



Final Anesthesia exam

Doctor 2020

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Anesthesia Final 020

NOTE: AN ELITE GROUP OF STUDENTS FROM THE DOCTOR 020 CLASS COLLECTED THESE QUESTIONS, KNOWING THAT THE ANSWERS ARE LIKELY TO BE CORRECT.

AIRWAY MANAGEMENT

1) What is the appropriate non-cuffed endotracheal tube that should be used in a 6-year child undergoing general anesthesia?

- A. 6.5 mm(internal diameter)
- B. 6 mm(external diameter)
- C. 5.5 mm(external diameter)
- D. 5 mm(internal diameter)
- E. 5.5 mm(internal diameter)

Ans:E

2) Which of the following procedures is not a contraindication of using laryngeal mask airway?

- A. Knee arthroscopy procedure
- B. Patients with GERD
- C. Patient with emergent intestinal obstruction
- D. Patient with BMI 38

Ans:A

3) Which of the following endotracheal tube is associated with the least airway resistance?

- A. 8 mm internal diameter, 28 cm length
- B. 8 mm internal diameter, 26 cm length
- C. 6 mm internal diameter, 28 cm length
- D. 6 mm internal diameter, 26 cm length
- E. 5 mm internal diameter, 28 cm length

Ans: B

4) In case you faced difficult endotracheal intubation, what will you do until help arrives?

- A. Do not repeat endotracheal tubing more than 4 times
- B. Revert to non invasive procedures
- C. Quit the procedure and call for help
- D. Change the position of the patient
- E. Switch to another type of invasive ventilation

Ans: B

5) Which of the following is false about laryngoscope?

- A. The tube distal end should ideally be 1 to 2 cm above the Carina,
- B. Head of patient at the Level of the operator's Xiphi-sternum
- C. Introduce the laryngoscope blade at the right side of the tongue
- D. the patient should be in Sniffing position
- E. The tip of laryngoscope should be placed in the pyriform fossa*

Ans: E

6) Which of the following tubes offers the best decrease in aspiration risk?

- A. Combined laryngeal tube (combitube)
- B. LMA
- C. Cuffed endotracheal tube
- D. Non cuffed endotracheal tube

Ans: C

BASIC LIFE SUPPORT

1) Breathing and pulse are checked simultaneously in cardiac arrest because we want to:

- A. Expose the patient to know the cause of cardiac arrest
- B. Turn him on his side
- C. Save time and start chest compression

Ans:C

2) Second ring of chain of survival represents:

- A. Recognition of the patient with cardiac arrest
- B. Call for help
- C. Chest compressions to buy time
- D. DC shock /cardioversion

Ans: C

3) A confusion patient with warning scoring system more than or equal 9

- A. GCS less than 9 and requires intubation
- B. BP>100/50
- C. Minimal risk of heart arrest
- D. Requires an expert person with airway management skills
- E. The patient is in a good condition only admit to the ward

Ans:D

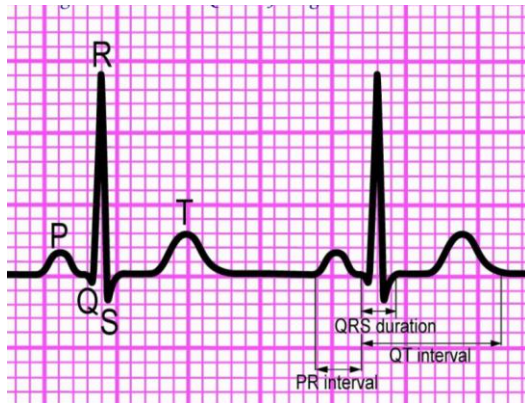
4) Which of the following is an airway cause of cardiac arrest:

- A. Nerve damage
- B. Stridor
- C. Fractured ribs
- D. MI

Ans: Unknown

ADVANCED LIFE SUPPORT

1) Calculate heart rate for the following patient who came to ED with this following ECG?



