



Admin Topics, Disaster etc

Single Choice Questions (SCQ) and Extended Match Questions (EMQ)

Emergency Medicine Fellowship Program

ADMIN MCQs

- Q1** When purchasing equipment for your department, all the following are true EXCEPT:
- A) Biomedical certification is required before commencement of use
 - B) Must be compatible with existing equipment
 - C) Leasing is not a viable option for ED equipment
 - D) Medical and nursing staff must have been consulted
 - E) Occupational health and safety have inspected the equipment and its position in the department
- Q2** A 28-year-old man presents with a severely infected 2-day-old “fight-bite” over the second metacarpal of his dominant hand. The wound opening has purulent drainage and there is a lymphangitic streak along the distal forearm. The patient adamantly refuses hospitalization, states that he questions the EP’s judgment, and begins to leave the emergency department. What is the MOST appropriate action?
- A) Just allow the patient to leave, since he is so disgruntled
 - B) Ask the nurse to have the patient sign a standard against medical advice (AMA) form
 - C) Document an informed refusal on the chart
 - D) Call security to “encourage” the patient to stay
 - E) Document “patient is leaving AMA,” then see the next patient
- Q3** Which of the following is an ethical consideration a physician could use in deciding to withhold or cease resuscitation?
- A) Cost of care
 - B) Pre-existing mental or physical disability
 - C) Recently diagnosed terminal illness
 - D) Patient request after attempted suicide
 - E) Medical futility due to imminently terminal illness

Q4 . A 28-year-old man presents with a severely infected 2-day-old fight-bite over the second metacarpal of his dominant hand. The wound opening has purulent drainage and there is a lymphangitic streak along the distal forearm. The patient adamantly refuses hospitalisation, states that he questions the ED physician's judgment, and begins to leave the emergency department. What is the MOST appropriate action?

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Q5 A 61-year-old man is brought from home to the emergency department by ambulance for fever and cough productive of purulent sputum. Vital signs are: BP 80/54 mm Hg; P 140 bpm; R 36/min; T 96 °F. There was no response to naloxone and D50 in the field. Pulse oximetry is 89% on 4 L/min nasal cannula. The patient is lethargic with clinical signs of pneumonia. The medics report the patient has a new diagnosis of lung cancer. One family member claims the patient had discussed a do not resuscitate (DNR) order with his physician although no signed form was found at the house. The emergency department clerk has placed a call in to the patient's primary care physician. While awaiting the return call, which of the following is the MOST appropriate series of emergency department actions?

- A) Oxygen by mask; intubation; fluids; pressors; blood cultures; IV antibiotics
- B) Oxygen by cannula at 6 L/min; observation
- C) Oxygen by mask; fluids
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- E) Oxygen by mask; fluids, pressors; blood cultures; IV antibiotics

Q6 The following injuries suggest child abuse is the MOST likely diagnosis in a 3 year old EXCEPT

- A) Chip fractures of metaphyses/epiphyses
- B) Spiral fracture of the tibia
- C) Retinal haemorrhages
- D) Transverse fracture of the ulna
- E) Separation of costochondral junctions of ribs

Q7 All of the following statements about midazolam are true EXCEPT

- A) children require smaller mass/kg doses than do adults
- B) it may be given IV, PO, PR, IM, and intranasally
- C) children given midazolam are generally drowsy and disinhibited
- D) its duration of action is around 40 minutes
- E) none of the above

Q8 Which of the following is LEAST likely to be a risk factor for a lethal outcome to a domestic violence situation?

- A) Abused partner obtains a restraining order against abuser
- B) Presence of firearms or other weapons in the household
- C) Abused partner initiates divorce or end of relationship
- D) Abuser harms or threatens partner's children, family, or pets
- E) Abuser publicly displays violent behaviour

Q9 All of the following definitions are true EXCEPT

- A) express consent: consent deferred due to express need to rapidly treat a critically ill patient
- B) implied consent: consent inferred by the patient's actions but without specific agreement
- C) battery: intentional touching of another person's body without authorization
- D) tort: intentional wrong
- E) assault: fear of an offensive touching

Q10 All of the following statements regarding consent for treatment of minors are true EXCEPT

- A) In states without a general consent statute for minors, the physician must obtain parental consent to examine and treat a minor for venereal disease
- B) In an emergency, implied consent is applicable; the EP should not delay care while seeking parental consent
- C) The emergency department cannot require specific documentation from a minor who reasonably and sincerely represents himself or herself as an emancipated minor
- D) If the minor's parents are separated or divorced, with a sole legal custody arrangement for the child, the custodial parent has the right to give consent for treatment
- E) A young person (usually 15 years or older) who is able to understand the risks and benefits of a treatment may make an informed decision, if the risk of treatment is not high

Q11 All of the following are elements of a negligence tort case EXCEPT

- A) expert testimony
- B) duty
- C) breach of duty
- D) damage
- E) causation

Q12 Which of the following scenarios is NOT a violation of the Comprehensive Omnibus Budget Reconciliation Act (COBRA) of 1986?

- A) A medically unstable patient is transferred, due to medical necessity, to a receiving facility with an available higher level of care
- B) A competent, stabilized patient does not sign consent for a transfer
- C) A medically unstable patient is transferred due to lack of insurance or inability to pay
- D) A patient in active labor (contractions) is transferred
- E) A stable patient is referred to his managed care plan without a medical screening examination

Q13 In a rural emergency department, which of the following are considered essential?

- A) 16 hours a day specialist cover
- B) 8 hours a day G.P. cover
- C) 24 hour basic lab tests
- D) 24 hour on call paediatrics
- E) Nurse educators on staff

Q14 The three phases of a disaster response in order (as described by Tintinalli using the ACEP model) are as follows

- A) Notification, implementation, recovery
- B) Activation, implementation, recovery
- C) Implementation, search and rescue, triage
- D) Triage, stabilisation, recovery
- E) Notification, activation, implementation

Q15 All of the following statements regarding physician telephone advice are true EXCEPT

- A) once advice is given, a doctor-patient relationship is established
- B) information followed by advice to come at once to the hospital is appropriate
- C) once advice is given, an institution-patient relationship is established
- D) brief, straightforward advice on a specific treatment is considered legally safe to give
- E) a polite reply of we do not give telephone advice can be appropriate

Q16.All of the following statements concerning domestic violence in the United States are true EXCEPT

- A) 95% of persons subjected to the abuse are women
- B) it involves persons of all socioeconomic levels
- C) the victim may return to the abusive relationship
- D) family counseling is the most effective intervention
- E) 60% of murdered women are killed by domestic partners

ANSWERS

1. C
2. C
3. E
4. C
5. A
6. B
7. A
8. A
9. A
10. A
11. A
12. A
13. D
14. B
15. D
16. D

ADMIN MCQs

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Q3 1. Which of the following is an ethical consideration a physician could use in deciding to withhold or cease resuscitation?

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Q5 Which of the following procedures requires informed consent?

- A)
Pulse oximetry for a patient in respiratory distress
- B)
Foley catheter in a patient with acute urinary retention
- C)
Central intravenous line in an unconscious patient without peripheral venous access
- D)
Peripheral intravenous line in an alert patient
- E)
Spinal tap in an alert patient

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Leasing is not a viable option for ED equipment
- D)
Medical and nursing staff must have been consulted
- E)
Occupational health and safety have inspected the equipment and its position in the department

Q7 Which of the following is NOT one of the five fundamental principles of medical ethics?

- A)
Beneficence (promoting the well-being of others)
- B)

Nonmaleficence (do no harm)

C)

Justice (equitable allocation of scarce resources)

D)

Patient autonomy

E)

Cost-effectiveness

Q8 The patient described in question 6 has retinal hemorrhages on fundoscopic examination and CT reveals bilateral subdural hemorrhages. The remorseful parents admit to violently shaking the child the prior evening because he would not stop crying. All of the following statements regarding Shaken Baby Syndrome are true EXCEPT

A)

retinal hemorrhages are present in 50–80% of cases

B)

external signs of trauma are not visible

C)

50% of survivors have adverse neurologic sequelae

D)

both subdural and intra-parenchymal hemorrhages may occur

E)

meningitis is the most frequent misdiagnosis

Q9 A 2-year-old boy is brought to the emergency department for a medical evaluation by agents from Child Protective Services. The child was just removed from his home because of child maltreatment and resultant psychosocial dwarfism. All of the following are features of psychosocial dwarfism EXCEPT

A)

short stature is a more prominent finding than low weight

B)

delayed or unintelligible speech

C)

eating garbage

D)

disturbed home situation

E)

high levels of growth hormone

Q10 In a Major referral centre emergency department, which of the following are required?

A)

Non-FACEM director of department

B)

On-call 24 hour lab testing

C)

24 hour access to Nuclear medicine

- D)
24 hour staffing by senior RNs with additional training
- E)
12 hour staffing by consultants

Q11 Which of the following should NOT be given a national triage score of 2

- A)
Pyelonephritis
- B)
Acute severe asthma
- C)
Major trauma
- D)
Acute myocardial infarction
- E)
Diabetic ketoacidosis

Q12 In a rural emergency department, which of the following are considered essential?

