

ANZCA FINALS MCQ AUGUST 2016 – remembered

1) A 120kg lady 34/40 is admitted to the ward with threatened pre-term labour. What dose of s/c Clexane do you prescribe her for thromboprophylaxis?

- a) 20mg D
- b) 40mg D
- c) 60mg D**
- d) 100mg D
- e) 120mg D

I give up, I have spent 40 mins trying to find this written in some guideline and can't

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4252202/> suggests 40 bd

<http://www.surgicalcriticalcare.net/Guidelines/Venous%20thromboprophylaxis%20in%20obesity%202016.pdf> also suggests 40 bd

2) What is the arrangement of 3 lead ECG:

- a) Left arm – black, right arm – white, left leg – green
- b) Left arm – red, right arm – white, left leg – black
- c) Left arm – black, right leg – white, left leg – red
- d) Left arm – black, right arm – white, left leg – red**
- e) Left arm – black, right arm – white, right leg – red

3) What is your aim for systolic blood pressure in a closed head injury

- a) 80 mmHg
- b) 90 mmHg
- c) 100 mmHg
- d) 110 mmHg
- e) 120 mmHg**

definitely published that <90 SBP = worse outcomes

Can't find actual guideline but makes sense if want CPP 60 therefore map >80 as per ceaccp  
[J Trauma Acute Care Surg. 2012 May;72\(5\):1135-9. doi: 10.1097/TA.0b013e31824af90b.](#)

**Systemic blood pressure targets closer to 120 mm Hg may be more efficacious in minimizing secondary insults and particularly useful in settings without invasive intracranial monitoring capabilities.**

4) The vocal cords are lax after an LMA anaesthetic. What nerve has been injured?

- a) Superior laryngeal**
- b) Inferior laryngeal
- c) Recurrent laryngeal
- d)
- e)

5) What is the 1<sup>st</sup> line treatment of a young man in ED with recently diagnosed phaeochromocytoma who has presented with severe hypertension and tachycardia? He is not on any current treatment.

- a) Esmolol
- b) Phentolamine**
- c) Phenoxybenzamine
- d) GTN
- e)

6) What is the safest duration between ceasing Ticagrelor and performing a neuraxial block?

- a) 1 day
- b) 3 days
- c) 5 days

d) 7 days

e)

7) You are a consultant anaesthetist asked to help a junior registrar who is having difficulty siting a labour epidural. In assisting them site the epidural all you do is place on sterile gloves. This is known as a:

a) Slip

b) Lapse

c) Violation

d) Deviation

e) ?Mistake

8) You are called to assist a registrar in the next theatre who is having difficulty intubating a patient. On arrival, the nurse tells you he has been trying for 5 minutes and you notice the sats are 70%. You place an LMA easily and ventilate the patient back to normal saturations. According to Crisis Resource Management principles, the error the registrar was displaying is...

a) Fixation error

b) Failure to use cognitive aids

c)

d)

e)

9) What is not a feature of Horner's Syndrome?

a) Exophthalmos

b) Anhydrosis etc

c) Miosis

d)

e)

10) Given a series of PFT's all approximately in the 80%<sub>s</sub>. DLCO 102%. What is the diagnosis?

a) Asthma

b) Emphysema

c) Fibrosis

d) Pulmonary hypertension

11) Unilateral lumbar sympathetic block. Most likely side effect?

a) Genitofemoral neuralgia

b) Hypotension

12) Troponin rise in SAH occurs in what percentage of patients?

a) 5-15%

b) 15-30%

c) 30-45%

d) 45-60%

e) 60-75%

<http://oajl.net/articles/2016/3064-1455615411.pdf> - says elevated trop in up to 68% of SAH  
shitty random article from google search though, can't find figure in any of the usual txts

random notes from 2014b say 15 – 30%

13) Accidental needlestick injury with a hollow bore needle. Likelihood of Hepatitis C transmission?

a) 0.3%

b) 2%

c) 10%

- d) 20%
- e) 30%

1.8% CDC <https://www.cdc.gov/hepatitis/hcv/hcvfaq.htm#section2>

14) Emergence delirium in paediatric patients occurs most commonly after what type of surgery:

- a) Adenotonsillectomy
- b) Circumcision
- c) Closed reduction of fracture
- d) Colonoscopy
- e) Inguinal hernia repair

15) The Pin Index System for nitrous oxide on a size C cylinder:

- a) 1, 5
- b) 1, 6
- c) 2, 5
- d) 3, 5
- e) 3, 6

Air 1,5

O<sub>2</sub> 2,5

N<sub>2</sub>O 3,5

CO<sub>2</sub> 1,6

Entonox single centre

16) 70 year old male in the emergency department with a ?small bowel obstruction. On candesartan, an NSAID and a diuretic. His serum potassium is 7.0mmol/L. What is the first/initial step for lowering his potassium?

- a) Slow IV injection of 10ml calcium gluconate 10%
- b) Salbutamol 5mg nebuliser
- c) 15IU insulin in 50ml of 50% dextrose
- d) Sodium bicarbonate 50ml
- e) Calcium resonium

17) A patient has a tumour of some sort. He is hypokalaemic and has a metabolic alkalosis. What is the tumour most likely secreting?

- a) Adrenocorticotrophic hormone
- b) Antidiuretic hormone
- c) Parathyroid-type secreting hormone
- d) Glucocorticoid
- e) Thyroid stimulating hormone

18) The nerve integrity monitor (NIM) endotracheal tube works by monitoring:

- a) Electromyography of internal laryngeal muscles
- b) Recurrent laryngeal nerve action potential
- c) Movement of the vocal cords on the endotracheal tube
- d) Pressure of the vocal cords on the endotracheal tube
- e) Recurrent laryngeal nerve action potential

I'm pretty sure its C – its testing RLN function by measuring movement of cord on tube, its not actually monitoring the action potential..

19) External and internal diameter of the common gas outlet

- a) 30mm and 15mm
- b) 22mm and 15mm
- c) 30mm and 20mm

- d) 32mm and 20mm
- e)

20) Adult male is anaesthetised with a CVC in situ. Just before the surgeon starts the Line Isolation Monitor alarms about a leak of 5mA. What do you do?

