

## Feb 2015 MCQ

### 6. Repeat

Young man has removed his buprenorphine patch on the morning of surgery. What time till PLASMA reaches half original level

- A. 12 hours
- B. 18 hours
- C. 24 hours
- D. 30 hours
- E. 36 hours

*be careful! this question has been asked previously about both fentanyl and buprenorphine! read it carefully on the day!*

Bup patch: 12 hours = A. Bup takes about 3 days to reach steady state

For Fentanyl: 22-25 hours. Steady state in 24-72 hours.

Both of these are direct from anzca blue book on pain pg 160

### 7. Repeat

A 58yo with solitary hepatic metastasis from colon cancer scheduled for resection of R lobe of liver. In order to manage the risk of intra-operative haemorrhage, it is most important to maintain:

- A. High CVP in anticipation of heavy blood loss
- B. Decreased MAP to reduce arterial bleeding
- C. Decreased CVP to reduce venous bleeding
- D. Normal MAP in anticipation of heavy blood loss
- E. Normal CVP to ensure adequate filling of the heart.

C – decrease cvp

### 8. Repeat

An 80yo man is having a transurethral bladder resection, the surgeon is using diathermy close to the lateral bladder wall which results in patient thigh adduction. The nerve involved is:

- A. Inferior gluteal
- B. Obturator
- C. Pudendal
- D. Sciatic
- E. Superior gluteal

B – obturator. This is also the nerve damaged in vag delivery that causes adductor weakness.

**17. Repeat ME47**

In Conn's syndrome, the usual derangement is:

- A. Hypoglycaemia, hypokalaemia and hypernatraemia
- B. Hypoglycaemia, hyperkalaemia and hyponatraemia
- C. Normoglycaemia, hypokalaemia and hypernatraemia
- D. Normoglycaemia, hyperkalaemia and hyponatraemia
- E. Hyperglycaemia, hyperkalaemia and hyponatraemia

C = normal BSL, low K, high Na, alkalosis, hypertension.

Conns = excess mineralocorticoid (aldosterone)

Aldosterone is only active on fluid and electrolytes – not glucose/glycogen etc.

It reabsorbs Na at expense of K and H in the distal convoluted tubule.

**18. New**

A 60 year old woman is admitted to hospital with subarachnoid haemorrhage. Her GCS is 11, and her blood pressure is 175/110 mmHg. She is administered oral nimodipine. The main reason for this treatment is:

- A. Control her blood pressure
- B. Manage acute hydrocephalus
- C. Prevent delayed cerebral ischaemia
- D. Reduce the risk of rebleeding
- E. Treat angiographically-proven cerebral vasospasm

C – prevent delayed cerebral ischaemia.

CEACCP is good summary

Is also used in diagnosed vasospasm but the greatest evidence is in routine use. 30% reduction in infarcts.

**19. New**

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

A – room air.

Without knowing HR than its 21%. If HR <100 then can increase O<sub>2</sub> in line

with sats. If HR < 60 and Chest compressions then its 100%

**20. New**

You are inducing a 20-year-old female who has an IV cannula in her antecubital fossa which was inserted in the emergency department. She complains of pain after 10mL of propofol and it becomes clear that cannula is intraarterial. The best management option is:

- A. Intra-arterial injection of 5mL 1% lignocaine
- B. Intra-arterial injection of 30mL Normal Saline
- C. Intra-arterial injection of 50mg paperverine
- D. Intra-arterial injection of 500u heparin
- E. Observation

(this may not be worded correctly - feel free to correct)

?E

Table in CEACCP article says propofol doesn't have major side effects from IA injection.

General management it suggests: get plastics involved. Heparin is good idea. IA lignocaine can cause necrosis. IA Papaverine has been used with varying effect.

CEACCP 2010 "Extravasation injuries and accidental intra-arterial injection"

**21. New**

When is it necessary to use glycine as irrigation fluid for TURP?

- A: For monopolar diathermy
- B: For bipolar diathermy
- C: For Nd:Yag laser
- D: Greenlight laser

Answer A

Monopolar - Glycine only

Bipolar - NaCl (less risk of TURP syndrome)

**23. Repeat**

A 69 yo man is brought into ED by ambulance with a compound fracture of his forearm from an unwitnessed fall. Has a history of schizophrenia and depression with uncertain medication compliance. He is confused and agitated with generalised rigidity but no hyperreflexia.

Obs - HR 120, BP 160/90, RR 18, Sats 98 Temp 38.8 Likely Dx?

- A. Heat stress from anticholinergic therapy
- B. Hypoxic ischaemic encephalopathy
- C. Neuroleptic malignant syndrome
- D. Serotonin syndrome
- E. Pain from the compound fracture

**C**

Diff between SS and NMS – SS's classic feature is hyperreflexia, with autonomic and CNS instability

NMS – characterized by muscle rigidity, autonomic instability and hyperthermia

#### **24. New**

With surgical bleeding, the first clotting factor to reach a critical level is

- A. I
- B. II
- C. VII
- D. X
- E. XIII

**A – 1/fibrinogen**

“Assessment and management of massive bleeding: coagulation assessment, pharmacologic strategies, and transfusion management 2012”

More than 15 years ago, Hiippala et al showed in noncardiac surgery patients that fibrinogen was the first factor to reach a set “critical level” ( $< 1.0$  g/L) at 142% of total blood volume loss compared with platelets decreasing below a critical level ( $50 \times 10^9/L$ ) at 230% of total blood volume loss.

#### **25. Repeat [EZ77](#)**

Anaesthetic and respirable gas supplies to wall outlets in the operating theatre is at pressures of

- A. 200kPa
- B. 400kPa
- C. 500kPa
- D. 750kPa
- E. 1200kPa

**B – 400kpa**

Pipeline pressure is:

60 psi

4 bar or

400kPa

#### **26. New**

The most useful sign to distinguish between severe serotonin syndrome and

malignant hyperthermia are

- A. Clonus
- B. Hyperthermia
- C. Metabolic acidosis
- D. Muscle rigidity
- E. Wheeze

Answer: A It seems like clonus??? Hyperreflexia and clonus are classic for SS  
Life in the fast lane – MH has hyporeflexia with muscle rigidity.

**33. New**

Patient having a laparotomy. On prednisolone for 6/12, 10mg/day. What is the equivalent dose of dexamethasone?

- A) 2mg
- B) 4mg
- C) 6mg
- D) 8mg
- E) 10mg (or was the option 12mg?)

Answer: A 2mg - seems the closest

Conversion calculators say 1.5mg of dexa.

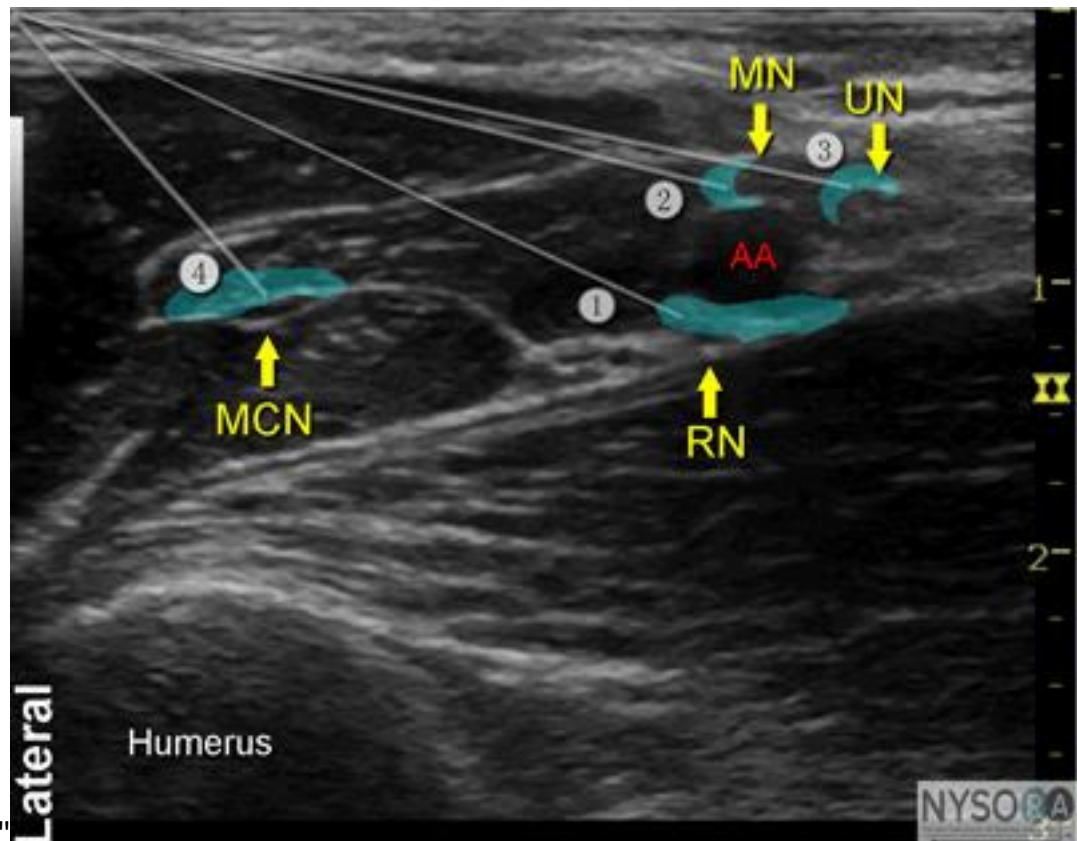
Cortisol has an activity of 1 for glucocorticoid and 1 for mineralocorticoid.