- A. 50
- B. 60
- C. 75
- D. 90
- E. 110

Ans:C

2) A patient presented to the emergency department with chest pain and palpitations. Blood pressure was 95/50 at the presentation. An ECG was performed and is shown below. What is the best next step in management?



- A. Administer Amiodarone 300 mg IV
- B. Administer Adenosine 6 mg IV
- C. Administer beta blockers
- D. Perform carotid massage
- E. Synchronized DC shock

Ans:E

3) Which of the following favors biphasic defibrillation over monophasic?

- A. Max energy 360 J
- B. 90% success rate of first shock
- C. Cause burns
- D. Synchronized DC shock

Ans: B

4) Which of the following is True about atropine use in life support?

- A. Used in systolic cardiac arrest
- B. Used in pulseless VT
- C. Used in V fib cardiac arrest
- D. Not used in any cardiac arrest
- E. Used in PEA cardiac arrest

Ans:D

5) Which of the following is not a reversible cause of cardiac arrest:

- A. K of 7.2 mEq
- B. Blood loss of 3 liters
- C. Subdural hematoma causing decreased level of consciousness
- D. Increased air pressure in the pleura

Ans: C

VASCULAR ACCESS

There is NO any Questions!!!!!!!!!!

PREOPERATIVE ASSESSMENT

1) All of the following cases are considered difficult for intubation except:

- A. Short neck
- B. Mouth opening 2 cm
- C. Thyromental distance 7 cm
- D. History of neck radiation
- E. Limited neck Extension

Ans:C

FLUID MANAGEMENT

1) All of the following preparations contain Cl⁻, except:

- A. Dextran 70
- B. Hypertonic saline 3%
- C. 5% albumin
- D. Half normal saline
- E. 0.9% Normal saline

Ans: A or C

2) Which of the following is false regarding fluid management?

- A. Insensible water losses occur as perspiration and sweating
- B. Electrolyte requirements decrease with age
- C. Metabolism in cells produces 250 ml of water in 24 hours
- D. Input of fluid has to be exactly the same as output
- E. Percentage of total body water decreases with age

Ans: B

3) Which of the following about blood preparations is incorrect?

- A. Prbc contain 70% hct
- B. Platelets are stored at room temperature
- C. Platelets are 50-70 ml
- D. Cryoprecipitate contains high concentration of factor VIII
- E. 1 unit of blood forms 350ml PRBC

Ans: E

INTRODUCTION TO ANESTHESIA

1) Which of the following is not obligatory in every anesthesia?

- A. Preop evaluation
- B. Hypnosis
- C. Amnesia
- D. Muscle relaxant
- E. Post op care

Ans: D

INHALATION ANESTHETICS

1) Which of the following approach can be applied to avoid n₂o and o₂ mixture induced hypoxia:

- A. NO₂ and ow should be attached mechanically
- B. NO₂ put on the right
- C. O₂ on the right

Ans: A

2) Which of the following in NOT TRUE about isoflurane vaporizer:

- A. High resistance
- B. Unidirectional flow
- C. Sevoflurane can be used in it
- D. Can change internal temperature

Ans:C

3) Which of the following is a difference between desflurane vaporizer and TEC vaporizer?

- A. It doesn't compensate for FGF temperature changes
- B. Desflurane vaporizer has two circuits: one for fresh gas flow and the other for desflurane vapor
- C. Variable concentration of the bypassing gas in the chamber
- D. different calibrations of the flow (sth like that)

Ans:C

INTRAVENOUS ANESTHETICS

1) Which of the following is not true about propofol?

- A. Antipruritic
- B. The most potent cardio depressant
- C. Cause post op vomiting and nausea
- D. 2/3 of patients complain of pain on injection

Ans:C

2) Which of the following is Not true about IV anesthetics?