- a) Check the diathermy pad
- b) Ensure the patient is earthed/grounded
- c) Unplug the CVL to isolate the patient until the fault is identified
- d) Sequentially remove non-essential monitors from the circuit until the fault is identified**
- e) Stop the procedure and move the patient to a safe location

but should read non essential electrical devices cos the culprit might not be a monitor. LIOM doesn't protect from microshock anyway, if leak was <5miliamp but >10microamp you could still get microshock but alarm doesn't sound – this is always happening! CVC should be cardiac protected equipment anyway (<doesn't allow leak >50 microamps). There is also some discussion on blackbank about if you touch the cvc to disconnect it you could cause microshock.

21) In a patient with rheumatoid arthritis, what is the most common direction of atlantooccipital subluxation?

- a) Anterior**
- b) Posterior
- c) Vertical
- d) Rotatory
- e) Lateral

22) An interosseus aspiration is least accurate for measuring:

- a) Albumin
- b) Creatinine
- c) Chloride
- d) Sodium
- e) Potassium**

[http://www.archivesofpathology.org/doi/10.1043/2009-0381-OA.1?url\\_ver=Z39.88-2003&rfr\\_id=ori:rid:crossref.org&rfr\\_dat=cr\\_pub%3dpubmed&code=coap-site](http://www.archivesofpathology.org/doi/10.1043/2009-0381-OA.1?url_ver=Z39.88-2003&rfr_id=ori:rid:crossref.org&rfr_dat=cr_pub%3dpubmed&code=coap-site)

[url\\_ver=Z39.88-2003&rfr\\_id=ori:rid:crossref.org&rfr\\_dat=cr\\_pub%3dpubmed&code=coap-site](http://www.archivesofpathology.org/doi/10.1043/2009-0381-OA.1?url_ver=Z39.88-2003&rfr_id=ori:rid:crossref.org&rfr_dat=cr_pub%3dpubmed&code=coap-site)

## **New Study of Intraosseous Blood for Laboratory Analysis**

**Larry J. Miller, MD, Thomas E. Philbeck, PhD, Diana Montez, RN, BSN, and Cathy J. Spadaccini, MD**

For chemistry values, there was a significant correlation between IV and IO samples for glucose, BUN, creatinine, chloride, total protein, and albumin concentrations. There was no correlation for sodium, potassium, CO<sub>2</sub>, and calcium concentrations. Despite no correlation between IV and IO blood, IO sodium values were within 5% of the mean for the IV draws, and calcium values were within 10%. Creatinine, potassium, and CO<sub>2</sub> concentrations were within 25%. See [Tables 1](#) and [2](#) for correlation coefficient analysis and mean laboratory value results and [Figures 1](#) and [2](#) to view data points with regression lines for laboratory values with significant correlations.

23) You are called to assist your registrar who is administering an interscalene nerve block. After injection of 2ml 0.75% ropivacaine the patient has a grand-mal seizure. The local anaesthetic has likely been injected into the:

- a) Dural cuff
- b) Internal jugular vein
- c) Internal carotid artery
- d) External jugular vein
- e) Vertebral artery**

24) A patient has an above the elbow ulnar nerve palsy following a procedure. They

- a) Reduced sensation of posterior arm
- b) Arm held in persistent supination
- c) Unable to flex wrist
- d) Weakness of thumb abduction
- e) Weakness of finger adduction

25) You've been asked to set up an outside area recovery room. All of the following are essential in each bay except:

- a) ECG
- b) Sphygmomanometer
- c) Stethoscope
- d) Pulse oximetry
- e) Thermometer

26) Praecordial thump

- a) Monitored ventricular fibrillation with no immediately available defibrillator
- b) Monitored ventricular tachycardia with no immediately available defibrillator

27) Patient asked to look straight ahead. Picture of eyes with lateral deviation of right eye. What is his abnormality?

- a) CN II palsy
- b) CN III palsy
- c) CN IV palsy
- d) CN V palsy
- e) CN VI palsy

medial rectus failing

28) A 63 yo lady has known chronic atrial fibrillation, hypertension, previous stroke, type 2 diabetes. What is her annual stroke risk if she is not on anticoagulation?

- a) 1.3%
- b) 4.0%
- c) 5.8%

5.8% closest

CHADS2 - 4 = 8%, CHA2DS2VASc 5 = 6.7%

29) A patient with cardiac disease gets short of breath moving around their house. What is their New York Heart Association classification?

- a) Class I
- b) Class II
- c) Class III
- d) Class IV
- e) Class V

30) Patient having resection of a lesion from the lateral border of their lower right lip. The surgeon does not want to perform local infiltration and the patient refuses a GA. Which nerve will you block?

- a) Infraorbital
- b) Mental

31) The afferent limb of the oculocardiac reflex is mediated by:

- a) Long and short ciliary nerves
- b) Facial nerve
- c) Vagus nerve
- d) Optic nerve
- e) Ophthalmic nerve

A rude question. Both screen shots below from paediatric txts – long and short ciliary via ophthalmic division of trigeminal nerve ? answer a best then

### 1. ANSWER: D

The **oculocardiac reflex** consists of both an afferent limb that is trigeminal and an efferent limb that is vagal. Pressure on the globe, the conjunctiva, or other orbital structures or traction on the extraocular muscles triggers afferent nerve impulses in the **ophthalmic division of the trigeminal nerve**, which is often referred to as  $V_1$ . The afferent impulses then travel through the **short ciliary nerves or the long ciliary nerves** to the **ciliary ganglion** and then pass to the trigeminal or gasserian ganglion. The afferent impulses terminate in the main sensory nucleus of the trigeminal nerve located in the floor of the fourth ventricle.

The efferent limb originates in the dorsal nucleus of the vagus. The **dorsal nucleus of the vagus** is located in the central gray matter of the caudal medulla and is also on the floor of the fourth ventricle. The efferent impulse then travels via the vagus nerve to the sinoatrial and atrioventricular nodes of the heart. The **oculocardiac reflex** tends to produce **sinus bradycardia** but can also produce a broad spectrum of **dysrhythmias**, including junctional rhythms, atrioventricular block, ventricular bigeminy, idioventricular rhythm, ventricular tachycardia, and asystole.

