

Appendix 2

MULTIPLE CHOICE QUESTIONNAIRE

(Pre and Post test)

1. In case of continuing seizures in newborn even after loading with full dose of Phenobarbitone 40 mg/kg in absence of ventilation facility you should give
 - a. Lorazepam
 - b. Phenytoin
 - c. Diazepam
 - d. Magnesium sulphate
2. In case of seizures due to hypoglycemia in a newborn treat with loading dose of the following
 - a. 2 ml/Kg of 50% dextrose
 - b. 2 ml/Kg of 10% Dextrose
 - c. 5 ml/kg of 10% Dextrose
 - d. 5 ml/Kg of 50% dextrose
3. Phenytoin is administered intravenously after dilution with
 - a. Normal saline
 - b. Dextrose solution
 - c. Either normal saline or dextrose solution
 - d. Does not need dilution
4. All statements about seizures are correct when compared to jitteriness **EXCEPT**
 - a. Often associated with autonomic changes
 - b. Fast movements of equal amplitude
 - c. Have both fast and slow components
 - d. Does not stop with restraint
5. IV calcium gluconate can cause the following except
 - a. Tachycardia
 - b. Sloughing of skin if extravasation
 - c. Bradycardia
 - d. None of the above
6. After initial control with Phenobarbitone alone if no recurrence of seizures in next 72 hours then the right approach is

- a. Stop Phenobarbitone after tapering the dose
 - b. Stop Phenobarbitone and start Phenytoin
 - c. Start tapering of Phenobarbitone and start Phenytoin
 - d. Stop Phenobarbitone without tapering of dose

7. Meningitis is confirmed if CSF contains
 - a. WBC of 10/mm³ in less than seven days old
 - b. WBC of 10/mm³ in more than seven days old
 - c. WBC of 15/mm³ in less than seven days old
 - d. None of the above

8. In case of shock in newborn and if bleeding is not the likely cause then do the following EXCEPT
 - a. Establish IV access
 - b. Give IV normal saline or ringer lactate 10 ml/Kg over 10 minutes
 - c. Give IV normal saline or ringer lactate 20 ml/Kg over 60 minutes
 - d. Give 10% Dextrose at maintenance rate

9. If a term baby develops feeble pulse at birth then think of the following EXCEPT
 - a. Antepartum hemorrhage
 - b. Severe asphyxia
 - c. Duct dependent cardiac lesion
 - d. None of the above

10. You monitor a baby with shock with the following parameters EXCEPT
 - a. Urine output
 - b. Sensorium
 - c. Capillary refill time
 - d. Pupillary reaction

11. In case of presumed neonatal sepsis without abdominal distension do the following
 - a. Keep NPO for at least 3 days
 - b. Introduce feeding as soon as possible
 - c. Keep NPO till full course of antibiotics is given
 - d. Keep NPO till culture report is available

12. In a 3 week old term baby with fever, most specific sign suggestive of meningitis is
 - a. Prolonged CRT
 - b. Pulsatile anterior fontanel
 - c. Convulsions
 - d. Heart rate < 100/min

13. All are possible causes of seizures on day 1 of life **EXCEPT**
- Hypoglycemia
 - Tetanus
 - Asphyxia
 - Intraventricular bleeding
14. All are features of shock **EXCEPT**
- Heart rate < 180/min
 - Capillary refill time > 3 sec
 - Extremities cold to touch
 - Weak thready pulse
15. Moderate Hypothermia in a neonate is defined as an axillary temperature
- < 34 degree C
 - < 32 degree C
 - 36-36.4 degree C
 - 32-35.9 degree C
16. The recommended room temperature for maintaining warmth for neonates is
- 28 degree C
 - 34 degree C
 - 25-28 degree C
 - 25 degree C
17. Prevention of hypothermia in the community should focus on
- Kangaroo mother care
 - Keeping the room warm (25-28 degree C)
 - Ensure adequate breastfeeding
 - All of the above
18. Which of the following suggests the best method for disinfection of spoon and paladai:
- Cleaned with soap and water
 - Boil for 20 min
 - Clean with soap and water followed by boiling for 20 min
 - Autoclaving
19. 1.2 kg male neonate, on day 4 of life is able to swallow without coughing/spluttering, neonate can be fed by all of the following methods **EXCEPT**
- Orogastric / nasogastric feeds
 - Cup
 - Spoon
 - Paladai