Prednisolone is 4 x for gluco and 0.8-1 for mineralo

Dexa is pure gluco with no mineralo function.

**34. New**

Axillary arm block U/S presented similar to [this ultrasound image](#). Nerves marked with numbers 1-4 but not otherwise identified. (I don't think the numbers were in the same order as on the NYSORA site though).



Patient having an operation of a lacerated index finger under regional anaesthesia. Which combination will provide adequate cover?

- A) 1 and 2
- B) 1 and 3
- C) 2 and 3
- D) 2 and 4
- E) 3 and 4

Answer: A

Axillary Nerve Block “M.U.Rs” around the Axillary Artery

35. Repeat P129

Child 20kg having a caudal. Has a VF arrest post non-responsive to usual treatments. What does of intralipid 20% would you give?

- A) 10mL
- B) 20mL
- C) 30mL
- D) 40mL
- E) 50mL

C =30ml

From AAGBI document. Initial dose is 1.5ml/kg of 20%. Max of 3 boluses 5

min apart and infusion to max 12ml/kg total dose

36.

37.

38.

39.

40. ?Repeat [Mar10, q42](#)

Labour epidural placed. Headache postpartum. Which of the following is inconsistent with post-partum dural puncture headache.

- (a) Headache located frontal only
- (b) Presents > 24 hrs post-partum
- (c) presents immediately post-partum
- (d) associated with auditory symptoms
- (e) associated with neck stiffness

C – usually develops after 24 hours. An immediate headache is possible in PDPH but other causes should be thought off

CEACCP article:

Headaches normally occur in the first 72 h after dural puncture. Patients complain of a frontal or occipital headache, characterized by its postural component. The severity increases on sitting or standing, coughing or straining, and improves on lying down.

Associated symptoms include: neck stiffness, nausea, vomiting, visual disturbances, photophobia and auditory symptoms, such as hearing loss, hyperacusis, and tinnitus.

41. New

Eclamptic patient. Given Magnesium intravenously. Which of these symptoms is often associated with magnesium administration?

- (a) Bradyarrhythmia
- (b) Cardiac arrest
- (c) Hypotension
- (d) Depressed respiratory effort
- (e)

Answer - C LITFL

Possibly read NOT associated with Magnesium administration)

42. Frequent Repeat

The clinical sign that a lay person should use to decide whether to start CPR is:

- (a) absence of breathing
- (b) loss of central pulse
- (c) loss of peripheral pulse

- (d) loss of consciousness
- (e) obvious airway obstruction

A

43.

44.

45.

46.

47.

48. Repeat Aug08 q103

A 63 yo lady has a difficult thyroidectomy for cancer. Immediately post extubation she develops stridor and respiratory distress.

The most likely cause is:

- A) Hypocalcaemia
- B) recurrent laryngeal nerve palsies
- c) tracheomalacia
- d) Neck oedema and haematoma
- e) Vocal cord oedema

Answer D: Most likely/common

Neck oedema and haem most common immediately, hypocalcaemia >24hours

RLN palsy. This presents with resp distress and stridor. Is far more common the tracheomalacia.

Tracheomalacia can present with stridor but is very rare.

“immediate” - more likely RLN palsy why would you extubate if they had a giant haematoma?

49. New

A 23 yo has a traumatic brain injury. Which fluid is relatively contraindicated?

- a) Albumin
- b) Normal saline
- c) CSL
- d) Colloid
- e) Something else

A – albumin.

SAFE trial showed no statistical difference in all ICU patients but a trend in TBI



cases. Further subgroup analysis showed increased mortality with albumin vs saline in TBI

**50. New**

50 something yr old smoker presents for laparotomy. RFTs given, what is the cause?

FEV1, FVC both reduced, FEV1/FVC 98%. TLC, RV, DLCO 8 (pred = 30)

- (a) PE
- (b) Obesity
- (c) Bilateral phrenic nerve palsies
- (d) Pulmonary fibrosis
- (e) COPD

Sounds like D – pulm fibrosis

Fibrosis will have a reduction in both FEV and FVC leaving the ratio about 1. Both the TLC and RV will be lower if fibrosis. In obstructive disorders the FEV1 is most affected.

Any disease that reduces the diffusion capacity of the alveoli (by amount of alveoli or disease of the alveoli) will reduce DLCO. COPD and fibrosis both will

**51. Repeat Aug08**

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

*This is cerebral ischaemia.*

*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.*

**52. Frequent Repeat**

Absolute contraindication to ECT:

A. Cochlear implants

- B. Epilepsy
- C. Pregnancy
- D. Raised intracranial pressure
- E. Recent myocardial infarction

Answer: E or maybe D

College of psychiatrists guidelines list raised ICP as only absolute CI.

53.

54.

55.

56.

57. FFP is given to a patient to treat hypofibrinogenaemia. The volume required to raise the fibrinogen by 1g/L is

- A 1mL/kg
- B 5mL/kg
- C 10mL/kg
- D 20mL/kg
- E 30mL/kg

Answer: E 30ml/kg

Crappy study below compared 12ml/kg to 30ml/kg. the 12ml/kg had a 0.5g/l rise, the 30ml group had a 1g/l rise...

[https://transfusion.com.au/blood\\_products/components/cryoprecipitate/use](https://transfusion.com.au/blood_products/components/cryoprecipitate/use)

[https://transfusion.com.au/blood\\_products/components/cryoprecipitate](https://transfusion.com.au/blood_products/components/cryoprecipitate)

“Efficacy of standard dose and 30 ml/kg fresh frozen plasma in correcting laboratory parameters of haemostasis in critically ill patients”

58.

The diluted thrombin time measures the anticoagulant activity of

- A apixaban
- B rivaroxaban
- C dabigatran
- D warfarin
- E heparin

## C - dabigatran

**59.**

In a trauma patient the main mechanism by which hypothermia exacerbates bleeding is by

- A altered blood viscosity
- B causing DIC
- C inhibition of clotting factors
- D potentiation of anticoagulant effect of drugs used to treat DVT
- E decreases platelet number and function

Answer C

Pretty sure its coagulation factors. Most articles point to this.  
Platelets can also be affected

**60.**

A patient having a liver resection suffers a haemodynamically significant venous air embolism. During resuscitation how do you best position the patient?

- A head up, right side down
- B head up, left side down
- C head up, no lateral tilt
- D head down, right side down
- E head down, left side down

**D**

CEACCP says left lateral decubitus & trendelenburg for treatment of arrest  
<https://academic.oup.com/bja/article/88/1/136/258981>

<https://academic.oup.com/bjaed/article/2/2/53/306405>

**61.**

In a normal adult what amount of IV potassium chloride is needed to raise the serum potassium from 2.8 to 3.8mmol/L?

- A 10mmol
- B 20mmol
- C 50mmol
- D 100mmol
- E 200mmol

If the serum potassium level is greater than 3 mmol/L, 100 -200 mmol of potassium are required to raise it by 1 mmol/L; 200 - 400 mmol are required to raise the serum potassium level by 1 mmol/L when the potassium concentration is less than 3mmol/L

[https://www.cicm.org.au/CICM\\_Media/CICMSite/CICM-Website/Resources/Publications/CCR%20Journal/Previous%20Editions/September%201999/05-Sept\\_1999\\_Hypokalaemia.pdf](https://www.cicm.org.au/CICM_Media/CICMSite/CICM-Website/Resources/Publications/CCR%20Journal/Previous%20Editions/September%201999/05-Sept_1999_Hypokalaemia.pdf)

E – 200mmol

62.

In a haemodynamically stable 20 year old man with blunt chest trauma, the best screening test to diagnose cardiac injury requiring treatment is:

A CXR

B serum CK-MB

C serum troponin

D 12 lead ECG

E Transthoracic Echocardiogram

Answer E

Useful for contusion and tamponade

From reading the article below it sounds like ECG esp when combined with troponin is the best for neg predictive value...ie if these are normal its very unlikely that there is serious cardiac injury....but they don't diagnose a cardiac injury!! ie high false +ve and still don't know the problem  
???A or E....

Requiring treatment implies pericardial effusion/aortic injury/cardiac contusion to rupture

"Screening for blunt cardiac injury: An Eastern Association for the Surgery of Trauma practice management guideline. Journal of trauma 2012. "

In the first BCI guideline, multiple studies showed that routine transthoracic echocardiogram is not useful as a primary screening modality but rather as a diagnostic test for patients who have unexplained hypotension or arrhythmias. Recent studies are consistent with this determination.<sup>[4][5][7][10-13]</sup>

The literature also supports reserving echocardiogram for symptomatic patients even with significant mechanism of injury. Specifically, patients with isolated sternal fracture do not need screening for BCI

ECG remains the most commonly recommended tool for initial diagnosis of BCI. Less clear is the role that troponin should play in addition to ECG in the diagnostic workup, although it seems that this may allow for safe discharge or admission to a regular ward. A normal ECG result has an excellent NPV, in

most studies being greater than 95%. Some studies, however, indicate that the addition of troponin I will increase the NPV to 100%,

<http://www.aast.org/blunt-cardiac-injury>

American assoc of trauma surg – blunt cardiac injury guideline.

Level I

Admission EKG should be obtained in all patients where there is suspected BCI

Level II

- If admission EKG is abnormal, the patient should be admitted for continuous EKG monitoring for 24-48 hours . If admission EKG is normal, pursuit of diagnosis should be abandoned.
- If the patient is hemodynamically unstable, an imaging study such as TTE or TEE should be obtained.
- Nuclear medicine scans add little compared with echocardiography and are not useful if echocardiography has been performed.