**FIGURE 32-3** Traction on the extraocular muscles elicits the **oculocardiac reflex**. **A**, The afferent limb consists of the **long and short ciliary nerves**, which synapse in the **ciliary ganglion** (dotted arrows). The ophthalmic division of the trigeminal nerve (cranial nerve V) carries the impulse to the gasserian ganglion, and the arc continues to the sensory nucleus of cranial nerve V in the brainstem. Fibers in the reticular formation synapse with the nucleus of the vagus nerve (cranial nerve X). Efferent fibers from the vagus nerve terminate in the heart (dashed arrow). The neurotransmitter from the vagus nerve to the sinoatrial node is acetylcholine, and the reflex is blocked by antimuscarinic pharmacologic agents (i.e., atropine and glycopyrrolate). **B**, Electrocardiogram shows conversion from normal sinus rhythm to a nodal rhythm.

32) Patient's core temperature drops 1 degree 20 minutes after induction of general anaesthesia. What is the most likely cause:

- a) **Redistribution from core to peripheries**
- b) Radiation
- c) Conduction from body to operating table/bed
- d) Evaporation

33) Well child for closed reduction of a fracture sustained 2 days ago. Well controlled asthma (on inhalers), current URTI. Chest sounds clear, systemically well. What is the best option for managing his airway?

- a) Controlled ventilation via ETT
- b) Spontaneous ventilation via ETT
- c) **Spontaneous ventilation via face mask**
- d) Spontaneous ventilation via Laryngeal Mask Airway
- e) Spontaneous ventilation via Proseal Laryngeal Mask Airway

34) Pressure comparison, list in order from highest to lowest (different combos of 10 kPa/10 atm/10 psi/10 mmHg/10 cmH<sub>2</sub>O)

cmH<sub>2</sub>O < mmHG < KPA < PSI < atm

35) How much fibrinogen will it take to increase fibrinogen by 1g/L

- a) 1ml/kg
- b) 5ml/kg
- c) 10ml/kg
- d) 20ml/kg
- e) 30ml/kg

if question is talking about FFP

36) Time taken for plasma and brain equilibration of methadone

- a) 3 minutes
- b) 8 minutes
- c) 20 minutes
- d) 60 minutes
- e) 120 minutes

I want to punch this question in the face. Massive interindividual variation. I feel the answer will be a one liner nestled in some first part rubbish like stoelting. I have word searched ANZCA scientific evidence book with no luck

37) Septic elderly patient with multiorgan failure requiring laparotomy for suspected dead gut. INR 2.1, Hb 90, Platelets 105, Fib 4 (?or 1.5). What products to give?

- a) 2 units FFP, 1 unit platelets
- b) 2 units FFP, 1 unit blood
- c) 50IU/kg Prothrombinex to correct INR
- d) Platelets
- e) Fibrinogen to aim fib >2

38) BIS change when suxamethonium given to an awake patient:

- a) Decrease
- b) Increase
- c) Increase then decrease
- d) Decrease then increase
- e) Nothing

tricked me at first – BIS can't increase in awake patient. EMG did increase initially though [http://bjaoxfordjournals.org/content/115/suppl\\_1/i95/F1.expansion.html](http://bjaoxfordjournals.org/content/115/suppl_1/i95/F1.expansion.html)

39) Drug least likely to interfere with MEP monitoring during scoliosis surgery

- a) N<sub>2</sub>O
- b) Non-depolarising neuromuscular blocker
- c) Opioids
- d) Propofol
- e) Volatile

40) According to NAP4: incidence of failed cricothyroidotomy

12/19 = 63%

41) Morbidly obese lady in ICU with pneumonia, elective tracheostomy placed 8 hours ago. On rolling for pressure care, started desaturating and you suspect dislodgement of the tracheostomy. What is your immediate management?

- a) Readvance tracheostomy over gum elastic bougie
- b) Use fiberoptic bronchoscope
- c) Intubate from the mouth
- d) Insert airway exchange catheter
- e) Perform needle cricothyroidotomy

42) A 53 year old man is having major urological surgery. The surgeon asks you to give methylene blue to help avoid ureteric injury. What drug interacts with methylene blue?

- a) Droperidol
  - b) Prazocin
  - c) Fluoxetine
  - d) Oxybutynin
  - e) Risperidone
- C - fluoxetine - risk of serotonin syndrome

43) You review a patient 12 hours post right pneumonectomy on the ward. He is hypoxic, distressed with distended neck veins. What is the best IMMEDIATE management?

- a) Clamp chest tube to prevent more air leak
- b) Place patient left lateral
- c) Place another chest tube on the right side
- d) Perform urgent pericardiocentesis
- e) Urgently transfuse 2 units packed red blood cells

not sure if it should be a or b, miller only mentions b in the 'cardiac herniation' paragraph

44) What is a positive endotracheal tube cuff leak test?

- a) >110ml leak with cuff deflated
- b) >110ml leak with cuff inflated
- c) Audible leak with cuff deflated
- d) No audible leak with cuff deflated
- e) No audible leak with cuff pressure <30cm H<sub>2</sub>O

LITFL:

>110 mL difference in expiratory tidal volumes before and after cuff down has NPV 98% for post-extubation stridor in the original study by Miller and Cole (essentially rules it out)

45) Horner's syndrome results from blockade of which structure?

- a) Ciliary ganglion
  - b) Stellate ganglion
  - c) Pterygopalatine ganglion
  - d) Otic ganglion
  - e) Submandibular ganglion
- B - stellate ganglion

46) According to PS09, the minimum requirement for administering propofol for conscious sedation is

- a) Medical practitioner with a skilled assistant that is separate from the assistant to the proceduralist
- b) Medical practitioner
- c) Nurse supervised by proceduralist with recent ALS training
- d) Specialist anaesthetist
- e) Nurse with advanced airway skills

47) The characteristic respiratory pattern in a patient with an acute C5 spinal cord injury is

- a) Rapid respiratory rate
- b) Arterial hypoxaemia
- c) Chest wall immobility
- d) Preserved cough
- e) Preserved inspiratory force

48) What is the mechanism of central sensitisation?