20. 1.15 kg VLBW neonate, 32 weeks IUGR neonate on iv fluids for respiratory distress. The neonate is planned to be started on MEN, the volume to be started is
- 5-10 ml/kg/day
 - 10-15ml/kg/day
 - 15-20ml/kg/day
 - 5-7ml/kg/day
21. A 2 kg neonate, on day 6 of life is taking 100ml/kg/day of feeds out of daily requirement of 150 ml/kg / day of daily fluids required. Next step is to
- Stop iv fluids
 - Taper and stop iv fluids
 - Taper iv fluids
 - None of the above
22. Signs of feed intolerance are all EXCEPT
- Gastric residues > 25 % of previous feed
 - Abdominal distension
 - Hemodynamic instability
 - Vomiting soon after feeds
23. A term newborn 2560 grams is admitted at 4 hours with heart rate 200/ minute, cold extremities, capillary fill time of 4 seconds. The resident shifts the baby inside the neonatal intensive care unit and starts oxygen and other resuscitative measures. On asking the history from the relatives, the resident realises that the neonate was born by LSCS done for placenta previa and the mother had come with severe bleeding per vaginum to the hospital and the baby referred after birth to the NICU. Which is the most appropriate **NEXT STEP** for management?
- Give IV normal saline 10 mL/kg over 60 minutes
 - Give IV normal saline/ ringer lactate 10 mL/kg over 10 minutes
 - Arrange blood 10mL/kg and transfuse over 30 minutes
 - Immediately give 20 mL/kg O negative packed RBC over 30 minutes.
24. Lumbar puncture is indicated in seizure if:
- Clinically symptomatic infant e.g. lethargy, unconsciousness
 - Bulging anterior fontanelle.
 - Culture positive sepsis with seizure
 - All of the above
25. The two important parameters which help in ascertainment of the type of initial feeding include:
- Weight and gestation

- b. Gestation and hemodynamic stability
- c. Clinical stability and weight
- d. Absence of tachypnea and birth asphyxia

Answers

1. B
2. B
3. A
4. B
5. A
6. D
7. B
8. C
9. C
10. D
11. A
12. C
13. B
14. A
15. D
16. C
17. D
18. C
19. A
20. B
21. A
22. C
23. B
24. D
25. C

OSCE 1

A neonate was born at 40 weeks with meconium stained liquor. Neonate required intubation and suctioning of meconium at birth. Neonate remained tachypneic since birth. However neonate is gradually deteriorating and now at 48 hours neonate is having weak and fast pulses with cold extremities.

Demonstrate the steps in management.

Preparation

- Hand rub
- Clothes
- Gloves
- Glucometer
- IV catheter
- Betadine and spirit swabs
- Normal Saline
- Antibiotics
- Watch
- Mannequin
- Stethoscope
- Digital thermometer
- Oxygen source

Answer 1

	Done	Not Done
1. Washes hands	<input type="checkbox"/>	<input type="checkbox"/>
2. Examines the baby		
• Heart rate	<input type="checkbox"/>	<input type="checkbox"/>
• Oxygen Saturation	<input type="checkbox"/>	<input type="checkbox"/>
• Capillary Refill	<input type="checkbox"/>	<input type="checkbox"/>
• Urine Output	<input type="checkbox"/>	<input type="checkbox"/>
• Observes sensorium	<input type="checkbox"/>	<input type="checkbox"/>
• Measures temperature	<input type="checkbox"/>	<input type="checkbox"/>
• Respiratory rate	<input type="checkbox"/>	<input type="checkbox"/>

Prompt: heart rate is 190/ minute, saturation 84% on room air, drowsy, not passed urine for last six hours, temperature is 36.0 degree celcius, and respiratory rate is 70 / minute

3. Provides warmth	<input type="checkbox"/>	<input type="checkbox"/>
4. Secure airway	<input type="checkbox"/>	<input type="checkbox"/>
5. Starts oxygen	<input type="checkbox"/>	<input type="checkbox"/>
6. Checks blood sugar	<input type="checkbox"/>	<input type="checkbox"/>
<i>Prompt: Blood sugar is 56 mg%</i>		
7. Establishes IV access	<input type="checkbox"/>	<input type="checkbox"/>
8. Gives normal saline bolus 20 ml/kg over one hour	<input type="checkbox"/>	<input type="checkbox"/>
9. Says treat for sepsis	<input type="checkbox"/>	<input type="checkbox"/>

Allotted marks (Maximum Marks 15)

OSCE 2

1.2 kg baby on day 1 of life is not able to accept feeds by cup/spoon. Answer the following questions.

