 g/L	(115-155 g/L)
MCV	71 fL	(80-100 fL)
MCH	23 pg	(27.5-33.2 pg)
white cell count	6.4 x103 /µL	(3.5-9.8 x103 /µL)
platelets	400 x103 /µL	(150-450 x103 /µL)
iron	8 µmol/L	(5.0-30 µmol/L)
transferrin	3.2 g/L	(2.0-3.2 g/L)
transferrin saturation	12%	(10-45%)
ferritin	40 ng/mL	(20-250 ng/mL)
CRP	150 mg/L	(<5 mg/L)
albumin	30 g/L	(38-52 g/L)

What are the key points to consider when deciding on the best timing for her surgery?

KEY POINTS COVERED:

Assessment of issues of chronic illness. Involvement of a team and a plan for postop analgesia discussed
Normotensive tachycardia. DDx. How to exclude awareness on raw EEG.
Diagnosis and management of SIRS postoperatively.

VIVA 13 PASS RATE 80.2%

You are at home and the junior night anaesthetic registrar rings you at 0200 to let you know about a case which has just been booked. There is an 18-year-old man with a right open eye injury which the ophthalmology team want to explore within the next six hours. Your registrar tells you he has just started an appendicectomy. He hasn't done any eye cases before and would like to know what he should do.

The history from the ophthalmology registrar is that the patient had been out drinking, has allegedly been assaulted, fell to the ground and has a large facial swelling and an open eye injury and is alert. He has taken a photo. The patient is uncooperative but the registrar doesn't think there are any other injuries and the patient is otherwise well.

Your registrar would like to do the case after the appendicectomy.

What will you say?

KEY POINTS COVERED:

Discuss pros and cons of early management of eye injury in intoxicated patient
Development of raised ICP from late bleed
Once controlled when to do eye surgery and how to extubate

VIVA 14 PASS RATE 84.9%

A 22-year-old woman who is 32 weeks pregnant presents to the High Risk Obstetric Anaesthesia Clinic for assessment and delivery planning.

She has a history of

- illicit drug use and is currently using methamphetamine
- previous bacterial endocarditis

What are the specific issues you would explore further during the initial antenatal assessment?

KEY POINTS COVERED

Antenatal assessment and planning
Management of dural puncture, discuss role of intrathecal catheters
Fetal distress, management of a patchy block for LUSCS

VIVA 15 PASS RATE 67.4%

You are asked to review a 76-year-old man for planned thoracic endovascular aortic repair (TEVAR) on your list in seven days' time. His aneurysm includes the origin of the left subclavian artery and extends distally to the renal arteries.

He has a background of hypertension, type 2 diabetes mellitus and a transient ischaemic attack (TIA).

He has a body mass index of 32 kg/ m^2 and has a 24 pack-year history of smoking, having ceased smoking when he suffered the TIA four months ago.

His medications include

clopidogrel 75mg daily
rosuvastatin 10mg daily
perindopril 4mg mane
metoprolol 25mg bd
metformin 1000mg bd

How will you assess this man's risk of spinal cord injury during this procedure?

KEY POINTS COVERED:

Assessment and discussion of risk for spinal cord injury
Anaesthetic plan focused on spinal protection and management of stent deployment.
Assess and manage postop leg weakness (one side)

VIVA 16 PASS RATE 86.0%

You are called to assess a 40-year-old woman in the surgical ward while working as the evening on-call anaesthetist.

The patient has had an anterior cervical discectomy and fusion (ACDF) for cervical radicular symptoms caused by C5/6 disc prolapse. The operation was completed six hours ago with 500mL of blood loss.

You have been asked to review the patient because of increasing neck pain.

Medications:

paracetamol	1g orally q6h
ibuprofen	400 mg orally q8h
pregabalin	75 mg orally q12hh
oxycodone-with-naloxone	controlled-release 20/10 mg orally q12h
oxycodone	5 to10mg orally q4h

How would you assess this patient with increasing neck pain?

KEY POINTS COVERED:

- Assessment and diagnosis of neck haematoma
- Develops airway obstruction at induction
- Management of awareness