- a) Increased intracellular magnesium
- b) Antagonism of the NMDA receptor
- c) Glycine is the major neurotransmitter involved
- d) Recurrent  $\alpha$ -delta fibre activation
- e) Alteration in gene expression

49) What is the reason infants desaturate faster than adults on induction with rapid sequence intubation?

- a) More difficult to preoxygenate
- b) More rapid detection of hypoxia
- c) FRC decreased more than adults
- d) Drugs work more rapidly
- e) Persistent R to L shunt

just want to check u guys agree – the wording of this question in other exams is different but in this case I think c correct – FRC drops more in kids cos its below closing volume..

50) A woman complains of paraesthesia in her hands when hanging out the washing. She also has muscle wasting on her hands and a weak radial pulse. What is the most likely diagnosis?

- a) Thoracic outlet syndrome
- b) Brachial plexus injury
- c) Paraneoplastic syndrome
- d) Lupus
- e) Coarctation of the aorta

51) A neonate is born floppy and apnoeic. They do not start breathing following stimulation. What FiO<sub>2</sub> should you initially perform bag-mask ventilation with?

- a) 0.21
- b) 0.3
- c) 0.5
- d) 0.7
- e) 1

52) Which would be consistent with deep partial thickness burns?

- a) Pain to deep pressure only, decreased capillary refill
- b) Blanches to pressure, very painful
- c) Painful to air, red and wet, blanches to pressure
- d) Not painful, does not blanch

53) Background radiation is 2.5mSv per annum. How much ionising radiation in a CTPA?

- a) 0.15mSv
- b) 0.5mSv
- c) 5mSv
- d) 15mSv
- e) 50mSv

found lots of things said 10mSV, this NSW gov factsheet = says > 10mSv

[http://www.aci.health.nsw.gov.au/\\_\\_data/assets/pdf\\_file/0006/174552/MI-Clinician-Factsheet.pdf](http://www.aci.health.nsw.gov.au/__data/assets/pdf_file/0006/174552/MI-Clinician-Factsheet.pdf)

54) You assist a junior to do spinal. Instead of gown and gloving, you put on gloves. What category of error is this?

- a) deviation
- b) lapse
- c) mistake
- d) slip
- e) violation

55) Difficult intubation least likely in

- a) Apert syndrome
- b) Down's syndrome
- c) Hurler syndrome
- d) Pierre Robin syndrome
- e) Treacher Collins's syndrome

te) found this which suggests apert.. <http://www.frca.co.uk/Documents/250%20The%20Difficult%20Paediatric%20Airway.pdf>

56) The following have been found to decrease the incidence of spinal cord ischaemia EXCEPT

- a) CSF drainage
- b) high dose IV methylprednisolone
- c) maintaining MAP > 80
- d) monitoring motor evoked potentials
- e) preop identification of intercostal lumbar arteries supplying artery of Adamkiewicz

57) The musculocutaneous nerve is difficult to block because

- a) arises from C6
- b) arises from lateral head of median nerve
- c) arises from medial head of median nerve
- d) congenitally absent in 10% of the population
- e) located outside the axillary sheath

58) 0.5mg/kg mannitol for kidney transplant

- a) increases survival of graft
- b) increases renal tubular necrosis
- c) reduces post-transplant dialysis requirements
- d) no change in urine output

ceaccp – mannitol a review of its clinical effects

59) According to the ATACAS trial, aspirin causes

- a) increased red blood cell transfusion
- b) increased platelet transfusion
- c) increased return to theatre for hemorrhage
- d) no change in myocardial infarct
- e) reduced rate of thromboembolic events
- f) ?no increase in the risk of bleeding

60) SAH, delayed ischaemia most common

- a) 24-28 hours
- b) 4-10 days
- c) 10-14 days
- d) 14-21 days

61) In RBC transfusions in Aus/NZ, the most common infection transmitted:

- a) hep A
- b) hep B
- c) hep C
- d) HIV 1
- e) HIV 2

<http://resources.transfusion.com.au/cdm/ref/collection/p16691coll1/id/883>

62) 52. repeat Aug 15 You suspect your patient just had anaphylactic reaction. The optimal time to take blood for tryptase estimation

- a) within 15min of onset of event

- b) 1-3 hours after event
- c) 3-6 hours after event
- d) 6-12 hours after event
- e) 24 hours after event

63) 66 year old with moderate AS (AV area 1.1cm<sup>2</sup>). You see him in preadmission clinic for elective THR. Aside from mild dyspnoea on exertion, he is asymptomatic. What is appropriate management?

- a) accept for surgery
- b) beta block and accept for surgery
- c) organise myocardial perfusion scan
- d) postpone until AV replacement
- e) postpone until percutaneous aortic valvotomy

just want to check u guys agree

64) Glycine irrigation is required for TURP if the resection is performed with

- a) greenlight laser
- b) helium laser
- c) monopolar laser
- d) Nd:Yag laser
- e) plasma kinetic diathermy

65) 56yo male with chronic T6 injury undergoes cystoscopy and TURBT under GA. In PACU, he is hypertensive, bradycardic has chest tightness and is sweating. Most likely cause:

- a) blocked catheter
- b) fluid overload
- c) myocardial ischaemia
- d) perforated bladder
- e) serotonin syndrome

66) You see your trainee self-injecting propofol while at work. What is the best immediate action?

- a) notify trainee's next of kin
- b) notify medical board
- c) notify trainee's supervisor of training
- d) relieve trainee of clinical duties
- e) terminate trainee's employment

67) Man undergoing transcatheter aortic valve replacement, ECG shown with two broad complex beats (LBBB pattern) and clear p waves approx. Rate of 100 but no ventricular beats. What is the best way of managing this (I think it was [this ECG](#), but correct me please if I am wrong. complete heart block --> p-wave systole (aka ventricular standstill -- CPR was NOT an option)

"

- a) atropine
- b) external pacing
- c) adrenaline
- d) isoprenaline
- e) transvenous pacing

68) Risk of anaphylaxis recurring post-rocuronium anaphylaxis is greatest with

- a) atracurium
- b) cisatracurium
- c) pancuronium
- d) vecuronium
- e) none, as cross sensitivity is unpredictable

69) 60. elderly undergoing orthopaedic surgery for acute hip fracture requires thromboprophylaxis in the perioperative period. Best pharmacological option:

- a) LMWH or aspirin
- b) LMWH or unfractionated heparin
- c) LMWH or fondaparinux**
- d) UFH or fondaparinux
- e) unfractionated heparin or warfarin

I thought the answer was so obviously b that I was suspicious and looked up therapeutic guidelines – it says c! wtf? Is this news to everyone else, I feel I've missed something here..

