Neonatal Intensive Care Unit Competency Exam

Please circle all correct answers that apply to the questions below.

26. Which of the following is a reliable reference for neonatal medications?
   a. PDR
   b. NeoFax
   c. Nurse’s Drug Handbook

27. Baby Sam is born at 28 weeks gestational age and requires treatment with acyclovir. Which of the following is true of acyclovir treatment for Baby Sam?
   a. Oral, topical and parenteral absorption of acyclovir will be equivalent to attain therapeutic levels
   b. Acyclovir is excreted unchanged in the urine
   c. Acyclovir dosage is dependent on the infant’s serum protein levels

28. Baby Jane has been diagnosed with supraventricular tachycardia. The doctor has ordered adenosine 0.1 mg/kg to be given by rapid push over 1-2 seconds. Which of the following is true?
   a. Preparing a 1:10 dilution will improve accuracy of measurement (diluting 1 ml of drug with 9 ml of saline makes a 1:10 dilution)
   b. Medication should be double-checked with a colleague to ensure accuracy
   c. Administer as close to the infant’s IV site as possible and follow drug with normal saline to ensure that the full dose reaches the circulation
   d. All of the above

29. Baby Jane has been diagnosed with pulmonary atresia. Initial treatment will include use of oxygen, bicarbonate to treat metabolic acidosis and PGE1. The PGE 1 will do which of the following?
   a. Close the patent ductus in order to prevent any left-to-right shunting
   b. Maintain patency of the ductus arteriosus by relaxing its smooth muscle
   c. Maximize the efficacy of bicarbonate

30. The infant under your care is receiving amphotericin B. What type of infection is being treated?
   a. Bacterial
   b. Fungal
   c. Viral
31. The infant has an initial order for amphotericin B 0.25 mg/kg IV to infuse over 6 hours. Is this order correct?
   a. Correct
   b. Incorrect

32. A 2 kg, 34 week gestational age infant is admitted to the NICU with respiratory distress. The mother is GBS positive and her membranes have been ruptured for 3 days before admission to the hospital. The mother received antibiotics after the infant was delivered. The infant was started on ampicillin. Which statement is true regarding ampicillin?
   a. Ampicillin is an aminoglycoside that has both Gram-negative and Gram-positive effects
   b. 25 mg/kg/day would be an acceptable dosing regimen for this infant with suspected GBS
   c. Ampicillin and gentamicin should not be mixed in the same IV tubing

33. The infant is started on ampicillin 100 mg/kg/day. The order states to give ampicillin every 6 hrs IV. This order is:
   a. Correct
   b. Incorrect

34. Baby Ben is born at 37 weeks gestational age weighing 3 kg. His history is significant for maternal PROM 26 hours prior to delivery. The infant is floppy with poor respiratory effort at birth. Maternal GBS status is unknown. Ampicillin and gentamicin are ordered for suspected sepsis. Which of the following statements regarding ampicillin is false?
   a. Ampicillin is bacteriocidal
   b. Large doses of ampicillin may be associated with seizure activity
   c. The infant’s dose of ampicillin should be 200 mg/kg/dose

35. Baby Ben weighs 3 kg. He has an order for ampicillin 200 mg/kg/day given every 8 hours. How many milligrams should Baby Ben receive for each dose?
   a. 100 mg
   b. 200 mg
   c. 300 mg

36. Baby Jason is receiving caffeine to treat apnea of prematurity. During your assessment you are concerned that he may be presenting signs of drug toxicity. Which of the following symptoms would be of most concern?
   a. Jitteriness
   b. Poor sleeping pattern
   c. Heart rate greater than 180 bpm
37. A 30 week gestational age infant has just been extubated and his IV is no longer in place. The order for caffeine is written for 10 mg/kg to be given IV. The initial response by the bedside nurse should be:

a. Monitor for apnea and if noted, restart the IV
b. Determine if the order can be changed to be administered PO
c. Request that the order be canceled because the patient does not require any further respiratory support

38. A 26 week gestational age infant is now 3 weeks old, weighs 1500 gms and has developed E. coli meningitis. The physician orders ampicillin and cefotaxime. Which statement about cefotaxime is false?

a. Measuring serum concentrations is usually not necessary
b. Cefotaxime has a poor CSF penetration and should not be used
c. Cefotaxime is a third generation cephalosporin with a bacteriocidal mechanism of action
d. Cefotaxime can be given as a gonococcal ophthalmic prophylaxis

39. Baby Ed was born at 27 weeks gestation and has required assisted ventilation for the past three weeks. His respiratory status has worsened and his chest x-ray shows infiltrates. He is started on ceftazidime. Which of the following is NOT true?

a. This medication can be given by rapid IV push
b. Lidocaine 1 percent can be used to decrease pain at the IM injection site
c. An IV infusion should be given over 30 minutes via an IV infusion pump

40. Chlorothiazide (Diuril) sodium has been ordered for the infant you are caring for. Which of the following statements is false?

a. Administering chlorothiazide sodium with food improves absorption
b. Chlorothiazide sodium may be used safely in patients with significantly impaired renal function
c. Infants receiving this medication are placed on accurate intake and output

41. Chlorothiazide and Hydrochlorothiazide are the same medication.

a. Correct
b. Incorrect

42. Baby Joey has BPD and his oxygen requirements have increased. His chest x-ray shows some edema. He has an order for chlorothiazide. What needs to be monitored while the infant is receiving this drug?

a. Urinary output
b. Blood pressure
c. Serum electrolytes, calcium, and phosphorus
d. All of the above
43. Baby Sam weighs 1200 gms. What would be his correct dose of acyclovir using the following information? Dose is 20 mg/kg; interval for neonates is every 12 hrs. The vial contains 500 mg diluted in 10 ml of normal saline. This is further diluted by adding 1 ml to 9 ml normal saline.

Dose: ________ mg
Volume: _________ ml/dose IV over _________ hours

44. Baby Jane is to receive adenosine 0.2 mg/kg by rapid IV infusion. She weighs 2850 gms and the drug is supplied as 3000 mcg/ml (6 mg/2 ml).

Dose ____________Volume ___________

45. The infant weighs 850 grams. He will receive 0.25 mg/kg of amphotericin B over 6 hrs. Calculate the correct dose that will be diluted.

Dose _____________

46. An infant weighs 1.2 kg. Calculate the correct dose and volume of ampicillin using the following information. Dose is 150 mg/kg/day given every 12 hours. Available preparation 1 gm vial, dilute with 10 ml sterile water.

Dose ____________Volume ___________

47. Calculate the correct dose of caffeine using the following information. The infant weight 1500 gms, the loading dose is 10 mg/kg and the maintenance dose is 2.5 mg/kg.

Loading dose: __________________________
Maintenance dose: ______________________

48. Calculate Baby Ed’s dose for ceftazidime using the following information: He weights 1600 gms, the dose is 50 mg/kg, and it is supplied as 500 mg reconstituted at 50 mg/ml.

Dose: _____________________________
Volume: ____________________________

49. Sara’s order reads: “Diuril 22 mg every 12 hours PO with feedings”. Her weight is 2220 gms. Diuril is supplied as 250 mg/5 ml. How many milliliters will you administer?

Dose Volume: _______________________

50. Calculate the correct dose of chlorothiazide using the following information:
Weight of 1650 gms, dose is 10 mg/kg and it is supplied as a liquid suspension of 50 mg/ml.

Dose: ____________________________ Volume: ____________________________

Employee’s signature: ____________________________ Date: __________