- A. Best agent to decrease ICP is sodium thiopentone
- B. IV midazolam is the best anesthetic agent for LMA insertion
- C. Most feared complication of etomidate is adrenal suppression

Ans: B

NEUROMUSCULAR BLOCKING AGENT

1) Which of the following is the best indicator about depth of neuromuscular blockade during anesthesia?

- A. Pulse oximeter
- B. BIS
- C. Train of four (TOF)
- D. Capnograph

Ans:C

2) Wrong about neostigmine in the reversal of nondepolarizing NMB:

- A. Compete with non-depolarizing muscle relaxants on receptor binding
- B. Increases Ach molecules concentration in NMJ
- C. Pharmacological reversal of NMBA
- D. Works on nicotinic muscarinic receptors
- E. Inhibit cholinesterase enzyme

Ans:A

3) All of the following cause muscle relaxation by agonist, antagonist activity except:

- A. Isoflurane
- B. Cisatracurium
- C. Rocuronium
- D. Suxamethonium

Ans:A

4) A prolonged block caused by succinylcholine (4-8 hours). What is the likely cause?

- A. Heterozygous cholinesterase deficiency
- B. Heterozygous pseudocholinesterase deficiency
- C. Renal failure
- D. Homozygous pseudocholinesterase deficiency
- E. Homozygous cholinesterase deficiency

Ans:D

5) All of the following are major clinical concerns regarding the use of suxamethonium except:

- A. Burn injury 2 weeks ago
- B. Pre-existing hyperkalemia
- C. Intragastric pressure elevation
- D. Malignant hyperpyrexia
- E. Penetrating eye injury

Ans:C

6) Although suxamethonium has similar structure to acetylcholine, it produces a short-term relaxation of the muscles, it is due:

- A. It takes 5-10 mins to be metabolized at the neuromuscular junction
- B. Inhibition of Na entry
- C. It causes muscle relaxation for 1 minute because it prevents cations from passing the channel

Ans: A

PAIN

1) Visceral pain, which is false?

- A. Involves pleura
- B. Can involve pericardium
- C. May involve peritoneum
- D. Poorly localized
- E. It is always referred to as pain

Ans: E

2) Which of the following is Not True about deep somatic pain?

- A. Muscles are involved
- B. Tendons are involved
- C. Joints are involved
- D. Bone is involved
- E. Well localized

Ans: E

3) Systemic manifestation of pain?

- A. Ileus
- B. Bradycardia
- C. Decrease in cortisol
- D. Hypotension

Ans: A

4) All of the following can be used in control of upper limb peripheral nociceptive pain except?

- A. Paracetamol
- B. Opioid
- C. Regional anesthesia
- D. Anti-inflammatory cox2 inhibitor only
- E. Local anesthesia

Ans: C

5) Which of the following is NOT a side effect of opioids?

- A. Miosis
- B. histamine release
- C. Tachycardia
- D. Nausea and vomiting
- E. constipation

Ans: C

HYPOXIA AND OXYGEN THERAPY

1) CO poisoning causes which type of hypoxia?

- A. Respiratory problems due to V/Q mismatch
- B. Anemic hypoxia
- C. Hypoxic hypoxia
- D. Circulatory hypoxia
- E. Histotoxic hypoxia

Ans: B

2) Which of the following is the most catastrophic complication for (General Anesthesia)?

- A. Hypothermia
- B. Hypotension
- C. Awareness
- D. Hypoxia

Ans: D

3) Which of the following cause the stimulation of carotid and baroreceptors to induce hyperventilation?

- A. Acute asthmatic attack
- B. Co poisoning
- C. Cyanide poisoning
- D. Chronic femoral artery obstruction?
- E. Hb of 7

Ans: A

4) Variable performance devices were called variable because:

- A. They are used for variable periods
- B. Their flow can't exceed peak inspiratory flow rate
- C. They have holes on both sides that allow leakage of inspiratory air
- D. The respiratory rate of the patient is variable
- E. Low flow delivery system

Ans: D

5) Which of the following is an absolute contraindication to CPAP?