70) Spirometry can measure

- a) TLV
- b) RV
- c) FRC
- d) TLC
- e) VC**

71) Pulmonary function tests:

FEV1 82% predicted  
FVC 86% predicted  
FEV1/FVC 81% predicted  
FEV25-75 80% predicted  
TLC 81% predicted  
RV 94% predicted  
DLCO 102% predicted  
MVV 42% predicted  
What is the diagnosis?

- a) asthma**
- b) emphysema
- c) interstitial fibrosis
- d) myasthenia gravis
- e) pulmonary hypertension

72) 27 weeks gestation. BP 165/105. Best treatment:

- a) atenolol
- b) candesartan
- c) labetalol**
- d) magnesium sulphate
- e) nifedipine

<https://www.nice.org.uk/guidance/cg107/chapter/1-Guidance#management-of-pregnancy-with-pre-eclampsia>

73) 40 year old short of breath (flow-volume loop shown)

- a) artefact of equipment failure
- b) fixed intra and extra thoracic obstruction
- c) normal
- d) variable extrathoracic obstruction**
- e) variable intrathoracic obstruction

74) Post dental surgery, resident prescribes 1L 0.9% saline + 5% dextrose. Registrar asks if he should amend the order?

- a) no, maintain oncotic activity
- b) no, prevent hyponatraemia**
- c) only if child >2 years old
- d) yes, will cause hyperglycaemia
- e) yes, fluid is hypertonic

75) 87yo for selective neck dissection for laryngeal cancer with musculocutaneous flap repair. He is awake and sitting up. BP 120/70. Flap capillary refill time <1sec. What is best management?

- a) IV fluid bolus
- b) intra-arterial streptokinase
- c) IV dextran 40
- d) IV heparin
- e) Re-explore flap surgically

?? agree – good to give post op as decrease plt adhesives and FVIII activity, beware if bleeding though.

<http://www.frea.co.uk/article.aspx?articleid=100376>

76) 120kg lady needs DVT prophylaxis. What dose?

- a) 40mg daily
- b) 60mg daily
- c) 80mg daily
- d) 100mg daily
- e) 120mg daily

same as question 1

77) 75. During CPR, What percentage of pre-arrest cardiac output is achieved by effective external cardiac compression?

- a) <20
- b) 20-30
- c) 40-50
- d) 60-70
- e) >70

random google, any advances on this?

<http://crashingpatient.com/resuscitation/bcls-acls-cardiac-arrest-care.htm>

78) Patient is nil by mouth. 2L Hartmann's, 1L NS over 24 hours. How much Na in mmol did he receive?

- a) 390
- b) 410
- c) 430
- d) 440
- e) 460

Hartman 131, NaCl 154 = 416

79) What characteristic of local anaesthetic influences or increases duration of nerve block?

- a) lipid solubility
- b) molecular weight
- c) pKa
- d) presence of amide bond
- e) protein binding

pka – onset, lipid solubility – potency, PPB – duration

80) Latest guidelines regarding Breast milk:

- a) Discard 12 hours post procedure
- b) discard 24 hours post procedure
- c) discard 1st feed

- d)discard first 2 feeds
- e)discarding not required

no idea what guidelines anzca refer to  
[http://www.bimed.org/Media/Files/Protocols/Protocol\\_15\\_revised\\_2012.pdf](http://www.bimed.org/Media/Files/Protocols/Protocol_15_revised_2012.pdf) 2012

81) Stabbing injury to lateral half of spinal cord. What are the classical signs 3 segments below lesion?

- a)ipsilateral loss of light touch sensation, contralateral loss of temperature sensation
- b)ipsilateral loss of motor, contralateral loss of light touch sensation
- c)ipsilateral loss of pain sensation, contralateral loss of light touch sensation
- d)ipsilateral loss of pain sensation, contralateral loss of motor
- e)ipsilateral loss of temperature sensation, contralateral loss of pain sensation

82) Dental extraction of right lower 3rd molar (48). Patient complains of paraesthesia to the chin. This is most likely neuropraxia to

- a)glossopharyngeal n
- b)inferior alveolar n
- c)lingual n
- d)long buccal nerve
- e)mental nerve

pg 1095 moores anatomy – inf alveolar nerve runs below molar's, ? only called mental nerve once it goes through mental foramen. Mental nerve supplies sensation to chin but think its damaged before it gets to this branch. Didn't find it written anywhere, just my assumption from looking at pics  
lingual nerve gets damaged

83) 85 yo for ORIF NOF. No medical past history. Exam normal. FBE, Electrolytes, ECG yesterday normal. Now in rapid AF with ventricular rate 110-145. BP 130/80. Best management:

- a)amiodarone
- b)direct current cardioversion after induction
- c)digoxin
- d)heparin
- e)metoprolol

But are you supposed to cardiovert given its <48 hrs? prob not as she's old so prob has paroxysmal af and is stable anyway

84) Sub-Tenon block. Which muscle is most likely to be missed

- a)internal oblique
- b)lateral rectus
- c)medial rectus
- d)superior oblique
- e)superior rectus

85) Adenosine can be used to terminate an arrhythmia due to:

- a) Atrial fibrillation
- b) Atrial flutter
- c) WPW
- d) VT
- e) Torsades

Just want your thoughts – brew and I spent a bit of time trying to figure this out, I always thought you shouldn't give WPW adenosine but apparently you can if they have SVT, but you can't if they have af/flutter – LITFL video

86) PA CXR. What is enlarged (CXR with enlarged LA)

- a) aorta
- b) LA
- c) LV
- d) RA
- e) RV

gives appearance of extra right heart border

[http://www.radiologymasterclass.co.uk/tutorials/chest/chest\\_pathology/chest\\_pathology\\_page8#top\\_4th\\_img](http://www.radiologymasterclass.co.uk/tutorials/chest/chest_pathology/chest_pathology_page8#top_4th_img)