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16 hours a day specialist cover
- B)
8 hours a day G.P. cover
- C)
24 hour basic lab tests
- D)
24 hour on call paediatrics
- E)
Nurse educators on staff

Q13 How many people are required to attend a situation where mass gathering medicine can be applied

- A)
500
- B)
1000
- C)
5000
- D)
10000
- E)
20000

Q14 The following injuries suggest child abuse is the MOST likely diagnosis in a 3 year old EXCEPT

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- B)
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Implementation, search and rescue, triage
- D)
Triage, stabilisation, recovery
- E)
Notification, activation, implementation

ANSWERS

- 1. D
- 2. A
- 3. E
- 4. C
- 5. E
- 6. C
- 7. E
- 8. B
- 9. E
- 10. D
- 11. A
- 12. D
- 13. B
- 14. B
- 15. B

1. A 28-year-old woman presents to the emergency department at 3:00 am with a chief complaint of insomnia for the past 6 weeks. She denies a past history of depression. The physical examination is normal except for several contusions, ranging in color from red-blue to yellow, on the mid-dorsal aspects of both forearms. The patient claims she sustained these bruises in a fall 3 days ago when she tripped over her husband's duffle-bag. She is tearful and requests a prescription for a sedative-hypnotic. Which of the following is the MOST likely serious condition suggested by this presentation?

- (A) Chronic sleep deprivation
- (B) Extreme incoordination
- (C) Munchausen's syndrome
- (D) Domestic violence
- (E) Pathological lying

2. All of the following statements concerning domestic violence in the United States are true EXCEPT

- (A) it involves persons of all socioeconomic levels
- (B) family counseling is the most effective intervention
- (C) 95% of persons subjected to the abuse are women
- (D) the victim may return to the abusive relationship
- (E) 60% of murdered women are killed by domestic partners

3. All of the following statements regarding the legal aspects of domestic violence in the United States are true EXCEPT

- (A) domestic violence is a felony in all states
- (B) domestic violence is a crime in all states
- (C) marital rape is a crime in many states
- (D) mandatory reporting is not required in many states
- (E) physicians are required by law to report all felonies

4. Which of the following is LEAST likely to be a risk factor for a lethal outcome to a domestic violence situation?

- (A) Presence of firearms or other weapons in the household
- (B) Abused partner initiates divorce or end of relationship
- (C) Abused partner obtains a restraining order against abuser
- (D) Abuser harms or threatens partner's children, family, or pets
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5. A 2-year-old boy is brought to the emergency department for a medical evaluation by agents from Child Protective Services. The child was just removed from his home because of child maltreatment and resultant psychosocial dwarfism. All of the following are features of psychosocial dwarfism EXCEPT

- (A) high levels of growth hormone
- (B) short stature is a more prominent finding than low weight
- (C) delayed or unintelligible speech

- (D) eating garbage
- (E) disturbed home situation

6. An unconscious 13-month-old boy is brought to the emergency department by paramedics. He was fine when he went to bed the previous evening. No other family members are ill. Vital signs are BP 82/54 mm Hg; P 130 bpm; R 36/min; T 98.9 °F. The airway is clear, and pupils are equal, round, and reactive at 3 mm. His rapid glucose test value is 80 mg/dl. The patient is small for his age and has poor hygiene. Examination of the chest and abdomen are unremarkable. The neurologic examination is remarkable only for an altered level of consciousness. There are no visible signs of trauma on the skin or scalp. The child is intubated to protect the airway. Post-intubation film shows good ETT placement. Activated charcoal is administered by nasogastric tube. An intravenous line is started and blood chemistries are sent to the lab. What is the MOST important bedside diagnostic evaluation indicated next?

- (A) Rapid hemoglobin-hematocrit
- (B) Capnometry
- (C) Stool culture
- (D) Urinalysis
- (E) Fundoscopy

7. The patient described in question 6 has retinal hemorrhages on fundoscopic examination and CT reveals bilateral subdural hemorrhages. The remorseful parents admit to violently shaking the child the prior evening because he would not stop crying. All of the following statements regarding Shaken Baby Syndrome are true EXCEPT

- (A) retinal hemorrhages are present in 50–80% of cases
- (B) both subdural and intra-parenchymal hemorrhages may occur
- (C) external signs of trauma are not visible
- (D) 50% of survivors have adverse neurologic sequelae
- (E) meningitis is the most frequent misdiagnosis

8. A 4-year-old boy brought to the emergency department by his mother for altered level of consciousness has a rapid glucose value of 35 mg/dl. He wakes up after a bolus of D25. Later, one of the emergency department nurses observes the mother begin to inject an unknown solution into the child's IV line with a syringe. The mother stops when confronted; a vial of regular insulin is found in her handbag by security. She has newly diagnosed diabetes mellitus. This presentation is best characterized as an example of which of the following conditions?

- (A) Intentional poisoning
- (B) Munchausen's syndrome
- (C) Attempted homicide
- (D) Child abuse
- (E) Polle's syndrome

9. Which of the following is an ethical consideration a physician could use in deciding to withhold or cease resuscitation?

- (A) Cost of care
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- (A) Oxygen by cannula at 6 L/min; observation
- (B) Oxygen by mask; fluids
- (C) Oxygen by mask; fluids; pressors
- (D) Oxygen by mask; fluids, pressors; blood cultures; IV antibiotics
- (E) Oxygen by mask; intubation; fluids; pressors; blood cultures; IV antibiotics

11. All of the following are components of adequate decision-making capacity in a patient EXCEPT

- (A) global decision-making ability
- (B) knowledge of the options
- (C) awareness of the consequences of each option
- (D) appreciation of the personal costs of the options in relation to the patient's relatively stable values and preferences
- (E) appreciation of the benefits of options in relation to the patient's relatively stable values and preferences

12. All of the following are elements of a negligence tort case EXCEPT

- (A) duty
- (B) breach of duty
- (C) damage
- (D) expert testimony
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13. All of the following statements regarding physician telephone advice are true EXCEPT

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14. Which of the following scenarios is NOT a violation of the Comprehensive Omnibus Budget Reconciliation Act (COBRA) of 1986?

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15. All of the following statements regarding consent for treatment of minors are true EXCEPT

- (A) In an emergency, implied consent is applicable; the EP should not delay care while seeking parental consent
- (B) The emergency department cannot require specific documentation from a minor who reasonably and sincerely represents himself or herself as an emancipated minor
- (C) A young person (usually 15 years or older) who is able to understand the risks and benefits of a treatment may make an informed decision, if the risk of treatment is not high
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16. All of the following definitions are true EXCEPT

- (A) tort: intentional wrong
- (B) assault: fear of an offensive touching
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- (D) implied consent: consent inferred by the patient’s actions but without specific agreement
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17. Which of the following procedures requires informed consent?

- (A) Peripheral intravenous line in an alert patient
- (B) Spinal tap in an alert patient
- (C) Pulse oximetry for a patient in respiratory distress

- (D) Foley catheter in a patient with acute urinary retention
- (E) Central intravenous line in an unconscious patient without peripheral venous access

18. A 28-year-old man presents with a severely infected 2-day-old “fight-bite” over the second metacarpal of his dominant hand. The wound opening has purulent drainage and there is a lymphangitic streak along the distal forearm. The patient adamantly refuses hospitalization, states that he questions the EP’s judgment, and begins to leave the emergency department. What is the MOST appropriate action?

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19. Which of the following is NOT one of the five fundamental principles of medical ethics?

- (A) Patient autonomy
- (B) Cost-effectiveness
- (C) Beneficence (promoting the well-being of others)
- (D) Nonmanficence (do no harm)
- (E) Justice (equitable allocation of scarce resources)

Administration / Legal / Ethics

1	D	2	B	3	A	4	C
5	A	6	E	7	C	8	E
9	B	10	E	11	D	12	D
13	B	14	C	15	D	16	E
17	B	18	B	19	B		

DISASTER & ENVIRONMENTAL MCQs

Q1 In regard to Heat Stroke which of the following statements is TRUE?

- A) Children are less at risk of heat stroke than adults
- B) Beta-blockers are protective against heat stroke
- C) Rhabdomyolysis is an early complication
- D) Anhydrosis is present in 80 with exertional heat stroke
- E) Treatment includes spraying the patient with ice-cold water

Q2 The most sensitive area in the nervous system to heat stroke is

- A) The basal ganglia
- B) The medulla oblongata
- C) The cerebellum
- D) The hippocampus
- E) The spinal cord

Q3 The most important treatment for high altitude cerebral oedema is?