- A. Active vomiting
- B. Upper GI surgery
- C. Respiratory and cardiac arrest
- D. Increased total secretions

Ans: C

6) All of the following are difference between variable face masks and fixed face masks except:

- A. Fixed mask entrains flow, while variable mask does not
- B. Variable face masks have holes in it, while face mask does not
- C. Fixed mask contains color coded valve while variable mask does not

Ans: B

7) Which of the following is considered as CPAP and BiPAP main advantage?

- A. Avoidance of endotracheal intubation
- B. Does not need sedation
- C. Increasing tidal volume
- D. Increase O₂ supply to patients

Ans: A

8) Which of the following is the most sensitive way to detect decrease co₂ absorbent

- A. By sight
- B. Increased inspiratory and expiratory co₂
- C. Change in color
- D. Change in airway pressure

Ans: B

LOCAL AND REGIONAL ANESTHESIA

1) Which of the following local anesthetic agents has allergic reaction because of its ester component?

- A. Lidocaine
- B. Mepivacaine
- C. Procaine
- D. Bupivacaine

Ans: C

2) What is the mechanism of action of local anesthetics?

- A. Act as agonists at GABA receptors
- B. Block NMDA receptors
- C. Block Na⁺ channels
- D. Activate chloride channels
- E. Block potassium channels

Ans: C

3) Which of the following types of anesthesia is given in the subarachnoid space?

- A. Epidural
- B. Caudal
- C. Local
- D. Spinal
- E. Plexus

Ans: D

4) Which of the following is blocked in shoulder and upper arm pain surgery?

- A. Axillary nerve block
- B. Supraclavicular nerve block
- C. Saphenous nerve block
- D. Obturator nerve block

Ans: A

5) All of the following are signs of systemic toxicity of local anesthetics except:

- A. Bradycardia
- B. Tachyarrhythmia
- C. Hyponatremia
- D. seizures
- E. Hypotension

Ans: C

RESPIRATORY FAILURE

1) Common causes of type 2 RF?

- A. COPD
- B. Central airway obstruction
- C. Diffusion impairment
- D. Inhibition of respiratory center

Ans: A

2) False about respiratory failure:

- A. The patient is cyanotic
- B. The chest is always wheezy on examination
- C. The patient is tachycardic and tachypneic

Ans: B

3) False about acute respiratory failure?

- A. Can happen in normal healthy people
- B. Head trauma
- C. Brain herniation
- D. Stroke
- E. Happen within days

Ans: E

4) Which of the following is least likely cause of respiratory failure?

- A. Head injury
- B. Stroke
- C. Rotavirus infection
- D. Amyotrophic lateral sclerosis

Ans: C

ANESTHESIA MACHINE

1) Which type of N₂O cylinder is attached to the anesthesia machine?

- A. J cylinder
- B. E cylinder
- C. A cylinder
- D. C cylinder
- E. G cylinder

Ans: B

2) Which of the following is not a component of Mapleson F (pediatrics)?

- A. Breathing tubes
- B. Connections
- C. Fresh gas inlet
- D. Open end reservoir bag
- E. APL valve

Ans: E

3) Which of the following Mapleson systems is best for Spontaneous ventilation?

- A. Mapelson A
- B. Mapelson B
- C. Mapelson C
- D. Mapelson D
- E. Mapelson E

Ans: A

4) DISS system, what is true:

- A. Connects the terminal outlet with pipelines
- B. Connects the pipeline medical gasses to the anesthesia machine
- C. Prevents delivery of hypoxic mixture to the patient during anesthesia

Ans: B

SHOCK

1) Which of the following is NOT a cause of obstructive shock?

- A. Tension pneumothorax
- B. Pericardial effusion
- C. Pericardial tamponade
- D. Massive pulmonary embolism
- E. Restrictive cardiomyopathy

Ans: B

2) When intravascular hypovolemia occurs, which of the following is not seen?