87) The following are consistent with acute systemic inflammatory response except

- a) hypotension
- b) hypothermia
- c) leukopenia
- d) tachycardia
- e) tachypnea

88) A patient undergoing elective coiling of cerebral aneurysm has an abrupt rise in MAP. This is most likely due to

- a) acute hydrocephalus
- b) contrast reaction
- c) embolic complication
- d) vascular rupture
- e) vessel thrombosis

89) A patient with a haemopneumothorax has a chest drain in situ. The chest drain is attached to a 3 bottle underwater seal drain apparatus, and the system is attached to the wall suction at -80cmH<sub>2</sub>O. Omission of water from the wet suction bottle of this apparatus will cause

- a) excessive negative pressure in the water seal bottle, resulting in loss of the water seal
- b) failure of the water seal chamber to oscillate
- c) inability to apply negative pressure to the pleural cavity
- d) possible return of drain contents into the pleural space
- e) re-expansion pulmonary oedema

90) A multicentre trial reports that using N<sub>2</sub>O as part of general anaesthesia has a relative risk of morbidity of 0.96 (95% confidence interval 0.82-1.13). This means

- a) there is 95% confidence that N<sub>2</sub>O is assoc with an increased risk of morbidity
- b) the result is significant as the confidence interval range is very small
- c) the sample mean has a 95% chance of being between 0.82 to 1.13
- d) the study size was not large enough to find a difference
- e) the true relative risk has a 95% chance of being between 0.82 to 1.13

91) 125. Following donation after cardiac death, the maximum warm ischaemic time acceptable for procuring the lungs is

- a) 30min
- b) 45 min
- c) 60min
- d) 90min
- e) 120min

<http://www.donatelife.gov.au/sites/default/files/files/DCD%20protocol%2020020311-0e4e2c3d-2ef5-4dff-b7ef-af63d0bf6a8a-1.PDF>

92) R) lower lip 10mm cancer. Surgeon doesn't want to infiltrate the area with local anaesthetic. Patient refuses general anaesthetic. Which block do you need to do?

- a) facial n
- b) hypoglossal n

- c) infraorbital n
- d) lingual n
- e) mental n

93) 63 yo right pneumonectomy for malignancy. 12 hours post op, profound hypotensive and shock. Raised CVP. Immediately:

- a) clamp any open chest drains to minimise leak
- b) insert new chest drain on operative side
- c) perform urgent pericardiocentesis
- d) place patient in L) lateral position**
- e) urgently transfuse 2 units of packed blood cells

**same as q 43**

94) Open AAA repair, best method to reduce risk of renal impairment?

- a) Sodium bicarbonate
- b) N-acetylcysteine
- c) Maintaining intravascular volume
- d) Minimise cross clamp time**
- e) ?mannitol

**I prob think this rather than maintain volume? But not sure**

95) You give a transfusion of 1u PRBC. What is the maximum duration of time in which it must be completed?

- a) 2 hours
- b) 4 hours**
- c) 6 hours
- d) 8 hours
- e) 10 hours

pg 36

[https://www.anzsb.org.au/data/documents/guidelines/ANZSBT\\_Guidelines\\_Administration\\_Blood\\_Products\\_2ndEd\\_Dec\\_2011\\_Hyperlinks.pdf](https://www.anzsb.org.au/data/documents/guidelines/ANZSBT_Guidelines_Administration_Blood_Products_2ndEd_Dec_2011_Hyperlinks.pdf)

96) Patient with chronic liver failure. Coagulation factor least likely to be affected:

- a) I
- b) VII
- c) VIII**
- d) XII
- e)

97) An 80 year old man undergoes a unilateral lumbar sympathetic blockade. The most likely side effect that he experiences is:

- a) Genitofemoral neuralgia**
- b) Haematuria
- c) Postural hypotension
- d) Lumbar radiculopathy
- e) Psoas haematoma

98) Patient having a craniotomy, MAP 80, CVP 5. Both transducers are at the level of the heart, 13cm below the level of the tragus. What is the CPP?

- a) 60mmHg
- b) 65mmHg**
- c) 70mmHg
- d) 75mmHg
- e) 80mmHg

CPP = MAP – CVP = 70-5. CVP should be measured at heart

99) Urosurgical procedure. Surgeon wants to give methylene blue. This is contraindicated if patient is taking:

- a) Fluoxetine
- b) Droperidol
- c) Risperidone
- d) Oxybutinin
- e) Prazosin

100) You are the anaesthetist at a Caesarean Section for a 36/40 gestation pregnancy. The baby at birth is floppy and apnoea. You decide that positive pressure ventilation via mask is necessary. The recommended FiO<sub>2</sub> is:

- a) 0.21
- b) 0.4
- c) 0.6
- d) 0.8
- e) 1.0

101) 64 year old male in preoperative clinic. HR 60. Free T<sub>4</sub> is normal. TSH high. This is consistent with:

- a) non compliance with thyroxine treatment
- b) autoimmune thyroiditis
- c) sick euthyroid
- d) previous hypophysectomy
- e) subclinical hyperthyroidism

if e was subclinical hypothyroidism it would be e. Mayb answer is autoimmune thyroiditis that has been treated? Would your TSH stay high?

102) Patient receives 1 unit packed red blood cells. 1 hour later becomes hypoxic, febrile, higher airway pressure and copious frothy sputum.

- a) ABO incompatibility
- b) Sepsis
- c) Transfusion related overload
- d) Transfusion related acute lung injury
- e) Transfusion related sepsis

fever suggests TRALI BUT trail is a dx of exclusion. Good table with differences towards end of this power point

<http://www.seabb.org/wp-content/uploads/TACO-vs-TRALI.pdf>

103) What is the maximum Intralipid 20% dose?

- a) 6ml/kg
- b) 8ml/kg
- c) 10ml/kg
- d) 12ml/kg
- e) 14ml/kg

104) How many vials of dantrolene should be kept at a remote hospital which has general anaesthesia services?