63. With regards to medical ethics, the concept of fidelity involves:

- A equitable distribution of resources
- B following a professional code of conduct
- C promoting well being
- D wise use of resources
- E withholding of futile treatments

B – follows codes of conduct “infidelity (opposite)”

<http://rhchp.regis.edu/hce/ethicsatagance/Fidelity/Fidelity.pdf>

64. Repeat Mar11

What is the correct position for the tip of a PICC in a child

- a) Carina
- b) Below right tracheobronchial angle
- c) Above right heart border
- d) Sternoclavicular junction
- e) ?? can't remember

A) carina

from the article listed below

**“the ideal position is above the pericardial reflection in the SVC which in most patients would be at the level of the tracheal bifurcation”**

<http://www.anzca.edu.au/communications/anzca-e-newsletter/e-news-articles/Coroners%20report%20PICC%20line%20AR%20summary%20Feb%2010.doc/view>

65. New

Image of a lateral C-spine Xray. Asked what the diagnosis was.

*[Terrible image quality. When will anzca learn that you can't just photocopy an x-ray!! Seemed to have anterior atlantodental interval >9mm.]*

- a) Atlantoaxial instability
- b) Retropharyngeal haematoma (?or abscess)
- c) Tear drop fracture
- d) Epiglottitis
- e) unilater facet joint dislocation

A) Atlantoaxial instability

Important for RA and downs syndrome.

See it on XR as a step between the C1 and C2 anterior vertebral border

66. Repeat 2011 + 2012

According to the ANZCA endorsed guidelines, what is the correct colour for the label for a subcutaneous ketamine infusion

- a) Pink
- b) Red
- c) Beige
- d) Blue
- e) Yellow

Answer - C

**Containers - open-practice environment**  
Bag, bottle and syringe labels (two sizes available)

Intrathecal      Regional      Epidural

Subcutaneous      Intravenous      Miscellaneous route

Intra-arterial      Enteral      Inhalation

0.9% sodium chloride flush

**Containers - closed-practice environment**  
(e.g. perioperative sterile field)

Example preprinted abbreviated container labels\*

Chlorhexidine Alcohol 0.5%      Potassium-Iodine Argonate 5%      Paraffin Liquid      Sodium Chloride for irrigation 0.9%

Sodium Chloride for Injection 0.9%      Medication      Medication

Sodium Chloride for Injection 0.9%      Betamethasone Sodium Phosphate      Clonidine      Verapamil

Gentamicin      Atropine      Propofol      Etomidate

Vancomycin      Lignocaine      Fentanyl      Sufentanil

Contrast      Morphine      Nitroglycerin      Nitroglycerin

**Conduits - burette label\***

**Line and catheter route labels**

Intrathecal      Epidural

Regional      Intra-arterial

Intravenous      Central venous

Subcutaneous      Miscellaneous route

Catheter lock\*      Enteral

**Medicine line labels**  
Example preprinted medicine labels for dedicated continuous infusion lines

Fentanyl      propofol

Insulin      Midazolam

Remifentanyl      Vecuronium

**77. New**

Prior to nasal intubation you spray Lignocaine/Phenylephrine preparation (CoPhenylcaine) into the nose. Some lands in the eye. What happens?

- a) Ecchymosis
- b) Miosis
- c) Mydriasis
- d) Proptosis
- e) Nystagmus

**C - mydriasis**

definitions:

miosis = pupil constrictions

mydriasis = pupil dilation

Both phenylephrine and lignocaine cause pupil dilation.

**78. New (but same question with different numbers previously)**

You trial a new drug to prevent PONV. It is 50% more effective than the current drug. Four percent of people still experience PONV with the new drug. How many people need to receive the new drug in place of the current drug to have one person less suffering from PONV? *(Unsure about my numbers below, but the correct answer is there!)*

- a) 2
- b) 8
- c) 15
- d) 25
- e) 33

**D) 25 I think**

50% more effective to get 4..so the old drug would get 8% nausea rates???

That's 4 in 100 or 1 in 25??

**79. Repeat Aug12**

What does a white cylinder with a Grey coloured shoulders/neck contain?

- a) Medical air
- b) Carbon Dioxide
- c) Helium
- d) Oxygen
- e) Argon

Answer: CO2

Air = black and white top  
 Carbon dioxide = grey top  
 Helium = brown top...heliox is brown and white (helium and oxygen)  
 Oxygen = white  
 Argon = ??  
 Nitrous oxide = blue



## 80. New

The best solution to ensure asepsis prior to neuraxial anaesthesia is

- A. 0.5% Chlorhexidine
- B. 0.5% Chlorhexidine with 70% alcohol
- C. 5% Povidine Iodine
- D. 5% Povidine Iodine with 70% alcohol
- E. 10% Povidine Iodine

*PS28 recommends 0.5% chlorhexidine in alcohol*

**B**

## 81. Repeat Mar11 and Sep11, but with important difference to the recalled answers.

You are anaesthetising a 25 year male for an open appendicectomy. He has a Fontans circulation on a background of tricuspid atresia. The best strategy to manage his ventilation intraoperatively would be:

- A. Ensure adequate PEEP
- B. Decrease Inspiratory time
- C. Shorten I:E Ratio from 1:3 to 1:1.2
- D. Increase Inspiratory time but with reduced inspiratory pressures
- E. Ensure adequate spontaneous ventilation

*Answer: E (If short, minor surgery maintaining normal pCO<sub>2</sub> etc)*

*If paralysis/long operation – decrease insp time – straight out of CEACCP article*

*The key points in fontan circulation and ventilation is that pulm blood flow is*



*straight off SVC and IVC anastomosis to pulm artery so flow is determined by venous pressure –atrial pressure OR intrathoracic pressure (which ever is higher). If intrathoracic pressure is high it will act as starling resistor on pulm blood flow.*

*Therefore aims:*

*Low resp rate with short insp time – so time of high intrathoracic pressure is short.*

*Low peep*

*Avoid drugs that will increase pulm vessel tone (eg alpha agonists)*

*D definitely said "with reduced inspiratory pressures", which could make it a contender for the answer. Thoughts?*

**82.** Repeat Apr09

You are anaesthetising a 70 year old woman for CABG with a pulmonary artery catheter in situ. After separation from bypass you notice frank, copious blood rising in the endotracheal tube. Your immediate action should be to:

- A. Check ACT
- B. Insert a double lumen tube
- C. Reinststate bypass
- D. Administer protamine
- E. Pull back the pulmonary artery catheter several centimetres

Answer C

*Go back on bypass..*

**88.** Repeat IC67

Penetrating injury to chest. What part of the heart most likely injured?

- A. RV
- B. LV
- C. RCA
- D. LA
- E. RA

*Answer A: RV = most anterior / exposed (from EMST)*

**89.** Repeat Aug13

General anaesthesia is preferred for endoluminal stenting because:

- A. Ischaemic renal pain
- B. Prolonged periods of apnoea required
- C. Painful aorta

- D. Major risk of haemorrhage
- E. Trash foot pain

*B or D?*

*A – makes no sense*

*B – this is true, do need apnoea but patients can do this.*

*C – aorta stenting is painless. Can do it under LA infiltration in groin.*

*D – kind of correct*

*E – shouldn't be the reason*

*Stupid MCQ. Answer could either be B or D depending on who you read. Breath-holds are short according to most sources. "Patient comfort" due to prolonged procedure would be best answer (CEACCP) but definitely wasn't an option. Many centres do these under regional, so question reflects lack of research by writer.*

#### **90. PI81**

Which volatile agent has got minimum effect on ICP at 1 MAC

- a) isoflurane
- b) sevoflurane
- c) desflurane
- d) enflurane
- e) halothane

*B –sevo*

*Sevo generally has the least effect on CBF c/w the others (steolt pg 48)*

*B -- Sevo. Current Opinion in Anaesthesiology: October 2006 - Volume 19 - Issue 5 - p 504-508*

#### **97. New**

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

*B – increases chance of hitting CA.*

<http://www.frca.co.uk/Documents/138%20Central%20Venous%20Cannulation.pdf>

**Positioning** The patient is supine, arms by their sides with a head down tilt to distend the veins and reduce the risk of air embolism. The head should be slightly turned away from the side of cannulation for better access (excessive turning should be avoided as it changes the relationship of the vein and artery and can collapse the vein). The patients neck can be extended by removing the pillow and putting a small towel under the shoulders

**98. New**

Patient two hours after bilateral crush injuries to lower limbs. What would you expect to see?

- a) Hypocalcaemia
- b) Hypokalaemia
- c) Hypophosphataemia
- d) Hypouricaemia
- e) Metabolic alkalosis

*A – would see hypo Ca*

*rhabdo causes >K, >uric acid, > phosphate.*

*Ca can go both ways. Early its hypo as heaps of Ca goes into cells causing them to die, in severe late stage Ca can be high.*

*They get metabolic acidosis.*

*Treatment is to prevent ARF with hydration and alkalisate urine (HCO infusion)*

*All from CEACCP*

*I remembered this is "which would you NOT expect to see", but I could be wrong.*

**99. Repeat TMP11B30 Tmp11b25**

Delivery of neonate. Meconium liquor. Baby floppy, blue, apnoeic, pulse rate 90bpm. What is the next step in management?