- A) Antiemetics
- B) Descent to a lower altitude
- C) Acetazolamide
- D) Head elevation 30 degrees
- E) Thiazide diuretics

Q4 Regarding lightning strike

- A) Diuretics are useful in management
- B) Reversal of normal triage principles used in multi-victim incidents
- C) Mortality of 70%
- D) Respiratory arrest secondary to cardiac arrest
- E) Associated with massive burns

Q5 In Near drowning which of the following in the ED is not regarded as a good prognostic factor?

- A) Normal head CT

- B) Hypothermia following kids in cold (<10 degree) water
- C) Any motor response to pain on arrival
- D) Perfusing cardiac rhythm on arrival
- E) Pupillary response on arrival

Q6 Which one of the following has been identified as the biggest recurrent problem in the setting of a disaster?

- A) Communication
- B) Personnel
- C) Transportation
- D) Supplies
- E) Food

Q7 All of the following are part of the management of myoglobinuria following acute electrical injury EXCEPT

- A) monitoring urine output
- B) mannitol
- C) fluid resuscitation
- D) bicarbonate
- E) intravenous pyelography (IVP)

Q8 The Joint Commission on Accreditation of Health Organizations (JCAHO) requires every hospital to have a written disaster plan. How often must it be tested?

- A) Four times a year
- B) Three times a year
- C) Once a year
- D) Twice a year
- E) None of the above

Q9 Where is the best location to apply triage tags during a multiple casualty incident such as a bus crash?

- A) At the casualty collection point
- B) At the on-site hospital

- C) At the first encounter with a patient
- D) At the incident command post
- E) In the ambulance

Q10 All of the following treatment modalities should be used during a disaster setting EXCEPT

- A) direct pressure for haemorrhage control
- B) CPR
- C) spine immobilization
- D) airway control
- E) oxygen administration

Q11 In lightning injury:

- A) myoglobinuric renal failure is a common sequelae
- B) the classic skin burn resembles an inverted pine tree pattern
- C) in an arrested patient cardiac massage is the highest priority
- D) tympanic membrane rupture is common
- E) in a mass casualty situation the apparently dead nearly always die

Q12 All of the following are true of an “incident commander” EXCEPT

- A) the incident commander provides medical oversight
- B) the incident commander is typically chosen from fire or police personnel
- C) the incident commander works closely with the EMS branch director
- D) the incident commander organizes the operations at the multi-casualty site
- E) the incident commander is located at an incident command post uphill and upwind from the disaster site

Q13 At what amperage will pain, fainting, exhaustion, and mechanical injury occur when a 60-cycle current passes through the body?

- A) 6 A
- B) 5 mA
- C) 10 to 15 mA
- D) 100 mA
- E) 50 mA

Q14 Altitude illness - the following are true EXCEPT

- A) Nifedipine may be considered in the treatment of High altitude pulmonary edema
- B) Truncal ataxia is an important finding indicating progression of AMS to HACE
- C) Acetazolamide is effective in the treatment of severe AMS progressing to HACE
- D) Altitude illness is a clinical diagnosis
- E) Acute mountain sickness (AMS) and High altitude cerebral edema (HACE) represents the same illness at different stages on a continuum

Q15 Which of the following is FALSE after vapour exposure to nerve gas agents like Sarin and Tabun?

- A) Miosis can last for several weeks after exposure
- B) Visual acuity may be reduced for several days
- C) Lacrimation is a reliable sign
- D) Generalised sweating is common
- E) Nausea and vomiting are common

Q16 Which of the following best describes the mechanism known as the “hunting response” as a protection against frostbite?

- A) Arteriole to venule shunting of blood in threatened tissue
- B) Vasospasm of cold injured tissue to keep core temperature up
- C) Venodilation of threatened tissue to keep temperature of tissue up
- D) Arteriodilation of threatened tissue to maintain tissue temperature
- E) Preferential recruitment of antioxidants to the tissue to inhibit damage at the cellular level

Q17 Regarding acclimatisation changes seen in Hyperthermia

- A) Plasma volume falls
- B) Aldosterone levels drop and NaCl concentration in sweat rises
- C) Sweat production rate falls
- D) Peripheral blood flow decreases
- E) Sweating occurs at lower temperatures

Q18 A 40-year-old man presents to the emergency department complaining of fever,

profound myalgias, and diffuse body cramping. His wife tells you that he has not been feeling well since this afternoon after his outpatient hernia repair. His oral temperature is 41 °C and you note muscle rigidity on examination. Which of the following is the MOST critical intervention?

- A) IV dantrolene
- B) IV gentamicin
- C) Cooling blanket
- D) IV lorazepam
- E) Oral acetaminophen

Q19 With regard to pre-hospital interventions, which of the following is FALSE?

- A) Pre-hospital diuretic and nitrate use in pulmonary oedema significantly improves mortality
- B) Early defibrillation forms part of the chain of survival
- C) The evidence for the benefit of pre-hospital EMS rapid sequence intubation is equivocal
- D) Less than 5% of patients with chest pain that call an ambulance service are candidates for thrombolytic therapy
- E) There is good evidence that IV cannulation and fluid resuscitation in bleeding trauma patients is beneficial

Q20 Which is false with regards to the transport modes available for retrieval?

- A) Rotary wing aircraft speed is 2-3x that of ground vehicle
- B) Predetermined helicopter retrieval distance is 50- 400 km
- C) Helicopters cannot be pressurised
- D) There are no absolute contra-indications to air-medical transfer
- E) Bowel surgery within last 10/7 is a relative contra-indication to air-medical transfer

Q21 Which of the following pre-hospital interventions by paramedics has evidence for benefit?

- A) Endotracheal intubation of trauma patients
- B) IV fluid administration to bleeding patients
- C) Use of MAST suit in post-traumatic haemorrhage
- D) Use of parenteral benzodiazepines in status epilepticus
- E) Prehospital hypertonic saline in traumatic brain injury

Q22 Nerve gas agent exposure

- A) Can cause localised sweating on dermal exposure
- B) Diarrhoea is almost universal
- C) Secondary exposure to carers is likely if the victim is not decontaminated with copious bathing in warm, soapy water
- D) Has no antidote therapy, only supportive care
- E) Will cause an Adrenergic toxidrome

Q23 Which of the following regarding Radiation is INCORRECT?

- A) It is important to distinguish exposure to radiation from contamination with radioactive matter
- B) 0.25 sievert (Sv) represents a significant exposure of whole body radiation.
- C) There are three phases described in the Acute Radiation Syndrome
- D) Haemopoietic recovery commences 30 days after exposure
- E) The LD50 at 60 days for whole body exposure is around 4.5 Sv

Q24 Transfer by helicopter would not be generally be considered safe when the patient:

- A) has an acute head injury and suspected increased intracranial pressure
- B) has a pneumothorax after blunt chest trauma, with an intercostal catheter in place.
- C) has emphysema and requires chronic oxygen therapy
- D) is a prisoner and requires emergency care at a hospital
- E) is having an acute myocardial infarction

Q25 A 29-year-old burn victim is being transported by air ambulance from a fire to the nearest burn center 175 miles away. The patient is intubated and on 100% oxygen with two 16-gauge IVs in place. Shortly after take-off, the patient's status deteriorates and he becomes hypotensive. The MOST probable cause of his decreased blood pressure is

- A) sphygmomanometer malfunction
- B) septic shock
- C) endotracheal tube balloon rupture
- D) air embolism
- E) desaturation of circulating hemoglobin

Q26 Who has the ultimate responsibility for the quality of medical care provided in

an EMS system?

- A) The local EMS medical director
- B) The fire chief
- C) The Emergency Medical Oversight Committee
- D) The mayor
- E) The regional EMS committee chair

Q27 Which of the following is FALSE regarding submersion injury?

- A) Drowning is death by asphyxia after submersion in a liquid.
- B) 40-50 of all drownings and near-drownings occur in the 0-4 age group.
- C) In children boys make up five times as many deaths as girls.
- D) Near-drowning is long term survival after liquid submersion.
- E) Immersion syndrome is death due to a cardiac event on being immersed in water

Q28 Which of the following is responsible for the “hypoxic ventilatory response” during an abrupt high altitude ascent?