Demonstrate the procedure.

Preparation

- Soap and water
- Orogastric tubes
- Gloves
- Syringes 10 mL, 20 mL, 5 mL
- Normal Saline
- Milk
- Mannequin
- Water

Answer 2

	Done	Not Done
1. Washes hands	<input type="checkbox"/>	<input type="checkbox"/>
2. Speaks that will initiate intragastric feeds	<input type="checkbox"/>	<input type="checkbox"/>
3. Checks the position of the tube	<input type="checkbox"/>	<input type="checkbox"/>
4. Take a fresh syringe (ideally sterile disposable) and remove the plunger	<input type="checkbox"/>	<input type="checkbox"/>
5. Connects the barrel of the syringe to the end of the gastric tube	<input type="checkbox"/>	<input type="checkbox"/>
6. Pinch the tube and fill the barrel of the syringe with the required volume of milk	<input type="checkbox"/>	<input type="checkbox"/>
7. Holds the tube with one hand, releases the pinch	<input type="checkbox"/>	<input type="checkbox"/>
8. Elevates the syringe barrel to 5-10 cm above the level of the baby	<input type="checkbox"/>	<input type="checkbox"/>
9. Lets the milk run from the syringe through the gastric tube by gravity	<input type="checkbox"/>	<input type="checkbox"/>
10. Does not force milk through the gastric tube by using the plunger of the syringe	<input type="checkbox"/>	<input type="checkbox"/>
11. Observes the infant during the entire gastric tube feed.	<input type="checkbox"/>	<input type="checkbox"/>
12. Watches for breathing difficulty, change in colour, or infant becoming floppy and vomits	<input type="checkbox"/>	<input type="checkbox"/>
13. Keeps the end of the gastric tube between feeds capped.	<input type="checkbox"/>	<input type="checkbox"/>
14. Avoids flushing the tube with water or saline after giving feeds.	<input type="checkbox"/>	<input type="checkbox"/>
15. Replace the gastric tube with another clean gastric tube after three days, or earlier in case it is pulled out or becomes blocked.	<input type="checkbox"/>	<input type="checkbox"/>

Allotted marks (Maximum Marks 15)

OSCE 3

A 35 weeks 1800 grams neonate is found to have cold extremities on routine morning rounds by the resident on duty. The resident records the temperature and notices it to be 35.9 degree celcius.

Answer the following questions

Demonstrate the steps in measurement of axillary temperature.

Preparation

- Soap and water
- Clothed mannequin
- Spirit swabs
- Sterile container
- Patient sheet
- Glucometer
- Digital thermometer

Answer 3

	Done	Not Done
1. Expose the auxiliary region of the infant.	<input type="checkbox"/>	<input type="checkbox"/>
2. Ensure the baby is kept warm throughout the procedure.	<input type="checkbox"/>	<input type="checkbox"/>
3. Take the thermometer from its container clean it by using a spirit swab from the bulb end.	<input type="checkbox"/>	<input type="checkbox"/>
4. Shake it by holding the others end note the reading. It should be $<35^{\circ}\text{C}$.	<input type="checkbox"/>	<input type="checkbox"/>
5. Place the bulb end under the baby's arm in the middle of the arm near the groove of the axilla.	<input type="checkbox"/>	<input type="checkbox"/>
6. Gently hold the baby's arm against the body and keep the thermometer in place for 3 minutes.	<input type="checkbox"/>	<input type="checkbox"/>
7. Remove the thermometer and record the temperature.	<input type="checkbox"/>	<input type="checkbox"/>
8. Clean the thermometer with spirit swab and keep it in a sterile container for next use. Document the temperature in the baby's case notes.	<input type="checkbox"/>	<input type="checkbox"/>
9. One should not add 0.5 or 1°C to the measured temperature.	<input type="checkbox"/>	<input type="checkbox"/>
<i>Prompt: temperature is 36.0 degree celcius.</i>		
10. Provide warmth using a warmer (or electric bulb)	<input type="checkbox"/>	<input type="checkbox"/>
11. If no warmer is available, start skin to skin with mother (KMC). Cover mother and baby together optimally using pre-warmed clothes	<input type="checkbox"/>	<input type="checkbox"/>
12. Ensure room is warm (maintain at $25^{\circ}\text{C} - 28^{\circ}\text{C}$)	<input type="checkbox"/>	<input type="checkbox"/>
13. Continue breast feeding	<input type="checkbox"/>	<input type="checkbox"/>
14. Measure blood glucose, If $<45\text{mg/dl}$, treat for hypoglycemia (See STP for Hypoglycemia)	<input type="checkbox"/>	<input type="checkbox"/>
15. Reassess every 15 minute; if temperature does not improve, increase setting of warmer. If no improvement or no warmer ,REFER	<input type="checkbox"/>	<input type="checkbox"/>
Allotted marks (Maximum Marks 15)		