- A. Hypotension
- B. Tachycardia
- C. Low urine output
- D. Pulsus paradoxus
- E. Increased EtCO₂

Ans: E

3) 30-year-old patient, 80 kg, presented to the ED with abdominal stab wound. BP 90/50, urine output 10ml/hour and heart rate 120, which of the following is false about his condition:

- A. He has class III shock
- B. IV furosemide can be given to augment diuresis
- C. He needs blood transfusion immediately
- D. He needs transfer and intubation immediately
- E. Insertion of 16-gauge catheter can be challenging

Ans: B

4) In anaphylaxis due to IV antibiotics administration, which of the following measures is the least likely to be needed?

- A. Stop exposure
- B. Oxygen therapy
- C. IV fluids
- D. Antihistamines
- E. IV epinephrine

Ans: D

EMERGENCY AND TRAUMA CASES

1) Which of the following is a life-threatening emergency?

- A. Intestinal obstruction
- B. Obstructed inguinal hernia
- C. Epidural hematoma
- D. Femur neck fracture
- E. Elective Vp shunt

Ans:A or C

2) All of the following are part of rapid sequence induction except:

- A. Availability of suction
- B. Predetermined IV induction doses
- C. Enough doses of suxamethonium
- D. Nasogastric intubation
- E. Preoxygenation with 100% O₂ for 3-5 mins

Ans:D

PRINCIPLES OF PEDIATRICS

ANESTHESIA

1) Which of the following can't be used as an anesthetic induction agent in children?

- A. Sevoflurane
- B. Isoflurane
- C. Thiopental
- D. propofol

E. Ketamine

Ans:B

2) What is the blood volume of a full-term 3 kg neonate (in ml)?

- A. 220
- B. 240
- C. 270
- D. 320

Ans:C

3) Which of the following is a pain scale used for pediatric patients?

- A. Numerical rating scale
- B. Visual analogue scale
- C. Wong baker faces scale
- D. Psychological evaluation
- E. Nerve conduction study

Ans:C

4) Which of the following is false about airway in children?

- A. The larynx is located anterior to the sixth cervical vertebra
- B. They are obligate nasal breathers until five months of age
- C. Their ventilation is mainly diaphragmatic
- D. They have more angled cords than adults

Ans: A

5) About thermoregulation in pediatrics, what is false?

- A. Heat loss is mainly by radiation
- B. Metabolism of brown fat is primary source of thermogenesis
- C. Hypothermia in neonates is not associated with poor outcomes
- D. High weight to surface area ratio is responsible for more heat loss

Ans: C and D

6) 30 kg (I think 10-year-old) child presented to the ED with internal bleeding, all of the following are true except:

- A. Dextrose containing fluid should be administered
- B. Resuscitation with 600 ml normal saline before surgery is mandatory
- C. Blood transfusion is indicated after loss of 400 ml blood

Ans: UNKNOWN

ANESTHESIA MONITORING IN OR & ICU

1) Which of the following monitoring devices is commonly used to measure oxygen saturation of arterial blood?

- A. Pulse oximetry
- B. ECG
- C. Capnography

Ans:A

2) Which of the following monitoring devices is used to monitor tissue perfusion and oxygenation in critically ill patients?

- A. CVP
- B. SVO₂
- C. Pulse oximetry

Ans:B

3) Which of the following is a monitoring device to measure arterial pressure in real time?

- A. Non invasive arterial blood pressure
- B. Pulse oximetry
- C. Intra arterial line

Ans:C

4) Which monitor is used to assess ventilation?

- A. Capnography
- B. Pulse oximetry
- C. ECG

Ans:A

5) All of the following are indications for mechanical ventilation EXCEPT?

- A- Persistent hypoxemia despite O₂ supply
- B- PH less than 7.3
- C- Hypercapnia with normal ph.
- D- to improve muscle fatigue

Ans:C