- A) Acute hypercarbia
- B) Atrial stretch receptors sense the increase in cardiac output
- C) Carotid body senses arterial oxygenation and relays information to the central respiratory centre
- D) Atrial natriuretic factor secretion causes excess volume excretion leading to metabolic alkalosis
- E) Metabolic alkalosis causes attenuation of the central respiratory centre in the medulla

Q29 The statement “no one is dead until they are warm and dead” applies to treating patients who are hypothermic. Resuscitative efforts should continue until the core temperature of the patient is at least

- A) 32 degrees
- B) 35 degrees
- C) 37 degrees
- D) 28degrees
- E) Resuscitation should continue for 30 minutes and then cease if unsuccessful

Q30 Type II blast injuries include

- A) damage from “spalling,” which produces fragmentation of the medium through which the shock wave travelled
- B) those secondary to being struck by flying debris
- C) tympanic membrane rupture with subsequent permanent hearing loss
- D) injuries from inhalation of debris, toxins, or thermal burns
- E) bowel rupture as a result of environmental pressure change

Q31 At a core temperature of 28 degrees, which of the following occurs

- A) Hyperglycaemia
- B) Thrombocytosis
- C) Hypokalaemia
- D) Pinpoint fixed pupils
- E) Severe shivering

Q32 The following drugs can be used in the treatment of true heat stroke:

- A) NaHCO₃
- B) mannitol
- C) phenobarbitone
- D) chlorpromazine
- E) all of the above

Q33 A 48-year-old fire-fighter with a history of hypertension presents to the emergency department after fighting a fire in a small home for 1 hour. His complaints include slight headache and light-headedness. On initial evaluation you notice that he is alert and awake and there is no visible area of burn. His pulse oximeter reads 99% on room air and other vitals are within normal limits. You administer hi-flow oxygen by mask and observe him for 30 minutes. His symptoms resolve and he is released to return to the station. Four hours later, he returns to the emergency department with a severe headache and epigastric discomfort. His ECG reflects frequent premature ventricular contractions but no ischemic changes. What is the best explanation for the fire-fighter’s current presentation?

- A) Phosgene poisoning
- B) Cyanide toxicity, delayed
- C) Carbon monoxide toxicity
- D) Acute myocardial infarction
- E) Viral syndrome

ANSWERS

1. C
2. C
3. B
4. B
5. A
6. A
7. E
8. D
9. A
10. B
11. D
12. A
13. C
14. C
15. C
16. A
17. E
18. A
19. E
20. C
21. D
22. A
23. C
24. D
25. D
26. A
27. D
28. C
29. A
30. B
31. A
32. E
33. C

DIRECTIONS: Each question below contains five suggested responses. Select the one best response to each question.

110. All of the following are elements of Public Law 93-154 EXCEPT
- (A) training
 - (B) mutual aid
 - (C) disaster planning
 - (D) research
 - (E) transportation
111. All of the following individuals are considered “first responders” EXCEPT
- (A) police
 - (B) firefighter
 - (C) EMT-P
 - (D) park ranger
 - (E) volunteer
112. A 29-year-old burn victim is being transported by air ambulance from a fire to the nearest burn center 175 miles away. The patient is intubated and on 100% oxygen with two 16-gauge IVs in place. Shortly after take-off, the patient’s status deteriorates and he becomes hypotensive. The MOST probable cause of his decreased blood pressure is
- (A) desaturation of circulating hemoglobin
 - (B) air embolism
 - (C) endotracheal tube balloon rupture
 - (D) sphygmomanometer malfunction
 - (E) septic shock
113. “Indirect medical control” includes each of the following EXCEPT
- (A) radio communication with personnel in the field
 - (B) development of protocols
 - (C) medical accountability
 - (D) ongoing education
 - (E) quality assurance
114. All of the following treatment modalities should be used during a disaster setting EXCEPT
- (A) airway control
 - (B) oxygen administration
 - (C) direct pressure for hemorrhage control
 - (D) spine immobilization
 - (E) CPR
115. All of the following are true of an “incident commander” EXCEPT

- (A) the incident commander is typically chosen from fire or police personnel
- (B) the incident commander is located at an incident command post uphill and upwind from the disaster site
- (C) the incident commander organizes the operations at the multicasualty site
- (D) the incident commander provides medical oversight
- (E) the incident commander works closely with the EMS branch director

116. All of the following are examples of classification systems for disasters EXCEPT

- (A) level I, II, and III
- (B) manmade vs natural
- (C) internal vs external
- (D) potential injury-creating event (PICE) nomenclature
- (E) multiple casualty incident (MCI)

117. Paramedics are called to the scene of a well known alcoholic who has fallen and lacerated his scalp and is unresponsive. They apply pressure to the wound and transport him to the nearest hospital. What authority are the paramedics using for their treatment and destination decisions?

- (A) Deferred consent
- (B) Informed consent
- (C) The emergency rule and implied consent
- (D) COBRA
- (E) Standing orders

118. Where is the best location to apply triage tags during a multiple casualty incident such as a bus crash?

- (A) At the first encounter with a patient
- (B) At the incident command post
- (C) At the casualty collection point
- (D) At the on-site hospital
- (E) In the ambulance

119. Which one of the following has been identified as the biggest recurrent problem in the setting of a disaster?

- (A) Transportation
- (B) Supplies
- (C) Food
- (D) Communication
- (E) Personnel

120. The Joint Commission on Accreditation of Health Organizations (JCAHO) requires every hospital to have a written disaster plan. How often must it be tested?

- (A) Once a year
- (B) Twice a year
- (C) Three times a year
- (D) Four times a year
- (E) None of the above

121. According to the EMS Systems Act of 1973, each of the following are considered basic elements of a prehospital care report EXCEPT

- (A) patient demographics
- (B) incident location
- (C) patient complaint
- (D) EMS transport time
- (E) EMS scene time

122. Who has the ultimate responsibility for the quality of medical care provided in an EMS system?

- (A) The fire chief
- (B) The mayor
- (C) The Emergency Medical Oversight Committee
- (D) The local EMS medical director
- (E) The regional EMS committee chair

EMS / Disasters

110	D	111	C	112	B	113	A
114	E	115	D	116	E	117	C
118	C	119	D	120	B	121	E
122	D						

- 1) Sexual assault does not include
 - a) rape
 - b) forced sexual activity that does not result in penetration
 - c) oral or anal intercourse
 - d) flashing ones genitalia at the victim
 - e) attempted rape

- 2) Which statistics are incorrect with regard to sexual assault?
 - a) 90% of victims of sexual assault are women
 - b) 98% of offenders are men
 - c) 1.5% of the adult women are sexually assaulted each year
 - d) 25% of sexual assault victims report the incidence to police
 - e) less than 5% of sexual assault victims need admission to hospital

- 3) The definition of rape is?
 - a) penile penetration of the labum majus
 - b) penile penetration of the labum minora
 - c) penile penetration of the distal most walls of the vagina
 - d) deep penile penetration of the vagina
 - e) does not require any of the above

- 4) Most non genital injuries of sexual assault are found on the
 - a) head
 - b) arms
 - c) chest
 - d) back
 - e) legs

- 5) Which is true with regard to specimen collection of a sexual assault?
 - a) vaginal and cervical swabs are taken with a wet swab stick and plated onto slides. Both slide and swab are included for evidence
 - b) semen on the skin is collected by using a wet swab stick then a dry swab stick, both are plated onto slides and all swabs and slides are included for evidence
 - c) a dry swab stick rubbed in the buccal mucosal is insufficient to gain pt DNA for comparison
 - d) pt blood collected for drug analysis put into normal hospital collection tubes but these tubes go with the police for forensic assessment
 - e) finger nails scrapings must be rubbed on a glass slide at the time of collection

- 6) The risk of becoming pregnant from a rape is
 - a) 15%
 - b) 10%
 - c) 7.5%
 - d) 5%
 - e) 2.5%

- 7) Which is false?
 - a) the likelihood of getting sperm from the vagina at 72 hours is very low

- b) acid phosphatase is normally found in both seminal fluid and vaginal fluid
- c) acid phosphatase can be detected in the vagina for up to 14 hours
- d) PSA can be detected in the vagina for up to 48 hours
- e) A police officer, usually female, must be present at the examination to ensure the 'chain of evidence' is continued

8. How should the morning after pill be taken?

- a) two OCP each containing ethinyl oestradiol 50micrograms within 12 hours of sexual intercourse and two more taken at 72 hours post sexual intercourse
- b) two such pills taken as a single dose within 72 hours of sexual intercourse
- c) two such pills taken within 72 hours of sexual intercourse and two more taken twelve hours later
- d) two pills taken at twelve hours post sexual intercourse and two more taken 72 hours later
- e) two pills taken with 12 hours of sexual intercourse does not require a second dose

9.) With regards to the forensic medical examination of a sexual assault which is false?

- a) Photography of genitalia is not allowed routinely
- b) Each item of clothing that a person is wearing must be placed in a separate bag, they cannot be put in the same bag
- c) All clothes and specimens should be handed directly to the attending police officer
- d) The results of the forensic tests are available for the victim if they approach the VIFM
- e) Informed consent for specifically for specimen collection is required

10) Which is incorrect with regards to death in the ED?

- a) rarely should any information about death be given over the telephone
- b) once a pt is dead organ donation is no longer possible
- c) generally sedatives should not be given to a grieving relative as it only lengthens the grieving process
- d) brain death is the time that brain death is established not when life support is ceased
- e) a relative at the bedside during a resuscitation has been shown to be beneficial when coping with the pts death

11.) With regards to domestic violence which is false?