- a) Commence PPV
- b) Suction the trachea
- c) Commence CPR
- d) Dry and stimulate
- e)

Answer B

*mec liq and apnoeic = suction the trachea*

from resus airway guideline page 1 and 2:

- don't routinely suction the airway of any baby that is vigorous, doesn't matter if meconium present or not
- if meconium is present and baby breathing/vigorous don't suction.
- If meconium present and baby flat – then current recommendation is to suction **before** stimulating to breathe or PPV.

**103.** ?New, but certainly previous questions on this theme.

You inject 10ml ropivacaine into a T5 paravertebral block. Patient becomes bradycardic, hypotensive and apnoeic. What is the cause.

- A. Contralateral spread
- B. Intrathecal spread
- C. Inadvertent intravascular injection
- D. Local anaesthetic toxicity

Answer B (apnoea unlikely in epidural)

from ceaccp article:

there have only been 2 reports of intrathecal spread worldwide with PVB.

Spread is more likely to be due to spread into epidural space than from spread across to other PV space.

<https://academic.oup.com/bjaed/article/10/5/133/274956>

**110.** Repeat

Medical therapy vs TAVI in inoperable patients. At 30 days, decreased risk of:

- A
- B Myocardial infarct
- C Death
- D Stroke
- E Atrial fibrillation

*D – stroke:*

<http://www.nejm.org/action/showImage?doi=10.1056%2FNEJMoa1008232&id=t02>

*this table shows it. No difference in any except decreased risk of stroke at 30 days in medical group.*

*TAVI has decreased death at 1 yr but not at 30 days..*

**111.** Repeat

Glycine used during urology case. Osm is:

- A.
- B. 200
- C. 250

D. 300

E

200 - product info

**112. New**

Volatile analysis in most anaesthetic machines is done via which method?

A Gas chromatography

B Infrared analyser

C Raman spectrometry

D

E

**B – infrared analyser**

**Analysis of Oxygen, Anaesthesia Agent and Flows in Anaesthesia Machine – indian journal**

**113.**

**114. New**

What is not a constituent of Prothrombinex VF?

A. Antithrombin III

B. Factor II

C. Factor X

D. Protein C

E. Heparin

*Factor VII definitely not an option*

**D – protein C**

**From the CSL website fact sheet at bottom of prothrombinex page.**

**It contains 2, 9, 10 and small amounts of 7 and 5.**

**Also contains antithrombin 3 and heparin.**

**NOT protein C**

**142. Repeat [Aug09 q12](#)**

50yo lady for elective laparoscopic cholecystectomy seen in PreAdmission Clinic. No symptoms of heart disease, walks her dog for 30 minutes each day.

ECG [no image — described in words] shows LAD, RSR in V1, wide slurred S in V6 and QRS duration 0.13 msec. Your options:

A. Give atropine premedication

B. She needs a permanent pacemaker

C. She needs temporary pacing wires

- D. Continue with the case
- E. Refer to cardiology OP prior to doing the case

D – continue with case  
As per black bank and cram.

AHA/ACC 2014 Pg e288 Patients with intraventricular conduction delays, even in the presence of a left or right bundle-branch block, and no history of advanced heart block or symptoms, rarely progress to complete atrioventricular block perioperatively. 97 The presence of some pre-existing conduction disorders, such as sinus node dysfunction and atrioventricular block, requires caution if perioperative beta-blocker therapy is being considered. Isolated bundle-branch block and bifascicular block generally do not contraindicate use of beta blockers

**143.** Similar to [TMP-Jul10-012](#), [TMP-144](#), [Apr08 q127](#)

You are performing epidural anaesthesia on an adult patient. To minimize the chance of inserting the epidural catheter into a blood vessel you would:

- A. Inject saline through the epidural needle prior to threading the catheter
- B. Perform the procedure with the patient lateral rather than sitting
- C. Use a loss of resistance to air technique instead of loss of resistance to saline.

sorry, can't recall the other options

both lateral and injecting saline through needle decrease the risk.  
results below from systematic review published in anaesth analg 2009 (so after this question was asked)

RESULTS: Of 90 trials screened, 30 trials were included (n = 12,738 subjects). Five strategies reduce the risk of epidural vein cannulation: the lateral as opposed to sitting position (six trials, mean (sd) quality score = 35% [11%], odds ratio (OR) 0.53 [95% confidence interval (CI) 0.32–0.86]), fluid administered through the epidural needle before catheter insertion (8 trials, quality score 48% [18%], OR 0.49 [95% CI 0.25–0.97]), single rather than multiorifice catheter (5 trials, quality score 30% [6%], OR 0.64 [95% CI 0.45–0.91]), a wire-embedded polyurethane compared with polyamide epidural catheter (1 trial, 31%, plus 4 unscored abstracts, OR 0.14 [95% CI 0.06–0.30]) and catheter insertion depth ≤6 cm (2 trials, 47% [11%], OR 0.27 [95% CI 0.10–0.74]). The paramedian as opposed to midline needle approach and smaller epidural needle or catheter gauges do not reduce the risk of epidural vein cannulation

**144.** Repeat [Mar13 q18](#)

Failed intubation. Difficult ventilation. Rescued with a Classic(R) LMA. Decide to use a bronchoscope to intubate down the LMA. Which device will allow you to intubate the patient safely?

- A. Aintree catheter
- B. Airway exchange catheter
- C. Gumelastic bougie
- D. Some angiogram wire I've never heard of!

E. Two paediatric endotracheal tubes side-by-side

A – aintree. This is the exact use for the aintree. You put the bronch down the aintree.

<https://www.youtube.com/watch?v=Pn8CRYZz4Q4>

**150. New**

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

A – right subclavian.

This is the shunt used in the first step of the fontan procedure and is used for cyanotic heart disease

## Unnumbered.

Hopefully as people add their designated recalled questions above, these can be moved to their correct number above. However, please don't delete them from here without checking that important elements of the wording, image descriptions and answers have been included in the recalled versions above. If they are significantly conflicting, move the matching questions together, but leave both versions in their original form so that people can research appropriately.

**New.** Time taken for insulin to reduce K<sup>+</sup> in hyperkalaemia

- A. 2 mins
- B. 4 mins
- C. 10 mins
- D. 20 mins
- E. 30 mins

A, B and C definitely those times. ?D was 20 mins or not.

LITFL says 20-30 min.

Emedicine says 20-30min

## Repeat

Increased risk with eye block:

- A: Peribulbar done medial canthus
- B: Peribulbar done inferior-temporal

C: Sub-tenons  
D: <45 years age  
E: Another clearly wrong

A – I think is saying medial canthus peribulbar is more dangerous??

### **Repeat**

2/12 old baby. Initially on 30th centile and now on 5th. Murmur, systolic, loud at apex. Pulses are weak, "most easily felt at the femoral".

A: VSD  
B: Co-arctation  
C: Venous hum  
D: PDA

???

PDA causes FTT with a murmur that is often systolic or continuous machinery murmur. Emedicine says that PDA has bounding pulses due to high LV stroke volume.

VSD – can cause FTT. Murmur is left lower sternal edge.

Coarctation p/w hypertension and signs of ccF

Venous hum is a type of innocent murmur heard in jugular veins.

### **New**

Some diathermy pads have two separate electrodes on the patient pad, each with its own cable back to the machine. Why?

A: In case one fails the other can serve as a back-up  
B: One for coag and one for cutting  
C: For bipolar? - worded slightly differently  
D: For capacitance measurement - again wording not right  
E: For return electrode monitoring

E – return electrode monitoring.

Its to measure the impedance of the neutral plate.

Neutral plate completes the circuit to the active plate (the diathermy tip). If the neutral plate starts to come off so only a small part is in contact with the skin, it will act like a diathermy and burn the skin.

The twin pads are used to measure the impedance of the neutral pad to make sure its safe

This is called RETURN ELECTRODE MONITORING

### **New**

Cisatracurium left out of fridge for 4 days. Its efficacy is now:



- A. 60%
- B. 70%
- C. 90%
- D. 50%
- E. 99%

*The product statements say can be out of fridge for 21 days...surely that means 99% active at 4 days??*

### **?New**

In which type of von willebrand's disease is DDAVP contraindicated?

- A. Type 1
- B. Type 2a
- C. Type 2b
- D. Type 3
- E. None of the above

Answer C – type 2B

“DDAVP NOT 2B”

Type 1 = heterozygote for defective gene. Get low levels of vWF (about 10-40%) and lower factor 8. Can give DDAVP

Type 2 – these are qualitative defects...not quantity.

2a – they cant bind properly to platelets to form clot.

2b – they bind TOO WELL to platelets, cause clumping and then thrombocytopenia. By giving DDAVP you increase this and make platelets lower – therefore contraindicated

type 3 – homozygote for gene. Complete lack of vWF. DDAVP prob wont work but not contraindicated.