- a) 2
- b) 6
- c) 12
- d) 24
- e) 36

105) Which volatile agent has the longest time to environmental degradation

- a) Desflurane
- b) Sevoflurane
- c) Isoflurane
- d) Enflurane
- e) Xenon

N2O longer but not an option (Des worse GWP than N2O though)

106) 20 yr old male 80 kg in a house fire sustained 25% burns. Using the Parkland formula, what is his fluid resuscitation requirement for the first 8 hours?

- a) 3L of 0.9% Normal Saline
- b) 3L of Hartmann's solution
- c) 3L of colloid
- d) 4L of 0.9% Normal Saline
- e) 4L of Hartmann's solution

107) 3 yr old child with # forearm, best way to valid pain assessment

- a) the reported severity from the child
- b) the reported severity from the parent
- c) the reported severity from the nursing staff
- d) using the FLACC scale
- e) the Wong-Baker Faces scale

108) Female singer underwent GA with LMA. Next day complains of voice/singing impairment. Nasendoscopy shows one vocal cord in the paramedian position. What nerve is affected?

- a) lingual
- b) hypoglossal
- c) glossopharyngeal
- d) recurrent laryngeal
- e) superior laryngeal

109) According to NAP4 what is the rate of failure for emergency cannula cricothyroidotomy?

- a) 10%
- b) 20%
- c) 40%
- d) 60%
- e) 80%

110) Blalock-Taussig shunt inserts into the right pulmonary artery, originating from the:

- a) Right subclavian artery
- b) IVC
- c) SVC
- d) Aorta
- e) Axillary artery

111) A patient has come in with TCA overdose. Wide QRS on ECG (Torsades). How do you treat them?

- a) calcium gluconate
- b) amiodarone
- c) lignocaine
- d) magnesium
- e) atropine

112) What protective mask to wear in laparoscopy for patient with disseminated TB

- a) N95
- b) P99
- c) R95
- d) None

e) Surgical mask

bendigo health prompt guidelines

113) According to the ARC, precordial thump is only indicated for:

- a) monitored pulseless VF if defibrillator not immediately available
- b) monitored pulseless VT if defibrillator not immediately available**
- c) unwitnessed cardiac arrest
- d) witnessed onset of asystole caused by AV conduction disturbance
- e) unwitnessed unmonitored cardiac arrest

114) Patient with a history of smoking. patient with stridor, waking him up from sleep. What investigations to do next?

- a)
- b) CT neck**
- c)
- d)
- e)

115) 4month old Term neonate, noted to have intermittent stridor a few days after birth, then parents also notice stridor during feeding and sleep. Otherwise normal and healthy. Most likely condition is:

- a) Cri-du-chat syndrome
- b) Laryngomalacia**
- c) Tracheomalacia
- d) Laryngocoele
- e) ? something to do with cord paralysis

116) You notice a fire from the anaesthetic machine. Which is the most useful extinguisher?

- a) CO<sub>2</sub>
- b) blanket**
- c) fire hose
- d) foam extinguisher
- e) wet chemical extinguisher

Just want to check you guys agree, I think dry chemical is answer if it were an option. Needs to be safe with flammable gas and electrics (ruling out CO<sub>2</sub> and wet chemical)

117) Randomised controlled trial means:

- a) Patients randomly allocated to treatment groups**
- b) Patients randomly allocated to treatment or placebo
- c) Patients allocated randomly to groups before treatment arms decided
- d) Neither the patient nor the investigator knows which group the patient is in

118) Young man in the emergency department. Opens his eyes to voice, removes his tie when instructed to and is speaking, but confused. What is his GCS?

- a) 10
- b) 11
- c) 12
- d) 13**
- e) 14

119) Patient with respiratory failure, low PaO<sub>2</sub>/FiO<sub>2</sub> ratio, cardiac index of 1.7, PCWP of 25. Which mode of ECMO would be most appropriate?

- a) VA
- b) VV**
- c) AV
- d)
- e)

120) What is the largest size suction catheter that can fit through a size 4.0 ETT?

- a) 6F
- b) 8F**
- c) 10F
- d) 12F
- e)

121) In an infant, the intercrystal line corresponds to

- a) L1-2
- b) L2-3
- c) L3-4
- d) L4-5
- e) L5-S1**

**ceaccp L5/S1, nysora L4/5 or L5/S1**

122) You are trialling a new drug for hypertension in one group of patients and comparing it to placebo (given to another group). In three months time you will measure the blood pressure and want to compare the two groups. Knowing that the sample is non-parametric, Which test would be most appropriate?

- a) Chi squared
- b) Fishers exact test
- c) Student's t-test
- d) Mann-whitney U test
- e) Bland Altman test

123) What is the best indication of fluid responsiveness

- a)
- b) BP change when legs are raised
- c)
- d)
- e)

124) What is the timing of peak respiratory depression post 300 mcg morphine intrathecally?

- a) < 3.5 hours
- b) 3.5 – 7.5 hours**
- c) 7 - 12.5 hours
- d) 12.5 -18 hours
- e) > 18 hours

ceaccp – onset of late resp dep 3.5 – 12 hr, peak at 6hr

125) Pregnant patient with BP 140/. What is indication for MgSO<sub>4</sub>?

- a) seizure prophylaxis
- b) anti-hypertensive
- c) foetal neuroprotection**
- d)
- e)

126) Maximum level of serum Mg after administration of MgSO<sub>4</sub>?

- a) 1 mmol/l
- b) 2 mmol/l
- c) 3 mmol/l
- d) 4 mmol/l
- e) 5 mmol/l

**??? What is this question asking?**

127) Patient with traumatic brain injury patient. Cerebral angiogram shows Cerebral perfusion = 15mL/100g/min, cerebral oxygen consumption 3.5mL/100g/min. This is consistent with:

- a) Cerebral hyperperfusion

- b) Reperfusion injury
- c) Cerebral ischaemia
- d) Appropriate autoregulation
- e) Cerebral vasoconstriction

*Normal perfusion = 50-54 mL/ 100g brain tissue/min; normal CMRO2 (awake brain) = 3.5mL/ 100g/min, reduced in coma/anaesthesia. 15ml blood carries 3ml O2 (assuming normal value 200ml of O2 per litre blood). Therefore ischaemia is the best choice.*

128) What is the mechanism of Trauma induced coagulopathy

- a) acidosis
- b) hypothermia
- c) endothelial damage from ischaemia
- d) dilution of coagulation factors from resuscitation fluids

all of the above. C is thought to be the cause of ATC (acute trauma coagulopathy). As per ceaccp article 'management of haemorrhage in major trauma'

TIC - trauma induced coagulopathy - due to all of following (its an umbrella term)

- ATC acute trauma coagulopathy, happens immediately before fluid given, due to (hypoperfusion), endothelial damage, protein c activation (inact V, VIII → anticoag, fibrinolysis, consumption and plt dysfunction)
- hypothermia
- acidosis
- dilution post volume resus

129) You are inserting a right internal jugular vein CVL. Why is it important to avoid turning the patient's head extremely to the left?