OSCE 4

A 35 weeks 1700 grams neonate cannot breast feed adequately. You have to advice the mother regarding the technique to express breast milk.

Answer the following questions

Demonstrate the steps in expression of breast milk.

Preparation

- Wide mouthed container
- Soap and water
- Breast model
- Boiling utensil

Answer 4

- | | Done | Not done |
|---|--------------------------|--------------------------|
| 1. Collects all the needful equipment
(Clean wide mouthed container) | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Washes hands with soap and water. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Puts the container in boiling water and leave it there for at least 5 minutes. | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Hold the container under the nipple and the areola and gently massage the breast. | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Place the thumb on the top of the breast away from the nipple and rest fingers on the underside of the breast opposite to the thumb. | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Push straight into the chest wall. Roll thumb and fingers forward at the same time. This rolling motion compresses and empties milk reservoirs without injuring sensitive breast tissue. | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Compress and release the breast tissue between the thumb and the fingers for a few times. | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Compress and release all the way around the breast keeping the fingers at the same distance from the nipples. | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. Stop expressing when the milk no longer flows or drips from the breast. | <input type="checkbox"/> | <input type="checkbox"/> |
| <i>Prompt: For how long can the milk be kept at room temperature</i> | | |
| 10. Expressed breast milk can be stored at room temperature for 6 hours | <input type="checkbox"/> | <input type="checkbox"/> |

Allotted marks (Maximum Marks 15)

OSCE 5

You have been instructed by the resident incharge to administer Inj. Phenobarbitone to a 2500 grams neonate who presents with seizure at 2 hours of life following a difficult delivery. The dose recommended is 50mg diluted to be given as infusion.

Delineate the important steps in the preparation of the medication?

Preparation

- Syringes
- Cotton swabs with betadine and spirit
- Needle 24G and 26 G
- Infusion pump
- Chart patient monitoring
- Phenobarbitone injection

Answer 5

	Done	Not done
Collects the equipment		
1. Disposable or sterile glass syringe	<input type="checkbox"/>	<input type="checkbox"/>
2. Cotton swabs	<input type="checkbox"/>	<input type="checkbox"/>
3. Alcohol/spirit	<input type="checkbox"/>	<input type="checkbox"/>
4. Needle 24G or 26G	<input type="checkbox"/>	<input type="checkbox"/>
5. Injection comes as a preparation of 200mg/mL in 1 mL ampoules.	<input type="checkbox"/>	<input type="checkbox"/>
6. Take 0.1 mL of the solution and dilute it with 0.9mL of saline. The resultant concentration is 20mg/mL.	<input type="checkbox"/>	<input type="checkbox"/>
7. Calculate the required amount (2.5mL) of the above solution; dissolve in normal saline sufficient to make the total volume 15 -20 mL	<input type="checkbox"/>	<input type="checkbox"/>
8. Label and connect a fresh needle to the syringe.	<input type="checkbox"/>	<input type="checkbox"/>
9. Connect the syringe to an infusion pump.	<input type="checkbox"/>	<input type="checkbox"/>
10. Check for six rights: patient, drug, dose, time, route, documentation.	<input type="checkbox"/>	<input type="checkbox"/>
11. Read the label once again to confirm the medication.	<input type="checkbox"/>	<input type="checkbox"/>
12. Sets the time on infusion pump.	<input type="checkbox"/>	<input type="checkbox"/>
13. It is to be given over 15-29 minutes.	<input type="checkbox"/>	<input type="checkbox"/>
14. Clean the port with spirit, betadine, spirit.	<input type="checkbox"/>	<input type="checkbox"/>
15. Documents in the chart with time and dose.	<input type="checkbox"/>	<input type="checkbox"/>

Allotted marks (Maximum Marks 15)