### **Repeat**

This ECG with AAI pacing shows:

*The 12-lead ECG showed pacing spikes followed by p-waves, with QRS's following the p-waves with progressive prolongation of the PR until a QRS was dropped. In other word, second degree heart block (type 1, although the type was not required to answer the question).*

*The ECG looked very much like "Example 8" from [lifeinthefastlane](#). I think it was lifted from this website. (Did you get copyright permission, ANZCA??)*

- A. Failure to capture
- B. CHB

- C. 2nd degree HB
- D. AF

Answer C

### **New**

The NAP4 audit showed that the most common cause of airway problems/complications/disasters in INTENSIVE CARE is:

- A. Aspiration
- B. Dislodged tracheostomy tube

*I really can't recall the exact wording or options, but it definitely specified "in the intensive care unit"*

**B – dislodged trachy tubes.**

<http://www.rcoa.ac.uk/system/files/CSQ-NAP4-ES.pdf>

### **Repeat SF29d**

The target serum magnesium level in a patient with pre-eclampsia receiving a magnesium infusion is

- A. 1-2 mmol/l
- B. 2-3.5 mmol/l
- C. 3-6 mmol/l
- D. 4-6 mmol/l
- E. 5-8 mmol/l

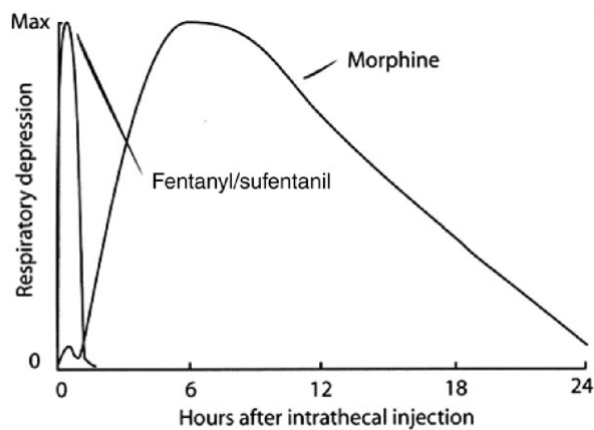
**Don't have reference but pretty sure its B – 2-3.5**  
**Levels around 5 can cause resp distress..**

### **Repeat TMP-Jul10-013**

Timing of peak respiratory depression after intrathecal 300 mcg morphine:

- A. < 3.5 hours
- B. 3.5 – 7.5 hours
- C. 7 - 12.5 hours
- D. 12.5 -18 hours
- E. > 18 hours

**B – 3.5 to 7.5**  
**graph From CEACCP. Article says peak is 6hours**



**Fig 2** Time to onset of respiratory depression after fentanyl and morphine.

**New** What part of a modern anaesthesia machine allows jet ventilation to be performed using the oxygen flush button?

- A. Non-return valve downstream of the vaporisers
- B. Pressure-limiting valve at the outlet
- C. The presence of a common gas outlet
- D. Presence of auxiliary oxygen flowmeter

Answer - C

?????

*think the non return valve?? Prevents back pressure through the vaporizers etc when the high flow of the oxygen flush hits the high resistance of the jet ventilation system??*

*Exact wording and options not recalled, but A and B were certainly options, and I think A (non-return valve downstream of vaporiser) was the answer. Pretty sure D is actually the correct answer (least pressure drop across the flowmeter and essentially connected to wall O2 supply...)  
The question definitely specified "allows jet ventilation VIA THE OXYGEN FLUSH BUTTON", so D can't be the answer.*

**Repeat** Aug14

Red-man syndrome secondary to vancomycin is due to

- A Type II hypersensitivity reaction
- B Vasodilation
- C Mast cell degranulation
- D IgE mediated response
- E Serotonin release

C – mast cells releasing histamine. But NOT IgE mediated.

From – red man syndrome. J Crit care. 2003

The hypersensitivity reactions that can arise due to vancomycin are due to its effect on the mast cells. In tissue culture, vancomycin causes degranulation of peritoneal mast cells in rats [8]. The anaphylactic reaction is mediated by IgE. Red man syndrome, an anaphylactoid reaction, is caused by the degranulation of mast cells and basophils, resulting in the release of histamine independent of preformed IgE or complement

Type 1 = IgE mediated (anaphylaxis)

Type 2 = antibody mediated. IgM or IgG bind to cells and cause destruction.

Type 3 = complex formation

Type 4 = delayed response. T cell mediated.

### **New**

Patient with IgA deficiency. What is the main issue in anaesthesia?

- A. Anaphylaxis to blood products
- B. Renal impairment
- C.
- D. Sensitivity to opioids
- E. Sensitivity to muscle relaxants

A – anaphylaxis to blood products.

Ppl who don't have IgA can produce autoantibodies to IgA that can cause reaction when blood products are transfused.

**Repeat** but recalled answers not the same

Cryo "should be used within" or "must be used within" or "is most effective if used within" (can't recall exactly):

A 30 minutes

B 3 hours

C 6 hours

*4 hours was NOT an option"*

C – 6hrs

From transfusion.com....

From storage temperature of -25 °C or below, cryoprecipitate is thawed. It should be maintained at 20–24 °C until transfusion and used within 4–6 hours.

### **New**

Designing a study on PONV. What is the advantage of designing a study incorporating multivariate analysis?

- A Less type 1 error
- B Less complex
- C Less difficult to interpret
- D Less confounding
- E Fewer patients required

Answer - D

### **New**

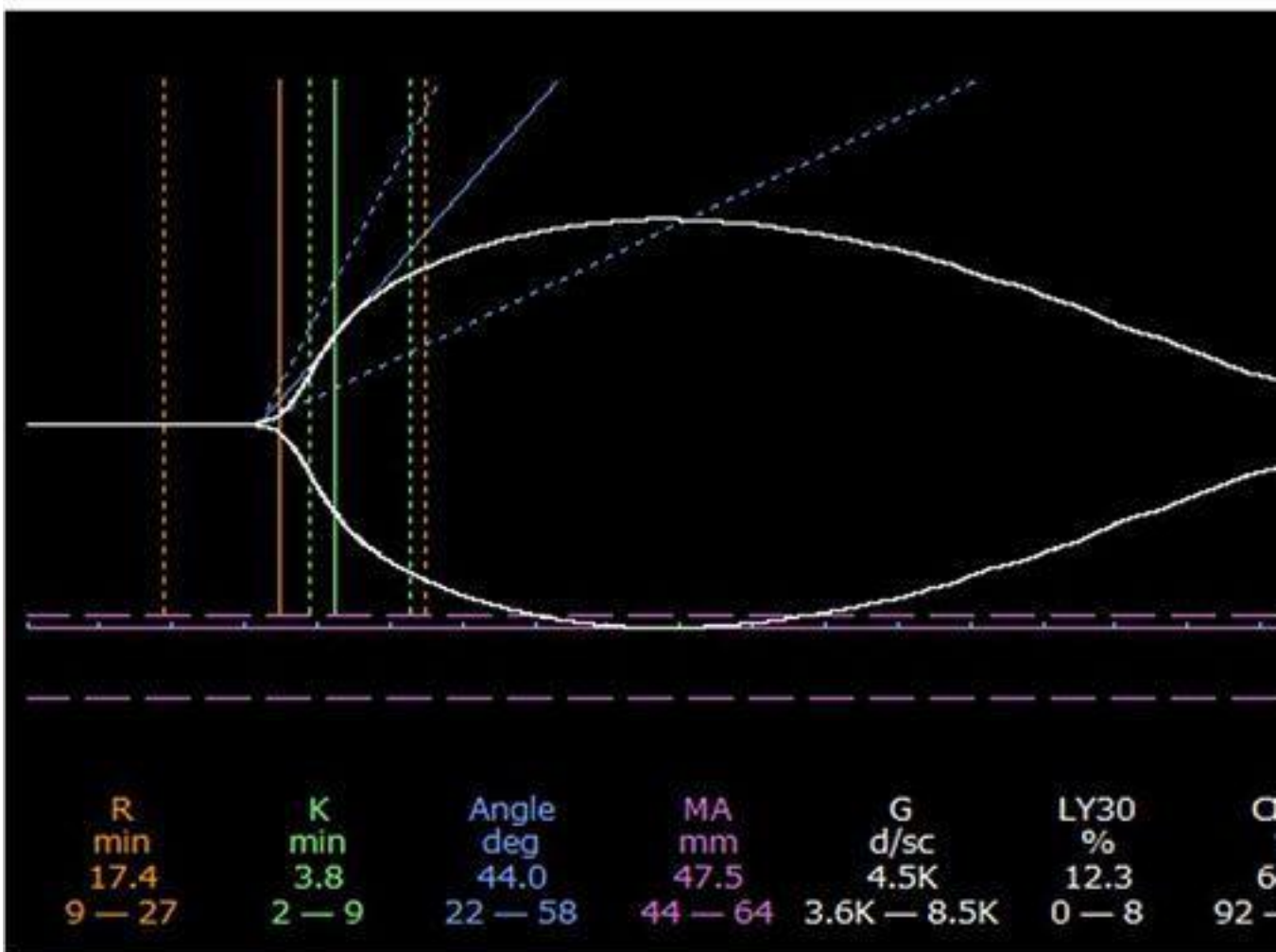
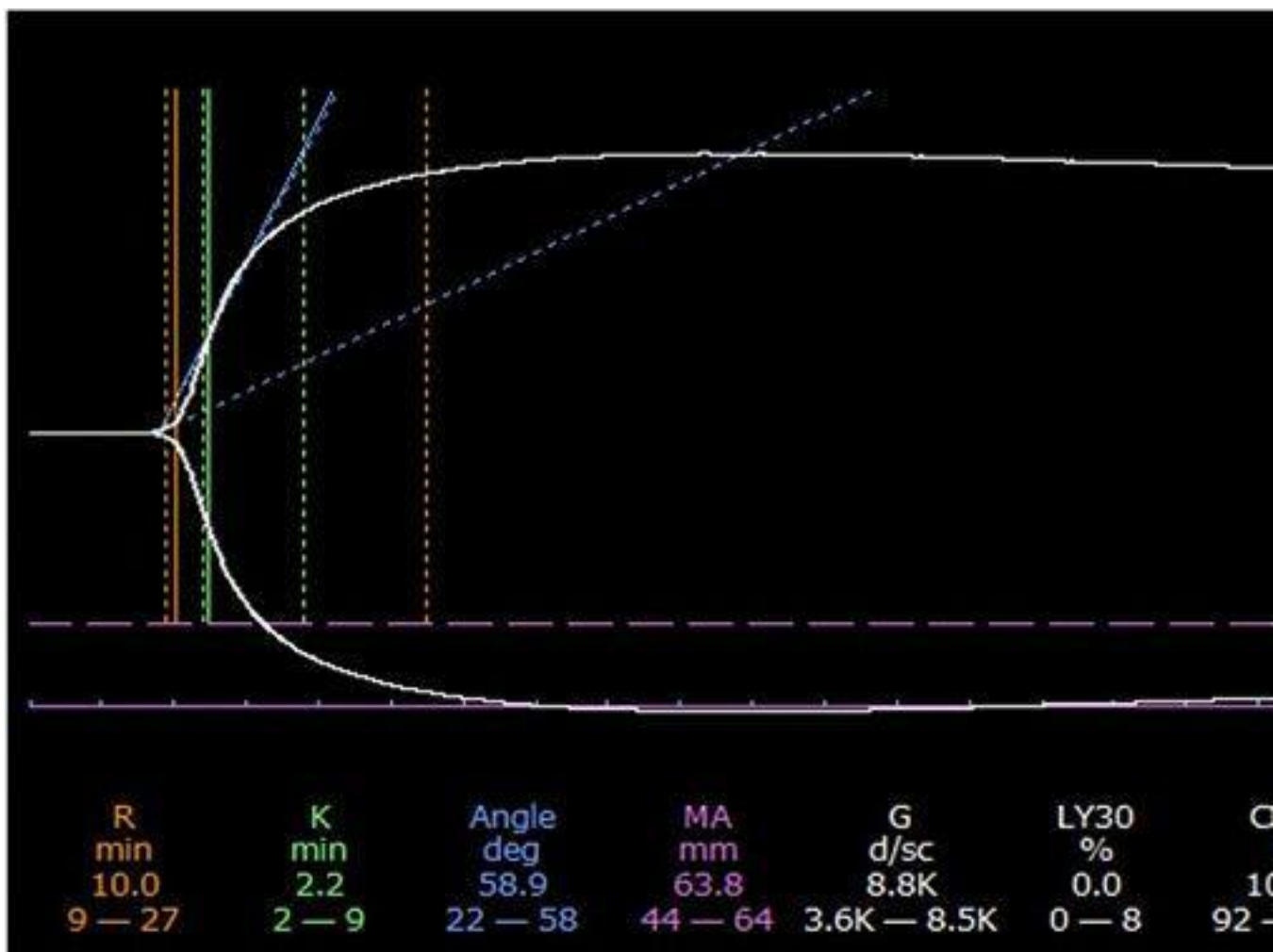
Bleeding intraoperatively. TEG shown. What should be used to treat?