- a) Uncomfortable for the patient
- b) Increases risk of internal carotid artery puncture
- c) Compresses internal jugular vein and makes it more difficult to puncture
- d) Distorts the anatomy, making the vein more difficult to correctly identify
- e) Increases risk of external jugular vein puncture

<http://www.itca.co.uk/Documents/133%20Central%20Venous%20Cannulation.pdf>

ATOW says 'excessive turning changes relationship of artery and vein and can collapse vein'  
 ? does this imply C is the answer  
 my gut says b is the issue though

130) What happens with oxygen flush is pressed?

- a) oxygen 20-30L/min
- b) oxygen 50-70L/min
- c) oxygen and volatile at 20-30L/min
- d) oxygen and volatile at 50-70L/min

131) Intubation view: Little space between epiglottis and posterior pharyngeal wall. What is the modified C&L classification?

- a) 2A
- b) 2B
- c) 3A
- d) 3B
- e) 4

132) Relative contraindications to mediastinoscopy include

- a) Cervical spondylosis
- b) Emphysema

- c) Mediastinal lymphadenopathy
- d) Poor left ventricular function
- e) Superior vena cava syndrome

because venous distension increases risk of bleeding, other relative is severe c spine disease with reduced neck extension. NOT cervical spondylosis, this is just OA

133) Asystolic arrest adrenaline just given, how often do you give adrenaline?

- a) 2 min
- b) 3 min
- c) after 1 loop of ACLS algorithm
- d) after 2 loops of ACLS algorithm
- e)

134) Tumour lysis syndrome causes all of the following biochemical abnormalities EXCEPT:

- a) Hyperkalaemia
- b) Hypernatraemia
- c) Hyperphosphataemia
- d) Hyperuricaemia
- e) Hypocalcaemia

135) Balloon pump trace 1:2

- a) Early inflation
- b) Late inflation
- c) Early deflation
- d) Late deflation
- e) No problem

136) Healthy mother undergoing surgery 4 months post-partum. What are current recommendations regarding when to resume breast feeding post-surgery?

- a) 12 hours after procedure
- b) 24 hours after procedure
- c) Discard first feed post procedure
- d) Discard first two feeds post procedure
- e) No need to discard

same as q80

137) Complications of patient with anorexia nervosa include all except

- a) Cardiomyopathy
- b) Delayed gastric emptying
- c) Hypokalemia
- d) Hyperclacemia
- e) Prolonged QT

stoelting says all others are true

138) 8 year old boy under general anaesthetic, BP about 85/40. ECG trace given showing SVT. What is the appropriate treatment?

- a) IV Adenosine 100ug/kg
- b) IV Amiodarone 5mg/kg
- c) IV Esmolol 0.5mg/kg
- d) Sync DC Shock 1J/kg
- e) IV verapamil

139) 22. Propofol is a Category (...) drug in pregnancy: (gave the full definition of each category)

- a) A
- b) B1
- c) B2
- d) B3
- e) C

140) In a patient with severe hepatic fibrosis. An increased risk of life threatening haemorrhage is best indicated by:

- a) dysfibrinogenaemia
- b) hypoalbuminaemia
- c) portal HTN
- d) increased PT time
- e) thrombocytopenia

agree?

141) The Swan Ganz catheter is unreliable for measurements of Pulmonary Artery SBP and DBP due to length and compliance of tubing. This affects the measuring system by:

- a) decreasing resonant frequency
- b) decreasing frequency response
- c) decreasing damping coefficient
- d) inducing zero error
- e) inducing baseline drift

142) Woman for LUSCS. Allergic to Amoxicillin. Reaction is limited to a rash. For surgical antibiotic prophylaxis consider: (definitely said "consider")

- a) Cefazolin
- b) Cefoxitime
- c) Clindamycin
- d) Gentamicin
- e) Vancomycin

143) ROTEM picture asking what is the problem.

!

- a) Hyperfibrinolysis
- b)
- c)
- d)
- e)

144) In a patient taking dabigatran prior to surgery:

- a) Stop 7 days in advance
- b) Stop 3 days in advance
- c) Stop 3 days in advance and bridge with clexane
- d) Continue until day of surgery
- e) Check INR on day of surgery

145) In patients with an opioid PCA, adding a NSAID will reduce the rate of PONV by

- a) 5%
- b) 10%
- c) 15%
- d) 20%
- e) 25%

page 94 pain anzca book- reduced PONV with OR 0.70, not sure how to convert OR to RRR, is it just 30% (25% closest)

From black bank

145. Arteriolar dilatation occurs with

- A. Serotonin
- B. Angiotensin I
- C. Neuropeptide Y
- D. Endothelin
- E. Vasointestinal Peptide

Constrictors - neuropeptide Y, serotonin, endothelin, TXA, angiotensin II

Dilators - bradykinin, acetylcholine, VIP, cGRP, prostacycline, histamine

146. Which drug is best administered as a racemic mixture?

- A. Dexmedetomidine
- B. Morphine
- C. Methadone
- D. Bupivacaine
- E. Noradrenaline

147. Regarding a graded Dose-Response curve (note: question may have used a drug as clinical context)

- A. There is linearity between 20-80% of max response
- B. There is linearity between 20-80% of max dose
- C. Characteristics of the drug can be deduced by calculating the ED50 and the Hill coefficient
- D. The addition of a synergistic drug causes a right-shift of the curve
- E. [*Something I can't remember but didn't seem right*]

But should technically say EC50, ED 50 is for quantal (not graded) dose response curve. Cross and plunket pg 95