Primary Examination for Financial Risk Certification

1. A patient with severe renal impairment requires regular opioid analgesia for their pain You are concerned about opiate accumulation Which drug in this class is most appropriate in this patient?

A. Oxycodone

B. Dihydrocodeine

C. Pethidine

D. Codeine

E. Morphine

Answer(s): C

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2. A 20 year old woman presents with symptoms and signs suggestive of infectious mononucleosis Proliferation of which cells on the peripheral blood film would best support your diagnosis?

A. Neutrophils

B. Basophils

C. Lymphocytes

D. Monocytes

E. Eosinophils

Answer(s): C

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3. A 24 year old woman presents with an abscess over her buttock. Examination reveals palpable groin lymphadenopathy. Which group of lymph nodes are most likely to be initially involved?

A. Deep inguinal

B. Superolateral superficial

C. Inferior superficial

D. Superomedial superficial

E. External iliac

Answer(s): A

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4. A 50 year old man presents with hypoglycaemia You decide to give him intramuscular glucagon Which organ is most affected by this treatment to increase blood sugar levels?

A. Ileum

B. Adrenal

C. Liver

D. Kidney

E. Pancreas

Answer(s): E

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5. A 47 year old woman with a diagnosis of pulmonary hypertension attends the ED with breathlessness An increase in which physiological parameter is the most likely consequence of this condition?

A. Right ventricular afterload

B. Pulmonary venous resistance

C. Right atrial pressure

D. Pulmonary arterial blood flow

E. Left ventricular contractility

Answer(s): B

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6. A 23 year old presents with episodes of a painful left arm which becomes swollen and cyanosed after they have been kayaking Obstruction of which structure is most likely to cause these symptoms'?

A. Subclavian vein

B. Axillary vein

C. Brachiocephalic trunk

D. Subclavian artery

E. Brachiocephalic vein

Answer(s): D

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7. A patient presents with muscle spasms caused by hypocalcaemia Which substance is used to adjust (or an abnormality in the calcium level?

A. Vitamin D

B. Phosphate

C. Sodium

D. Albumin

E. Chloride

Answer(s): D

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8. You are teaching a medical student and are discussing how fluid compartment ratios can change in relation to age and gender You note that some population groups have proportionally higher total body water which increases the extracellular to intracellular fluid ratio What population group best demonstrates this?

A. Adult female

B. Neonate

C. Child

D. Adult male

E. Elderly

Answer(s): A

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9. A nine month old child is brought to the ED with a (ever and rash The child's mother states that all of her immunisations are up to date What is the most likely cause of this infectious illness?

A. Diphtheria

B. Pneumococcus

C. Haemophilus influenzae b

D. Pertussis

E. Rubella

Answer(s): E

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10. A 50 year old woman with longstanding severe asthma presents with a four day history of diarrhoea and vomiting An imbalance of which hormone is most likely to be causing this clinical picture'?

A. Dihydroepiandrosterone

B. Aldosterone

C. Cortisol

D. Insulin

E. Thyroxine

Answer(s): B

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11. A 54 year old man presents with an incised wound to the anterior compartment of his lower leg Exploration of the wound identifies a complete transection at the origin of the tibialis anterior muscle What associated motor deficit of the toot is most likely in this patient?

A. Plantarflexion and eversion

B. Plantarflexion

C. Dorsiflexion and eversion

D. Plantarflexion and inversion

E. Dorsiflexion and inversion

Answer(s): C

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12. A four year old girl presents with a fever Her skin feels warm to touch What is the most likely mechanism of effective thermoregulation?

A. Cutaneous vasoconstriction

B. Reduced blood velocity in cutaneous vessels

C. Increased cutaneous blood pressure

D. Reduced blood volume in cutaneous vessels

E. Increased sympathetic supply to cutaneous vessels

Answer(s): E

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13. A 68 year old man with a history of Addison's disease presents having recently been diagnosed with a urinary tract infection He is hypotensive, tachycardic and clammy His biochemistry shows hyponatraemia and hyperkalemia.

A. Glucocorticoid deficiency

B. Adrenocorticotropic hormone excess

C. Cortisol deficiency

D. Mineralocorticoid deficiency

E. Beta lipotropin excess

Answer(s): D

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14. A 75 year old woman is prescribed aspirin for secondary prevention following myocardial infarction The formation by platelets of what substance is most likely to be inhibited by this medication?

A. Fibrinogen

B. Fibrin

C. Plasminogen

D. Prostacyclin

E. Thromboxane

Answer(s): E

15. An 80 year old man presents to the ED with clinical features suggestive of ischaemic bowel Which artery is most commonly occluded in this condition?

A. Superior mesenteric

B. Gastroduodenal

C. Inferior mesenteric

D. Coeliac

E. Left colic

Answer(s): A

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16. A 45 year old man with an acute kidney injury is found to have a metabolic acidosis What renal response is most likely to be involved in compensating for this metabolic abnormality?

A. Secretion of ammonium into the tubular lumen

B. Secretion of HC03" into the tubular lumen

C. Secretion of glutamine into the interstitial fluid

D. Carbonic anhydrase - mediated production of phosphate

E. Reabsorption of H*

Answer(s): A

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17. A 56 year old presents unwell They are diagnosed with a hypertensive crisis. You decide to start sodium nitroprusside What best describes the mechanism of action of this drug?

A. Inhibits angiotensin converting enzyme

B. Releases nitric oxide

C. Decreases angiotensin II

D. Decreases the breakdown of bradykmin

E. Antagonises the renm-angiotensm-aldosterone system

Answer(s): B

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18. A 55 year old woman is found to have clinical and biochemical features of cholestatic jaundice. You think her jaundice might be caused by one of her medications.

A. Paracetamol

B. Co-amoxiclav

C. Phenytoin

D. Aspirin

E. Thyroxine

Answer(s): B

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19. A patient presents with an area of cellulitis with discharge on their foot following a puncture wound A swab shows a large number of gram positive rods on initial culture.

A. Helicobacter cinaedi

B. Clostridium perfnngens

C. Streptococcus pyogenes

D. Pseudomonas aeruginosa

E. Staphylococcal aureus

Answer(s): B

20. A 27 year old woman presents with visual problems and has known optic neuritis. What is the most likely cause of the slowing of impulse conduction in her optic nerve?

A. Axonal loss

B. Compression of the nerve

C. Damage to presynaptic calcium channels.

D. Sodium channel blockade at nodes of Ranvier

E. Loss of saltatory conduction.

Answer(s): E