*The image itself was useless because there was no normal reference to compare it to. However there were numerical figures at the bottom of the image, but difficult to read on the photocopied paper. Normal R, K, angle and MA vales. LY30 and LY60 were low, CL30 and CL60 high.*

*It didn't take me long to Google the TEG image that ANZCA lifted for this question! I'm almost certain it was **Figure 1B** from: [Pepperell 2014](#), "[Clinical Application of Fibrinolytic Assays](#)".*

**Only the bottom image was shown, not the top reference version**

"



"

- A TXA
- B Platelets
- C Cryo
- D FFP
- E

This shows hyperfibrinolysis.....so I guess TXA would work??

### Repeat EZ96

A size C oxygen cylinder (in New Zealand, "A") that reads 5000kpa contains approximately how many litres of oxygen

- a. 100
- b. 150
- c. 200
- d. 350
- e. 600

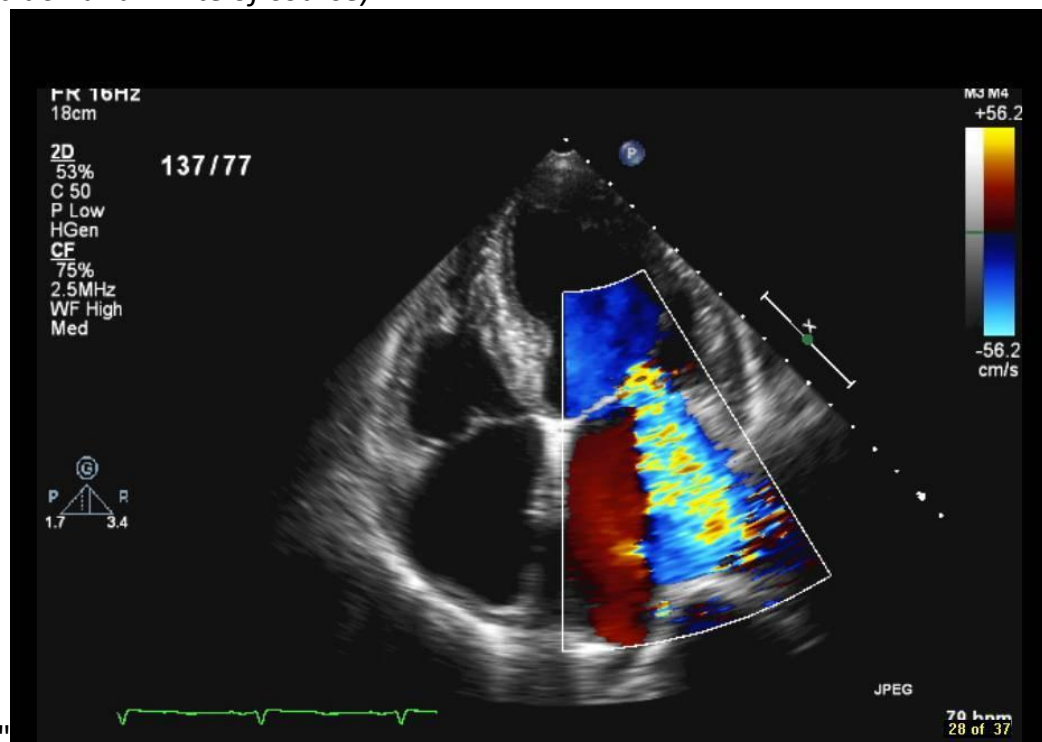
size C contains 490L when full..i think that is 15000kpa???

So 1/3 would be about 150

### New

4-chamber TTE view. What lesion is present?

*Image showed mitral regurg. Think the image was from this [here](#) (but was black-and-white of course)*



A. mitral regurgitation

**Repeat**

Appropriate infection control measures when anaesthetising a patient with iatrogenic variant-CJD, the airway equipment should be:

- a. thrown away
- b. plastic sheath, reuse
- c. sterilization with ethylene oxide
- d. sterilization with heat at 134 degrees for 3 minutes.
- e. autoclave

*Can't recall the exact answers, but have copied them across from previous recalled version of this MCQ.*

Answer - A

**New**

A variant on the theme of the previous question referring to PS9. Minimum requirements to provide sedation. This time asked who is necessary to provide conscious sedation, using propofol.

medical practitioner trained in use of propofol

medical practitioner trained in use of propofol + their assistant

???

**if using propofol – need 3 ppl. Procedure, sedation and 1 assistant.**

**Repeat**

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

**C – grade 3a. if its adherent to the wall it's a grade 3b**

**Yentis and Lee (8) divided the original classification grade 2 into grade 2a, visualization of parts of the laryngeal aperture, and grade 2b, visualization of only the arytenoids or at least parts of the laryngeal aperture. Others (3, 6) have suggested that the original classification grade 3 should be further subdivided in 3a, visualization of only the epiglottis, and 3b, visualization of only the epiglottis adherent to the posterior pharyngeal wall.**

**New**

What feature most increases vasospasm in setting of SAH?

A. Size of aneurysm



- B. Age of patient
- C. Position of Aneurysm
- D. large amount of blood on CT
- E. GCS on arrival to ED

D – amount of blood

Age and GCS also have an influence as well

### **Clinical review: Prevention and therapy of vasospasm in subarachnoid hemorrhage J crit care 2007**

Risk factors for vasospasm and DID are amount and duration of exposure to subarachnoid blood, thick blood collections in basal cisterns and fissures, and intraventricular blood [31-34]. Interestingly, however, endovascular coiling of the ruptured aneurysm, a procedure that does not involve a craniotomy and washing out of the subarachnoid blood, does not increase the risk of vasospasm in comparison to surgical clipping [35,36]. **Advanced age [37], race [29], poor neurological status on admission [17,37,38] and use of antifibrinolytic agents [16,33,39] are also associated with the development of DID.** Factors less robustly linked to a higher incidence of DID are a longer duration of unconsciousness following the initial hemorrhage [40], history of hypertension [37,41], smoking [42,43], and excess weight [41].

### **?Repeat**

Line isolation monitor alarming at 5ma – what do to?

- A. Disconnect non essential equipment 1 by 1 to identify fault
- B. Ignore it

Answer - A

### **New**

Maintenance fluid rate in 15kg child – mls/hr

- A. 40mls/hr
- B. 50mls/hr
- C. 90mls/hr
- D. 300mls/hr

(Options above may not be correctly remembered..)

B – 50ml/hr

### **Elective surgery infusion rate:**

First 10kg = 4ml/h per KG

Next 10kg = 2ml/h per Kg

Each further KG = 1ml/h per kg

### **New**

"Hypothermia makes bleeding in trauma worse because..."