- a) 95% of the time the women is the victim
- b) 30 – 50% of reported cases of spousal abuse also report child abuse
- c) one of the lowest risk times for domestic violence is during pregnancy
- d) injuries especially include head and neck
- e) it is more common in women of colour and poverty

12. Which of the below is not very suggestive of domestic violence?

- a) forearm fracture
- b) substantial delay between injury and seeking medical attention
- c) facial trauma
- d) multiple injuries in different stages of healing

e) fractured first metatarsal

25. Examining a girl who is victim of sexual assault, which is false?

- a) they are usually examined in the frog leg position
- b) the use of a small speculum is usually advocated
- c) general anaesthetic should only be used if internal injuries requiring surgical repair are suspected
- d) the hymen can be best seen without instrumentation and the girl supine with her knees drawn to her chest
- e) semen fluoresces with a Woods Lamp

ANSWERS 1)D 2)D 3)A 4)A 5)B 6)D 7)E 8)C 9)D 10)B 11)C 12)E 25)B

RADIOLOGY

1. Which ultrasound examinations are allowed to be learnt and used as credentialed by the ACEM?

- a) Focused Abdominal Sonography for Trauma
- b) AAA
- c) Ectopic pregnancy
- d) A and B
- e) A,B and C

2. What does credentialing by the ACEM involve?

- a) an ultrasound workshop
- b) logged proctored examinations, 25 FAST and 15 AAA
- c) a clinical examination
- d) yearly, 3 hours of training and a target number of examinations
- e) all of the above

3. Which examination is not part of a FAST ultrasound?

- a) view heart via a subcostal approach
- b) pouch of Douglas
- c) morrison's pouch
- d) parenchyma of liver and spleen
- e) splenic/renal space

4. What amount of fluid can reasonably be detected by 90% of ED physicians on FAST ultrasound in Morrison's Pouch?

- a) 100ml
- b) 400ml
- c) 600ml
- d) 850ml
- e) 1200ml

5. What are the main two indications for MRI in the ED currently?

- a) SC compression
- b) Occult femoral neck fractures
- c) Cerebral infarction
- d) Cerebral angiography
- e) Paediatric cartilage fractures
- f) Aortic dissection

6. Which of these IS OK in an MRI machine?

- a) internal cardiac pacemakers and defibrillators
- b) cochlear implants
- c) credit cards
- d) some cerebral aneurysm clips
- e) false teeth

ANSWERS 1)E 2)E 3)D 4)D 5)A and B, the rest are potential future uses 6)E

MCQ Administration

1	Which of the following is FALSE?
A	Performance indicator threshold is set at 75 % for ATS 3 patients
B	Patient care time = Departure Time - Time of initial assessment
C	For patients who die in ED, Total ED time = Time of death - Arrival time
D	Rural ED's are prone to over triage
Answer	

2	According to the ACEM, which of the following is TRUE ?
A	It is permissible to refer to a fellow colleague as an emergency doctor
B	The "emergency department" sign, has to be red writing on a white background
C	White cross on blue background is a recognisable Australian symbol, denoting emergency health care
D	That the term "acopia" is inappropriate and should be replaced by "failure of social support services"
Answer	

3	A 15 year old female arrives in the department with abdominal pain. Investigations reveal a positive BHCG and a right adnexal mass on ultrasound with free fluid. All of the following are true EXCEPT
A	A laparoscopy can proceed once consent is obtained from the patient without informing the parents if this is what the patient wishes
B	Consent for treatment from the medical director is not required if she becomes hypotensive and unconscious
C	Refusal of treatment is valid as long as it is an informed choice
D	Her Jehovah Witness parents objection to transfusion is not an absolute contra-indication to blood products
Answer	

4	Re 'did not wait' (DNW) patients, which of the following is FALSE ?
A	They ultimately have a 5-10% admission rate
B	Those who leave almost immediately are more likely to find alternatives elsewhere and drive a European car
C	Those who wait the longest before leaving often do not seek help elsewhere
D	Patients with previous drug seeking behaviour /IVDU who DNW are usually low risk
Answer	

5	Which of the following is NOT considered an essential physiological monitor for an acute treatment area?
A	ECG
B	EtCO2
C	NIBP
D	Temperature
Answer	

6	All of the following presentations have an appropriately assigned ATS EXCEPT?
A	ATS 1 – cardiac arrest
B	ATS 2 – severe pain
C	ATS 3 – moderate blood loss
D	ATS 4 – chest pain of probable non cardiac cause
Answer	

7	A patient makes a formal complaint that the care he received was inadequate, the doctor did not perform the appropriate investigations and that they were rude throughout the time the patient was in the emergency department. On reviewing the notes, there are multiple comments about the patient being abusive and changing their story trying to manipulate the situation. How do you respond?
A	Use the letter to finish making your collection of origami paper swans for this week – all with complaints from this individual
B	Write a letter responding that the patients own behaviour was the factor that produced this response
C	Respond with a letter within 72 hours apologising for any distress, investigate by speaking with involved staff and asking them to document the encounter further if appropriate, use as a source of education
D	Write a guideline for management of this patient, put an alert on EDIS, response letter to patient includes copy of guideline and informs them that this is the approach that will be taken if they were to present again
Answer	

8	A patient who has been given a triage category of 3 after a head injury does not wait for treatment, he did not inform staff he was leaving. Which of the following best states the issues arising from this.
A	Patient left of own will, no longer EDs responsibility (autonomy trumps duty of care)
B	ED is in breach of its duty of care, should immediately track down patient and ensure they return to ED
C	Is of concern as may not be competent to make decisions, a follow up call on next business day is appropriate
D	Is of concern to not be assessed after a head injury, a follow up call should be made attempting to find patient and ensuring either sought alternative help or at least has a responsible person with him who can enlist aid/return him to ED should he deteriorate
Answer	

9	When purchasing equipment for ED, all the following are true EXCEPT:
A	Biomedical certification is required before commencement of use
B	Must be compatible with existing equipment
C	Leasing is not a viable option for ED equipment
D	Medical and nursing staff must have been consulted
Answer	

10	In a rural ED, which of the following are considered essential?
A	16 hours a day specialist cover
B	8 hours a day G.P. cover
C	24 hour basic lab tests
D	24 hour on call paediatrics
Answer	

11	In a Major referral centre ED, which of the following are required?
A	Non-FACEM director of department
B	On-call 24 hour lab testing
C	24 hour access to Nuclear medicine
D	24 hour staffing by senior RNs with additional training
Answer	

12	Which of the following is FALSE?
A	Performance indicator threshold is set at 75 % for ATS 3 patients
B	Patient care time = Departure Time - Time of initial assessment
C	For patients who die in ED, Total ED time = Time of death - Arrival time
D	Rural ED's are prone to over triage
Answer	

13	According to the ACEM, which of the following is TRUE?
A	It is permissible to refer to a fellow colleague as an emergency doctor
B	The “emergency department” sign, has to be red writing on a white background
C	White cross on blue background is a recognisable Australian symbol, denoting emergency health care
D	That the term “acopia” is inappropriate and should be replaced by “failure of social support services”
Answer	

14	A 15 year old female arrives in the department with abdominal pain. Investigations reveal a positive BHCG and a right adnexal mass on ultrasound with free fluid. All of the following are true EXCEPT
A	A laparoscopy can proceed once consent is obtained from the patient without informing the parents if this is what the patient wishes
B	Consent for treatment from the medical director is not required if she becomes hypotensive and unconscious
C	Refusal of treatment is valid as long as it is an informed choice
D	Her Jehovah Witness parents objection to transfusion is not an absolute contra-indication to blood products
Answer	

15	Re ‘did not wait’ (DNW) patients, which of the following is FALSE?
A	They ultimately have a 5-10% admission rate
B	Those who leave almost immediately are more likely to find alternatives elsewhere and drive a European car
C	Those who wait the longest before leaving often do not seek help elsewhere
D	Patients with previous drug seeking behaviour /IVDU who DNW are usually low risk
Answer	

16	Which of the following is NOT considered an essential physiological monitor for an acute treatment area?
A	ECG
B	EtCO2
C	NIBP
D	Temperature
Answer	

17	All of the following presentations have an appropriately assigned ATS EXCEPT?
A	ATS 1 – cardiac arrest
B	ATS 2 – severe pain
C	ATS 3 – moderate blood loss
D	ATS 4 – chest pain of probable non cardiac cause
Answer	

18	A patient makes a formal complaint that the care he received was inadequate, the doctor did not perform the appropriate investigations and that they were rude throughout the time the patient was in the emergency department. On reviewing the notes, there are multiple comments about the patient being abusive and changing their story trying to manipulate the situation. How do you respond?
A	Use the letter to finish making your collection of origami paper swans for this week – all with complaints from this individual
B	Write a letter responding that the patients own behaviour was the factor that produced this response
C	Respond with a letter within 72 hours apologising for any distress, investigate by speaking with involved staff and asking them to document the encounter further if appropriate, use as a source of education
D	Write a guideline for management of this patient, put an alert on EDIS, response letter to patient includes copy of guideline and informs them that this is the approach that will be taken if they were to present again
Answer	

19	A patient who has been given a triage category of 3 after a head injury does not wait for treatment, he did not inform staff he was leaving. Which of the following best states the issues arising from this.
A	Patient left of own will, no longer EDs responsibility (autonomy trumps duty of care)
B	ED is in breach of its duty of care, should immediately track down patient and ensure they return to ED
C	Is of concern as may not be competent to make decisions, a follow up call on next business day is appropriate
D	
Answer	

Answers

1. C Total ED time = Time of departure - time of arrival
2. D ACEM guidelines and policies
3. C parental right to determine their child's treatment terminates once a child under the age of 16 is capable of fully understanding the medical treatment proposed. However the right of a minor to refuse life saving treatment is not established
(Gillick v West Norfolk AHA (1986), AC 112 (HL) approved by the High Court of Australia in Department of Health and Community Services v JWB and SMB (Marion's case) (1992), 175 CLR 218. See: M. Harrison, What's New in Family Law? Parental Authority and its constraints the Case of 'Marion', FAMILY MATTERS no.32 August 1992, pp.10-12)
4. D Dunn (but Dunn doesn't mention the European car, but it is meant to be a proxy marker for higher socio-economic status)
5. B Dunn, 4th Ed, pg 47
6. D Dunn, 4th Ed, pg 2-3
7. C Dunn A – Far too tempting B – Asking for trouble (though may be true) D – May be appropriate longer term Mx, but not as the response to a complaint E – Vital to document response – final response should be a letter
8. D Dunn A – While partially true, in settings of possible impaired capability duty of care requires ensuring competence to use autonomy B – Also partially true, response however too rigorous for this setting C – Timing of call too late in this setting D – Correct answer
9. C
10. D
11. D
12. C Total ED time = Time of departure - time of arrival
13. D ACEM guidelines and policies
14. C parental right to determine their child's treatment terminates once a child under the age of 16 is capable of fully understanding the medical treatment proposed. However the right of a minor to refuse life saving treatment is not established . (Gillick v West Norfolk AHA (1986), AC 112 (HL) approved by the High Court of Australia in Department of Health and Community Services v JWB and SMB (Marion's case) (1992), 175 CLR 218. See: M. Harrison, What's New in Family Law? Parental Authority and its constraints the Case of 'Marion', FAMILY MATTERS no.32 August 1992, pp.10-12)
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18. C Dunn A – Far too tempting B – Asking for trouble (though may be true) D – May be appropriate longer term Mx, but not as the response to a complaint E – Vital to document response – final response should be a letter
19. D Dunn A – While partially true, in settings of possible impaired capability duty of care requires ensuring competence to use autonomy B – Also partially

Emergency Medical Services and Disaster Medicine

Each question below contains five suggested responses. Select the ONE BEST response to each question.

05-108 Which of the following acts of Congress authorized the U.S. Department of Transportation to fund ambulances, communications, and training programs for prehospital medical services?

- (A) 1966 National Highway Safety Act
- (B) 1973 National Highway Safety Act
- (C) 1966 Public Law 93-154
- (D) 1973 Public Law 93-154
- (E) 1965 EMS Act

[Show Answer](#)

05-109 Which of the following is NOT a component of "off-line" medical control?

- (A) Protocol development
- (B) Quality assurance
- (C) Budget development
- (D) Provider education
- (E) Approval of medical devices used in out-of-hospital care

[Show Answer](#)

05-110 Approximately what percentage of an EMS system's volume deals with children 16 years or younger?

- (A) 0 to 5
- (B) 5 to 10
- (C) 10 to 15
- (D) 15 to 20
- (E) < 2

[Show Answer](#)

05-111 Which of the following is a contraindication to the application of a femoral traction splint?

- (A) Angulated tibia fracture
- (B) Femur fracture
- (C) Pelvic fracture

- (D) Ankle fracture
- (E) Severe head trauma

[Show Answer](#)

05-112 Which of the following statements regarding a two-member crew configuration of a prehospital helicopter is TRUE?

- (A) The crew should consist of individuals with the same level of training so that scope and limitations of practice are clearly understood by each member
- (B) Patient outcome is improved by using crews with a higher level of formal training
- (C) A paramedic-paramedic configuration is the best choice because paramedics are most familiar with the prehospital environment
- (D) A physician crew member is desirable but often impossible because of budget constraints
- (E) Using a physician as one member of the crew has not been shown to improve patient outcome

[Show Answer](#)

05-113 Which of the following is FALSE regarding the use of helicopters in EMS?

- (A) Ideally, the pilot should decide whether it is safe to fly before being told the nature of the mission
- (B) Interfacility transfers are more than twice as frequent as scene responses
- (C) Patients with injuries that could be exacerbated by low barometric pressure (with resultant barotrauma) are poor candidates for helicopter transport
- (D) A helicopter needs a minimum of a 60-ft² landing zone
- (E) Per patient mile, helicopters are safer than ground ambulances

[Show Answer](#)

05-114 You are asked to give a lecture to the paramedics about what they should consider when performing interfacility transfers of neonates to a higher level of care. All of the following mechanisms for conserving body temperature are LESS effective in neonates than in adults EXCEPT

- (A) shunting blood from the skin and periphery to the core
- (B) increasing basal metabolic rate
- (C) voluntary muscle activity
- (D) shivering
- (E) nonshivering thermogenesis

[Show Answer](#)

05-115 During the same lecture described in question 114, what fluid type would you advise the paramedics to use during transport of a neonate with a birth weight greater than 1000 g?

- (A) Normal saline
- (B) Half normal saline

- (C) Lactated ringers
- (D) 5 percent dextrose in water
- (E) 10 percent dextrose in water

[Show Answer](#)

05-116 In preparation for interfacility transport, you decide to prophylactically intubate a critically ill child. Cuffed endotracheal tubes should NOT be used in children younger than which age?

- (A) 15 years
- (B) 10 years
- (C) 7 years
- (D) 5 years
- (E) 3 years

[Show Answer](#)

05-117 Which of the following are phases to a disaster response according to the ACEP classification system?

- (A) Activation
- (B) Triage
- (C) Recovery
- (D) A and C
- (E) All of the above

[Show Answer](#)

05-118 Which of the following is NOT one of the seven key functions of the Incident Command System (ICS)?

- (A) Information officer
- (B) Liaison officer
- (C) Safety officer
- (D) Finance section chief
- (E) Triage officer

[Show Answer](#)

05-119 Which of the following statements is TRUE regarding the National Disaster Medical System (NDMS)?

- (A) It deals strictly with civilian, not wartime, casualties
- (B) It is a partnership between four federal agencies
- (C) It was created in the early 1960s when policy makers realized the United States did not have a hospital bed system that could accommodate mass casualties
- (D) It is an organizational arm of the United States Red Cross

- (E) Patients are triaged to different hospitals under the direction of the state EMS medical director

[Show Answer](#)

05-120 What is the MOST common presenting complaint by patients at a mass gathering?

- (A) Dermal injury
- (B) Musculoskeletal injury
- (C) Headache
- (D) Abdominal pain
- (E) Chest pain

[Show Answer](#)

05-121 Above which gestational age should premature infants generally be aggressively resuscitated?

- (A) 24 weeks
- (B) 25 weeks
- (C) 26 weeks
- (D) 27 weeks
- (E) 28 weeks

[Show Answer](#)

05-122 Which of the following is TRUE regarding out-of-hospital cardiac arrest?

- (A) The annual incidence of out-of-hospital cardiac arrest is about 1 per 100,000 in the United States
- (B) Sudden cardiac death is the number one cause of out-of-hospital death in the United States
- (C) Ventricular tachycardia is a positive predictor for survival of out-of-hospital cardiac arrest
- (D) Cardiac arrest makes up approximately 20 percent of an urban EMS system's call volume
- (E) Prehospital thrombolytic therapy after successful return of spontaneous circulation in a patient with ECG changes consistent with myocardial infarction improves patient outcome

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(108) The answer is A

The 1966 National Highway Safety Act authorized the U.S. Department of Transportation to fund ambulances, communications, and training programs for prehospital medical services. In 1973, Public Law 93-154 was passed with the goal to improve emergency care and EMS on a national scale. This law identified 15 essential elements of an EMS system: (1) personnel, (2) training, (3) communications, (4) transportation, (5) facilities, (6) critical care units, (7) public safety agencies, (8) consumer participation, (9) access to care, (10) standardization of patients' records, (12) public information and education, (13) independent review and evaluation, (14) disaster linkage, and (15) mutual aid agreements.

(Chapter 1)

(109) The answer is C

The medical director is responsible for off-line (indirect) medical control. The major components of off-line medical control are (1) development of protocols for drugs and devices, (2) development of medical accountability (quality assurance), and (3) development of ongoing education. Budget development may be an administrative task of the service medical director, but it is not considered an off-line *medical* control component.