- A. Reduced platelet function AND Number

B. Reduced activity of clotting factors  
(can't remember other options but one about platelets definitely said function AND number...)

same as q59

### Repeat

Most effective (?quickest) way to reduce serum K<sup>+</sup> level in hyperkalaemia 8.0meq/L?

- A. Calcium gluconate
- B. Resonium
- C. Salbutamol NEB
- D. 15 units actrapid and 50 mls of 50% Dextrose
- E. Sodium bicarbonate ?50mmol

*Definitely said to reduce serum or plasma levels, so calcium not the answer.*

A – doesn't < K

B – takes 2-3 hours

C – emedicine says takes 30 min

D – takes 20-30min

E – emedicine says takes couple of minutes and only lasts 30min?

Cochrane review "Emergency interventions for hyperkalaemia" 2006 says that HCO is pretty shit at reducing K anyway.

### New

ECG rhythm strip. Showed regular pacing spike followed by wide QRS complexes. But once there is a narrow QRS occurring without a pacing spike, followed shortly-after by a pacing spike but no capture. Can't find anything matching it on Google.

What does ECG show?

- A. AAI with failure to capture
- B. AAI with failure to sense
- C
- D. VVI with failure to capture
- E. VVI with failure to sense

*VVI with failure to sense, I think is the answer. The narrow QRS complex was an intrinsic beat, but the pacer didn't sense so paced shortly after at its regular interval. The myocardium was still refractory so there was no capture, but failure to sense was the original problem.*

Repeat SC31

Relative contraindications to mediastinoscopy include

- A. Cervical spondylosis
- B. Emphysema
- C. Mediastinal lymphadenopathy
- D. Poor left ventricular function
- E. Superior vena cava syndrome

A and E look like both are relative CI's.

Millers (as per black bank) says E is a CI....go with E

C – not a CI as this is often an indication for the procedure.

From CEACCP on mediastinoscopy

### Contraindications

Previous mediastinoscopy is a relatively strong contraindication to a repeat procedure because scar tissue eliminates the plane of dissection. Superior vena cava (SVC) syndrome increases the risk of bleeding from distended veins and is a relative contraindication. Other relative contraindications include severe tracheal deviation, cerebrovascular disease, severe cervical spine disease with limited neck extension, previous chest radiotherapy, and aneurysm.

### New

How should you dose suxamethonium for intubation in an obese patient?

- a) Lean body weight
- b) Ideal body weight
- c) Ideal body weight + 25%
- d) Actual body weight
- e) Actual body weight + 25%

D – actual body weight

<http://www.sobauk.co.uk/downloads/single-sheet-guideline>

Dose adjustment of anaesthetics in the morbidly obese

BJA 2010

**Table 1** Weight-based dosing scalar recommendation for commonly used i.v. anaesthetics. CO, cardiac output; IBW, ideal body weight; lean body weight; TBW, total body weight

| Drug                      | Dosing scalar                      | Comments   |
|---------------------------|------------------------------------|--|
| Thiopental                | Induction: LBW<br>Maintenance: TBW | Simulations showed a 60% decrease in peak plasma concentration in MO subjects compared with lean subjects after a 250 mg dose. <sup>26</sup> Induction dose adjusted to LBW results in same peak plasma concentration as dose adjusted to CO. <sup>26</sup> Volumes and clearances increase proportionally with TBW. |
| Propofol                  | Induction: LBW<br>Maintenance: TBW | MO subjects given an induction dose based on LBW required similar amounts of propofol and similar times to loss of consciousness compared with lean subjects given propofol based on TBW. <sup>29</sup> Volume of distribution and clearance at steady state increases with increasing TBW. <sup>28</sup>            |
| Fentanyl                  | LBW                                | Clearance increases linearly with 'PK mass', an arbitrary scalar highly correlated to LBW. <sup>46</sup>   |
| Remifentanyl              | LBW                                | An infusion based on LBW results in similar plasma concentrations as normal weight subjects would given an infusion based on TBW. <sup>51</sup>  |
| Succinylcholine           | TBW                                | Administration of 1 mg kg <sup>-1</sup> based on TBW resulted in a more profound block and better intubation conditions compared with doses based on IBW or LBW. <sup>67</sup>   |
| Vecuronium                | IBW                                | Doses based on TBW result in a prolonged duration of action in obese vs non-obese subjects. <sup>69, 70</sup>  |
| Rocuronium                | IBW                                | There is an increased duration of action when the drug is given based on TBW vs IBW. <sup>71</sup>   |
| Atracurium, Cisatracurium | IBW                                | The duration of action is prolonged in obese subjects when given on the basis of TBW vs IBW. <sup>73</sup>   |

**Repeat AB55** Time to onset of TRALI with transfusion?

- a) 2 hours
- b) 4 hours
- c) 12 hours
- d) 24 hours
- e) 48 hours

**B – 4 hours seems the best.**

Most definitions say it can occur 1-2 hrs post, normally up to 6 hours. Delayed is 24 hrs.

**Repeat Apr08 Mar11** When performing regional anaesthesia for eye surgery, needle damage to the globe of the eye is more common with:

- A. a globe axial length of less than 25 mm
- B. patients aged less than 45 years
- C. peribulbar block using the inferotemporal approach
- D. peribulbar block using the medial canthus approach
- E. sub-Tenon block

????

**A – certainly not**

**B - ??**

**C: probably**

**D:**

E – sub tenons is considered less risky of perforation.

<https://academic.oup.com/bja/article/85/2/242/264191>

**?Repeat Sep 11 ?MB38** Best method to assess reversal of neuromuscular blockade?

- A. Sustained head lift 5 sec
- B. Sustained leg lift 5 sec
- C. TOF 0.9 with accelerometer *Definitely specified, with accelerometer*
- D. DBS no fade
- E. Tetanus 50Hz
- F. Tidal volumes... ?

If it has accelerometer then C. if no accelerometer then D - DBS

<https://academic.oup.com/bjaed/article/12/5/237/289170>

**Repeat PP93** The Neonatal Facial Coding Scale (NFCS), used to assess pain in neonates, includes all of the following EXCEPT

- A. brow bulge
- B. chin quiver
- C. closed mouth
- D. deep nasolabial fold
- E. eyes squeezed shut

C – closed mouth

8 factors to look for in premi and term neonates. Score out of 8  
closed mouth is not one.

Mouth does have points for horizontal and vertical stretch

Table 1 – Neonatal Facial Coding System

| Facial actions                         | 0 point | 1 point |
|--|---------|---------|
| Brow bulge                             | Absent  | Present |
| Eye squeeze                            | Absent  | Present |
| Deepening of nasolabial furrow         | Absent  | Present |
| Open lips                              | Absent  | Present |
| Mouth stretch (horizontal or vertical) | Absent  | Present |
| Tongue tautening                       | Absent  | Present |
| Tongue protrusion                      | Absent  | Present |
| Chin quiver                            | Absent  | Present |

Maximal score of 8 points, considering pain  $\geq 3$ .

**Repeat Aug14**

What is the best measure of the anticoagulant effect of Dabigatran?

- A. APTT
- B. Dilute thrombin time

- C. Prothrombin time
- D. Bleeding time
- E. TEG

### B - DTT

#### Repeat Aug14

Small air bubbles in the arterial line system will ALWAYS REDUCE the

- A. Damping coefficient
- B. Extrinsic Coefficient
- C. Measured systolic pressure
- D. Measured MAP
- E. Resonant frequency

$$\text{Natural frequency : } f_n = \frac{d}{8} \sqrt{\frac{3}{\pi L \rho V_d}}$$

$$\text{Damping coefficient : } \zeta = \frac{16n}{d^3} \sqrt{\frac{3LV_d}{\pi\rho}},$$

C - SBP maybe E tho

<https://www.aagbi.org/sites/default/files/137-Physical-principles-of-intra-arterial-blood-pressure-measurement.pdf>

?? E

#### Repeat Mar12 Aug14

A patient undergoing liver surgery has a venous air embolism, what is the most appropriate position to place them in:

- a. Reverse trendelenburg, right side up
- b. Reverse trendelenburg left side up
- c. Reverse trendelenburg, neutral
- d. Trendelenburg right side up
- e. Trendeleburg left side up

Answer D

#### Repeat Mar11

During interscalene block placement and you get medial movement of the scapula. This is secondary to stimulation of:

- A: long thoracic nerve
- B: dorsal scapula nerve
- C: suprascapular nerve

D: supraclavicular nerve  
E: accessory nerve

**B – dorsal scapula nerve.**

This is levator scapulae/rhomboid that moves scapula medial and rotates clockwise (right one)

<https://academic.oup.com/bja/article/111/5/840/321995>

**Repeat Aug14**

Blue urticaria is a complication of

- A
- B Methylene blue
- C Patent blue V
- D Anaphylaxis
- E

**C - Patent blue injection**

**Repeat RH35**

Subtenon's block. What is the BEST position to insert block?

- A. Inferonasal
- B. Inferotemporal
- C. Superonasal
- D. Superotemporal
- E. Medial / canthal

**A – infranasal....but can do in all 4 quadrants**

**Sub-Tenon's anesthesia: an update 2012**

The block can be performed in any quadrant,3,8,9 but the single-injection inferonasal approach has the advantage of being away from the usual site of surgery and away from the insertion of the superior and inferior oblique muscles.4,10

**Repeat Mar13 Aug13**

Most cephalic interspace in neonate to perform spinal while minimising the possibility of spinal cord puncture

- A. L1-L2
- B. L2-L3
- C. L3-L4
- D. L4-L5
- E. L5-S1

**C – L3.L4**

But this is still at the level of the crests as this is different in kids.

Nysora....

The spinal cord terminates at a much more caudad level in neonates and in infants compared to adults, Figure 1. The conus medullaris ends at approximately L1 in adults and at the L2 or L3 level in neonates and infants. In order to avoid potential injury to the spinal cord, dural puncture should be performed below the level of the spinal cord, i.e. below L2-L3 in neonates and infants.

### New

With respect to a patient with Multiple sclerosis, which of the following alters the risk of a flare post partum

- a) An Epidural
- b) A spinal
- c) A flare in the year pre-partum
- d) A general anaesthetic
- e) Breast feeding

*I'm pretty sure the stem said "alters the risk", i.e. the correct answer could be something which either increases or decreases the risk. Although someone else remembered it as "increases" the risk.*

### Answer C

Surely a flare in the year pre partum

MS society says that pregnant women can have the same anaesthetics (inc epidural/spinal) with no increased risk to the MS.

### Repeat Mar14 125

Adenosine can be used to terminate an arrhythmia due to:

- A. Atrial fibrillation
- B. Atrial flutter
- C. WPW
- D. ??VT
- E. ??Torsades

### Answer C

*Definitely said "terminate" the arrhythmia, so the only possible answer I think can be WPW. In AF/flutter it may help diagnose, but not terminate. Adenosine is considered safe in ORTHODROMIC SVT in WPW by some authors (but not all) -- may have increased risk but is still the best answer. Never use adenosine in antidromic SVT though*

Orthodromic: usually narrow complex tachycardia



Antidromic: wide-complex tachycardia (looks like VT)

**Repeat** Aug12

Mast cell tryptase half life:

1 hours

3 hours

6 hours

12 hours

Answer: 2 hours

[http://www.anzaag.com/Docs/PDF/Management%20Guidelines/BP\\_Anaphylaxis\\_2016.pdf](http://www.anzaag.com/Docs/PDF/Management%20Guidelines/BP_Anaphylaxis_2016.pdf) pg 13

CEACCP 2014 -- 2 hours, but was not an option.

Quick google search and most sites say 2-2.5 hours...

**New**

Best indicator of Severe pulm HT:

A: mean PA pressure 45mmHg

B: orthopnoea PND

C: ex tol less than 4 mets

D: fev1, ...

Answer : probably C as the best of some average options

## Guidelines for the diagnosis and treatment of pulmonary hypertension 2009. Euro heart J

Cant seem to find an answer for this...but it seems to be ex tolerance.

there isn't a diagnostic criteria for severe pulm HTN that I can find.

Orthopnea and PND are NOT classical symptoms of PHTN..as these are left heart signs.

Fev1 doesn't change substantially...as per article.

Ex capacity/NYHA functional class is the best determinant/predictor of mean survival...

Article says that TTE and measuring pressures is not predictive of outcomes...?is this severity

**Repeat** Sep11

Young pregnant patient with mild mitral regurgitation and moderate mitral stenosis, normal LV function. The best delivery method:

A. Epidural anaesthesia LSCS

B. Spinal with LSCS

C. Epidural analgesia and normal vaginal delivery

- D. GA LSCS
- E. Normal vaginal delivery with remifentanyl PCA

C – epi with NVD

Read CEACCP on cardiac disease in preg

<https://academic.oup.com/bjaed/article/9/2/44/299573>

**Repeat** Contained one of the following St John wort questions from Mar13 or Aug13. Can't remember which one!

St John's Wort (*Hypericum perforatum*) potentiates the effects of

- A. Dabigatran
- B. Heparin
- C. Warfarin
- D. Aspirin
- E. Clopidogrel

*or maybe it was this version...*

St John's wort will reduce the effect of

- A. aspirin
- B. clopidogrel
- C. dabigatran
- D. heparin
- E. warfarin

*Note — two very similar but different questions!!*

**St. John's wort:**

- decreases effectiveness of digoxin, antihistamines, immunosuppressants, warfarin, anticonvulsants
- potentiates sedatives, clopidogrel, antidepressants

**?New**, but based on MH59

7/7 post laparotomy platelet down to 40, no bleeding or bruising, but has painful swollen lower leg, most appropriate tx?

- A: Fondaparinux,
- B: lepirudin,
- C: IV heparin,
- D: clexane,
- E: warfarin

If HIT answer probably B

If not HIT probably C

**?Repeat** -- similar to Mar13/Aug13 Type 1 diabetes fasting since 2200, insulin

infusion commenced 0700, BSL 7, what is MOA of insulin?

Skeletal uptake

liver uptake

inhib glucagon (release)

inhib glycogenolysis

This may be a which one doesn't happen Q...

Insulin causes:

- skeletal muscle and fat cells – increased active uptake of glucose by membrane channels.
- Liver cells – increased uptake of glucose by passive diffusion. It does this by converting glucose to glycogen (glycogenesis) so there is a gradient for glucose to move into hepatocyte. In doing so it inhibits glycogenolysis (breakdown of glycogen to glucose)

**Repeat** Mar14

A three year old girl for an elective hernia repair is seen immediately prior to surgery. It is revealed she had 100mL of apple juice 2 hours ago. The best course of action is to:

- A. Postpone surgery for 2 hours
- B. Postpone surgery for 4 hours
- C. Postpone surgery for 6 hours
- D. Cancel surgery
- E. Continue with surgery

Answer E

6:4:2 rule.

6 for solids, 2 for clear fluids.

**New**

Acute intermittent porphyria, signs except:

- A: abdominal pain
- B: hypotension
- C: confusion
- D: tachycardia
- E: peripheral neuropathy

ANSWER B - Hypotension.

Signs of acute attack are CVS instability with tachycardia and hypertension.

Abdo pain/swelling.

CNS – confusion, seizures, neuropathies.

### New

Audit in department of prevalence of acute myocardial ischaemia in vascular surgery. What type of data is this?

- A: Nominal
- B: ordinal
- C: categorical
- D: non-parametric
- E: numerical

Answer E

It is numerical....as its numbers of MI

this is quantitative data....so isn't nominal.

Nominal is categorical eg colour of something.

Ordinal data is categorical data that can be put in an order but doesn't have set measures between points...ie ASA scores

Interval data is ordinal with set measures between but not a true zero (eg Fahrenheit)

Ratio data has set measures between each with true zero. Eg age. .

Categorical -ie Male female

### New

Preop clinic carotid endarterectomy asks about GA vs LA, you tell her:

- A: GA and LA has similar risk of stroke
- B: GA has slightly increased risk of stroke than LA
- C: LA has slightly increased risk of stroke than GA
- D: GA has significantly increased risk of stroke than LA
- E: LA has significantly increased stroke than GA

Answer A

GA and LA have similar risk of stroke.

GALA and Cochrane RV – no statistical difference at 30 days of CVA, MI or death.

No statistical difference in length of stay.

### New

Threshold for micro shock:

- A: 1uA

B: 100uA  
C: 1mA  
D: 5mA  
E: 10mA

Answer B  
100 microamps

**New**

Asystolic arrest adrenaline just given, how often do you give adrenaline?  
*Note, question asked about the asystole, i.e. the non-shockable side of the ALS algorithm.*

Non shockable. Give adren then every 2<sup>nd</sup> cycle. (4 min)

**New**

Hepatic tumour resection, purpose of reducing CVP?

Decreased blood loss

?**New** -- or ?correctly recalled version of [TMP-Jul10-035](#)  
Which is NOT included in the Child-Pugh score?  
GGT

3 synthetic functions – bilirubin, albumin and INR  
2 exam findings – ascites and encephalopathy  
all 5 scored out of 3 – so out of 15.

**Repeat** Aug14

Laser flex tube with double cuffs - how to inflate cuff(s)?

- A Inflate proximal then distal
- B Inflate distal then proximal
- C ?Inflate both with saline?
- D Inflate distal only
- E Inflate proximal only

Answer B

<http://www.healthcare21.eu/wp-content/uploads/2014/07/Covidien-ETT-Brochure.pdf>

?**Repeat** or at least similar to [MC118](#)

Patient with HOCM has HR 60, SBP 70 post induction, what to do:  
A: give volume

- B: adrenaline
- C: metaraminol
- D: ?beta-blocker

Answer C: low SVR 2nd to induction, aramine fixes problem  
 slow full and tight for HOCM.. in reality would give aramine and give fluid but  
 aramine is probably the more urgent one and best answer..

### New

The following changes occur in aging except:  
 increased CSF volume, ...

### Repeat Aug12 97

Paediatric paracetamol loading dose PR mg/kg:

7.5

10

15

20...

*20mg/kg was highest dose option available*

*RCH clinical practice guidelines below*

|   |       |                      |                                  |                                   |
|---|-------|----------------------|----------------------------------|-----------------------------------|
| <b>Paracetamol</b>  | PO/IV | 20 mg/kg<br>(max 1g) | 15 mg/kg (max 1g)<br>4 - 6hourly | 60 mg/kg/day<br>(max 1g) 6 hourly |
| <b>Paracetamol</b><br>Not for use in<br>immunocompromised | PR    | 40 mg/kg<br>(max 1g) | 30mg/kg (max 1g)<br>4 - 6 hourly | Max 5 grams per day               |

**Answer 40/kg load...**

**?Repeat** of Mar14 q108

Postpartum post epidural with peripheral neurology. Answer in this case was probably lumbosacral plexus palsy, but be warned there are many variations on this type question with different answer depending on the neurology description.

**?New** Question not recalled, but the key point was:

Posterior cord of brachial plexus --> weakness of wrist extension