(Chapter 1)

(110) The answer is B

It is estimated that 5 to 10 percent of a system's volume consists of pediatric patients. The most common pediatric emergencies are trauma, respiratory emergencies, and seizures. Cardiac arrest in children is rare (approximately 1 per 10,000 children per year in the United States).

(Chapter 4)

(111) The answer is C

The femoral traction splint is the preferred device for immobilization of femur fractures. Traction is applied by using a hitch on the ankle that encounters resistance when the splint impinges proximally on the pelvis. These splints cannot be used if a pelvic fracture is suspected because pressure on the pelvis may further displace the fracture and increase bleeding. A hip dislocation is another contraindication to using a femoral traction splint.

(Chapter 2)

(112) The answer is E

Multiple configurations are possible for a helicopter medical crew. The most frequently used pairing is a nurse with a paramedic because of their complementary clinical skills. The literature does not support the belief that the addition of a physician to the crew leads to better patient outcomes.

(Chapter 3)

(113) The answer is C

Because helicopters generally transport patients at altitudes less than 3500 ft, low barometric pressure with barotrauma is usually not a factor. Mission patterns differ widely among flight programs, with the national average in 1997 for scene and interfacility flights being 30 and 70 percent, respectively. Although EMS helicopters have a crash rate exceeding that of non-EMS helicopters, it is probably true that, per patient mile, EMS helicopters are safer than ground ambulances. Pilots should assess the weather and other safety hazards independent of the nature of the mission so that they are not pressured to risk unsafe flights out of concern for the patient's condition.

(Chapter 3)

(114) The answer is E

Mechanisms for conserving body temperature include (1) shunting blood from the skin and periphery to the core, (2) increasing basal metabolic rate, (3) voluntary muscle activity, (4) shivering, and (5) nonshivering thermogenesis. Neonates have limited ability to maintain normal body temperature and should be transported in a "neutral thermal environment." Of the mechanisms listed, nonshivering thermogenesis is the only one that is as effective in neonates as in adults.

(Chapter 4)

(115) The answer is E

Because of the risk of hypoglycemia, all neonates should receive glucose-containing fluids in preparation for and during transport. Ten percent dextrose should be used in infants with a birth weight greater than 1000 g. Five percent glucose is safer in smaller infants because of the risk of hyperglycemia with the more concentrated solution.

(Chapter 4)

(116) The answer is C

Because the narrowest anatomic portion of the airway is below the cords in children younger than 7 years, cuffed endotracheal tubes should not be used in this population. In addition, the distance between the thoracic inlet and carina is extremely short in small children, so care must be taken to avoid a right mainstem intubation. (Chapter 4)

(117) The answer is D

The American College of Emergency Physicians (ACEP) describes three phases of a disaster response: activation, implementation, and recovery. The first phase, the "activation phase," has two components: notification and initial response, and establishment of an incident command post. The second phase is the "implementation phase" and consists of three components: search and rescue, triage with stabilization and transport, and definitive scene management. The third and final stage is the "recovery phase." *Recovery* refers to withdrawal from the scene and return to normal operations. (Chapter 5)

(118) The answer is E

The ICS is a nationally accepted management structure used to organize a disaster response. It was first used to respond to a series of wildfires in Southern California in 1970. There are seven key functions that the incident commander must manage. The typical organization of the seven functions is an information officer, liaison officer, and safety officer, all attached to the incident commander, plus four section chiefs for finance, logistics, operations, and planning. The triage officer would be located in a subfunction rather than in one of the seven top areas. ICS has the flexibility to expand or contract depending on the nature and magnitude of the disaster. (Chapter 5)

(119) The answer is B

The NDMS is a partnership between four federal agencies: the Department of Health and Human Services, Department of Defense, Federal Emergency Management Agency, and Veterans Administration. It was established in 1984 to address the need for a national system to provide hospital beds in the event of mass casualties resulting from war or a civilian disaster. The NDMS links the federal government with state and local agencies and private sector hospitals to address health and medical care needs after a catastrophic disaster. Part of its medical response component consists of disaster medical assistance teams comprised of civilian volunteers.

(Chapter 5)

(120) The answer is A

Mass gatherings present unique challenges to emergency responders. Large numbers of people are located at a single site, making treatment and transportation difficult. The most common presenting complaint at mass gatherings is dermal injury, followed by headache, musculoskeletal complaints, and gastrointestinal complaints.

(Chapter 6)

(121) The answer is A

Although the legal age of viability differs by state, an infant born at a gestational age of less than 24 weeks, weighing less than 500 g, and who has gelatinous skin and fused eyes is generally not viable. By contrast, infants born after 24 weeks of gestation are likely to have a relatively good outcome and should be aggressively resuscitated.

(Chapter 4)

(122) The answer is B

Sudden cardiac death is the number one cause of out-of-hospital death in the United States. The annual incidence of out-of-hospital cardiac arrest is 1 per 1000. Ventricular fibrillation, not tachycardia, is a positive predictor for survival of cardiac arrest. Cardiac arrest comprises about 5 percent of the volume of calls in an EMS system. Studies of field administration of thrombolytic agents by paramedics have shown that it is feasible but does not improve outcome. However, equipping ambulances with 12-lead ECGs can decrease the time to ED treatment of thrombolytic candidates.

(Chapter 1)

Administration, Ethics, and Legal Aspects

Each question below contains five suggested responses. Select the ONE BEST response to each question.

01-1 All of the following are elements of a hospital's disaster plan EXCEPT

- (A) activation mechanism
- (B) capacity assessment
- (C) communication
- (D) discharge of predisaster patients
- (E) training and drills

[Show Answer](#)

01-2 All of the following are helpful strategies to cope with shift work EXCEPT

- (A) counterclockwise shift rotation
- (B) isolated night shifts
- (C) bright light (>10,000 lux) for 2 h after rising
- (D) regular exercise
- (E) anchor sleep and naps

[Show Answer](#)

01-3 All of the following statements are true of sexual assault EXCEPT

- (A) The physician's first responsibility is to the patient, not to the legal system
- (B) All patients should be offered follow-up
- (C) Lack of genital injuries makes involuntary intercourse unlikely
- (D) Facial or extremity injuries are common
- (E) Every female patient should have a pregnancy test

[Show Answer](#)

01-4 Each of the following is an ethical justification to terminate or withhold cardiopulmonary resuscitation EXCEPT

- (A) preexisting poor quality of life
- (B) a valid do-not-resuscitate order
- (C) known irreversible and untreatable terminal illness
- (D) nonsurvivable trauma, such as decapitation
- (E) failure to respond to standard protocols according to advanced cardiac life support

[Show Answer](#)

01-5 Each of the following is an expected physician response to a malpractice suit EXCEPT

- (A) disbelief
- (B) anger
- (C) depression
- (D) threats against the suing patient
- (E) self-doubt and difficulty making decisions

[Show Answer](#)

01-6 In a case of suspected child abuse, which of the following statements is TRUE?

- (A) A physician must report evidence of abuse but is not required to report mere suspicions
- (B) Physicians are required to report any clear evidence of abuse but can be successfully sued for incorrect reports
- (C) Physicians are at great legal risk when they report suspected abuse cases that turn out to be unfounded
- (D) Physicians in all states are required by law to report any suspected abuse, and complete legal immunity is provided in every state
- (E) The physician should take custody of the child

[Show Answer](#)

01-7 A 14-month-old male infant is brought to the ED for evaluation of diarrhea. The child has an area of alopecia over the occiput. Ribs are prominent and the skin is loose, but muscle tone is increased. The child weighs only 11 pounds. What is the BEST course of action?

- (A) Urgent outpatient referral to an endocrinologist
- (B) Admission, skeletal survey, and social service evaluation
- (C) Elimination diet for evaluation of food allergies
- (D) Stool culture and test for fecal leukocytes
- (E) Evaluation by a pediatric neurologist for muscular dystrophy

[Show Answer](#)

01-8 A 28-year-old woman presents at 2:00 a.m. with a leg laceration that she sustained the previous afternoon. She states she struck a coffee table. Examination shows a healing periorbital contusion and several other ecchymoses of various ages. When questioned, she relates these to falls sustained while pursuing her active 2-year-old son. A nurse recalls this patient as a "frequent flyer" who often receives opiates to treat pain. Review of the records shows a series of visits for various injuries, including a facial laceration, a wrist fracture, and back strains and contusions. What is the MOST appropriate course of action?

- (A) Repair the laceration and provide nonopioid analgesics
- (B) Confront the patient about her excessive use of prescription drugs and offer a referral to substance abuse counseling
- (C) Question the patient about her use of alcohol and administer a standardized diagnostic questionnaire such as CAGE

- (D) Question the patient about domestic violence and offer referral to a shelter and support services
- (E) Report the case to child protective services

[Show Answer](#)

01-9 With regard to the patient discussed in question 8, goals of the ED encounter include all of the following EXCEPT

- (A) providing the patient with information about risks and options
- (B) having the spouse arrested
- (C) assessing risk of suicide or homicide
- (D) assessing safety of the patient and children
- (E) offering referral to battered women's shelters and services

[Show Answer](#)

01-10 Each of the following is an appropriate question to ask in a case of suspected domestic violence EXCEPT

- (A) Are you in a relationship in which you have been physically hurt or threatened by your partner?
- (B) What do you do that makes your partner hit you?
- (C) Has your partner ever threatened or abused your children?
- (D) Has your partner ever forced you to have sex when you did not want to?
- (E) What happens when you and your partner fight or disagree?

[Show Answer](#)

01-11 Each of the following is a risk factor for violent behavior in the ED EXCEPT

- (A) male sex
- (B) previous violent behavior
- (C) depression
- (D) alcohol abuse
- (E) paranoid schizophrenia

[Show Answer](#)

01-12 The Emergency Medical Treatment and Active Labor Act (EMTALA) has many provisions that affect emergency care in U.S. EDs. All of the following provisions are true of EMTALA EXCEPT

- (A) A patient in active labor is not considered "stabilized" until the baby and placenta are delivered
- (B) If capacity exists, a hospital with a "special service" (such as a burn center) is required to accept transfers, regardless of the patient's financial status
- (C) A patient may never be transferred for purely financial reasons
- (D) A hospital must provide a medical screening examination to anyone who presents requesting care

(E) Fines under EMTALA are not covered by traditional malpractice insurance

[Show Answer](#)

01-13 All of the following are appropriate actions to preserve evidence in cases of penetrating trauma EXCEPT

- (A) picking up bullet and metal fragments with a metal instrument to avoid contaminating the surface with glove residue or skin oils
- (B) not incising through skin wounds whenever possible
- (C) when cutting clothing, cut around rather than through bullet holes and knife holes
- (D) not scrubbing wounds
- (E) collecting and preserving clothing and belongings and storing them in a secure area

[Show Answer](#)

01-14 Each of the following is a true statement about the use of restraints in the ED EXCEPT

- (A) The law requires that the minimal force necessary be used when restraining a patient
- (B) As few people as possible should participate in restraining the patient
- (C) From a legal standpoint, restraining patients against their will is generally better than allowing patients to harm themselves or others
- (D) The medical chart must reflect the reason for placing the patient in restraints
- (E) Patients who require restraints should not be allowed to sign out against medical advice

[Show Answer](#)

01-15 All of the following are ethical duties of a physician EXCEPT

- (A) protect and preserve life
- (B) prevent disability
- (C) relieve suffering
- (D) respect patient autonomy
- (E) provide treatment that is in society's best interest

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[Show All Answers](#)

(1) The answer is D

A good hospital disaster plan includes a mechanism of activation, assessment of the hospital's capacity, establishment of disaster command, communication, supplies, administrative and treatment areas, and training and drills. Although immediate discharge of predisaster patients may augment capacity, it is not contemplated in the regulations of the Joint Commission of the Accreditation of Healthcare Organizations. Good disaster planning also includes assessment of likely hazards and cooperation between the hospital and the community. (Chapter 5)

(2) The answer is A

When shifts must be rotated, they should be rotated in a clockwise manner (each change to a later, not earlier, shift), ideally with 1 month or more per rotation. Sporadic night shifts are less disruptive than longer stretches of nights to circadian rhythms. Anchor sleep involves sleeping for the same 4-h period each night, regardless of the shift worked.

(Chapter 288)

(3) The answer is C

Lack of genital injuries does not imply consensual intercourse, although their presence may suggest force. Toluene dye staining with culposcopy may identify lesions in the posterior fourchette suggestive of rape that are not visible on routine examination. Because rape is a violent crime, nongenital injuries are common, particularly of the face and extremities. Preexisting pregnancy must be ruled out before offering pregnancy prophylaxis. Follow-up is necessary to assess the effectiveness of pregnancy and sexually transmitted disease prophylaxis, and patients frequently require additional counseling.

(Chapter 290)

(4) The answer is A

Judgments about quality of life are highly subjective and individual, and physicians should refrain from making such judgments about their patients. When a patient is known to have an untreatable terminal illness, it is appropriate to withhold resuscitation, but this level of knowledge is rarely available in the emergency setting. Often, only the failure to respond to resuscitation efforts will determine that the patient has "irreversible cessation of circulatory and respiratory functions."

(Chapter 13)

(5) The answer is D

Malpractice stress syndrome is a pattern of response characterized by disbelief, anger, and depression, followed by isolation, embarrassment, and self-doubt. The greatest predictor of dysfunction is isolation. Peer support groups composed of other physicians who have experienced litigation are very helpful in preventing or relieving the sense of isolation.

(Chapter 288)

(6) The answer is D

Physicians and other licensed health care professionals are required to report any suspicion of child abuse. Every state provides complete legal immunity for any good-faith report of suspected abuse. Although parents are frequently angry and upset and may threaten lawsuits, a physician cannot be successfully sued for reporting child abuse unless the report is intentionally false.

(Chapter 289)

(7) The answer is B

Failure-to-thrive syndrome results from severe neglect starting in early infancy. Physical examination shows evidence of longstanding malnutrition, and the child often exhibits wide-eyed, wary behavior. Muscle tone is usually increased, but is occasionally decreased. Admission to the hospital generally results in prompt weight gain, which is diagnostic. A skeletal survey is needed to evaluate for physical abuse, and an extensive social service assessment is mandatory.

(Chapter 289)

(8) The answer is D

Battered women seek care for a wide variety of complaints. The most significant reason for failing to make the diagnosis is simple failure to ask. However, only about one-third of battered women will speak to a physician or nurse about the violence in their lives if direct inquiry is made. Therefore, the diagnosis is not ruled out by a negative answer. Although battered women may resort to substance abuse, there is no established link between substance use and the cause of violence. Multiple injuries in various stages of healing, substantial delay between injury and presentation, and frequent visits for vague complaints are factors suggestive of a diagnosis of domestic violence.

(Chapter 291)

(9) The answer is B

When physicians have "getting her to a shelter" or "having him arrested" as the goal of the patient encounter in cases of domestic violence, they are rarely successful. Women stay in violent relationships for a variety of reasons, including the very real fear of escalating violence. The highest number of fatalities from domestic violence occur when the woman leaves or tries to leave the relationship. Leaving the relationship may not be the immediate goal of the patient, and she may be loathe to have her husband and the father of her children arrested.

(Chapter 291)

(10) The answer is B

The presentations of battered women are so different that the diagnosis may be missed if the physician fails to ask directly about the presence of violence in the patient's life. Many battered women respond truthfully if questioned directly in a sensitive, nonjudgmental way. However, the woman needs to know that she does not deserve to be beaten. Questions that suggest or imply that the battering is the patient's fault must be avoided.

(Chapter 291)

(11) The answer is C

Most perpetrators of violence are males with a history of substance abuse. The best predictor of potential violence is the patient's history; any patient with a history of violence must be taken seriously and handled cautiously. The most common functional disorder related to violence is schizophrenia, especially the paranoid subtypes. Although the most dangerous functional disorder is mania, depression is not a strong predictor of violence.

(Chapter 293)

(12) The answer is C

Under EMTALA (also known as COBRA), every patient who presents with a request for medical care must receive a "medical screening examination" to rule out a medical emergency. If a medical emergency is present, the patient must be stabilized without regard for the financial status of the patient. A patient in active labor is defined as having an emergency under EMTALA and can only be stabilized by delivery of the infant and the placenta. Fines under EMTALA are not covered by malpractice insurance. Once a patient is "stable," EMTALA no longer applies, and the patient may be transferred for purely financial reasons. However, the burden of proving stability is with the transferring physician and hospital.

(Chapter 3)

(13) The answer is A

Bullets should not be handled with metal instruments because the instrument may leave marks that can confuse interpretation. Cutting through holes in clothing or through skin wounds can destroy valuable indications of the force, direction, and nature of the wounding instrument. Scrubbing wounds can destroy powder marks from gunshots and obscure abrasions. Clothing and belongings must be secured to prevent the possibility of tampering.

(Chapter 256)

(14) The answer is B

Each person who requires restraint should be approached by a team of four or five trained individuals with a single leader. Ideally, one person can control each extremity and another can control the head. Inadequate numbers of personnel lead to increased injuries to both the staff and the patient. The minimum necessary force should be used, and not every patient requires four-point leather restraint. Patients who require restraint should not leave the ED without complete evaluation. The chart must reflect the reason for the restraints and a specific physician order for the type and duration of restraint. The patient must be reevaluated frequently.

(Chapter 293)

(15) The answer is E

Although there has been increasing attention to physicians' role in promoting greater social good and preserving resources, the physician is expected to be an advocate for the patient first and provide treatment that is in that patient's best interest. It is in resuscitation that the duties to protect and preserve life most often conflict with the duties to relieve suffering and respect autonomy. Patient autonomy is a highly prized ideal in U.S. society.

(Chapter 13)

