Indian Academy of Pediatrics





Ready Reckoner IAP UG Quiz Book

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Neonatology

Basavanthappa SP, Anusha S

1. What is the term for deaths that occur within the first week of life?

Ans. Early neonatal deaths

2. What is the leading cause of neonatal mortality in India?

Ans. Preterm birth complications

3. What is very low birth weight (VLBW) neonate?

Ans. A neonate weighing <1,500 g at birth regardless of gestational age

4. What is extremely low birth weight (ELBW) neonate?

Ans. Neonate weighing <1,000 g at birth regardless of gestational age

5. What is perinatal mortality rate?

Ans. The ratio of perinatal deaths (stillbirths plus neonatal deaths before 7 days of life) per 1,000 live births

6. What is the reflex that preserves blood flow to the heart and brain during asphyxia called?

Ans. Diving-in reflex

7. What is the objective method of evaluating the newborn's condition performed at 1 minute and again at 5 minutes after birth?

Ans. Apgar score

8. What should be considered if the heart rate is below 100 beats per minute during neonatal resuscitation?

Ans. Supplementary oxygen

9. What action should be taken if the heart rate is persistently below 60 beats per minute during neonatal resuscitation?

Ans. Intravenous (IV) epinephrine

10. What is the recommended target oxygen saturation level after birth according to the neonatal resuscitation algorithm 1 minute?

Ans. 60-65% at 1 minute

11. What is the recommended target oxygen saturation level after birth according to the neonatal resuscitation algorithm 10 minute?

Ans. 85-95% at 10 minutes

12. What is the recommended suction pressure when suctioning the newborn's mouth or nose?

Ans. Around 80 mm Hg (100 cmH₂O)

13. What is the primary method of providing positive pressure ventilation (PPV) during neonatal resuscitation?

Ans. Self-inflating bag and face mask

14. What should be the flow rate of oxygen when providing supplemental oxygen to a newborn?

Ans. At least 5 L/minute

15. Till what time you can resuscitate the newborn in room air without 100% oxygen?

Ans. 90 seconds

16. When is bag and mask ventilation (BMV) contraindicated during neonatal resuscitation?

Ans. In suspected or confirmed diaphragmatic hernia

17. What is the recommended oxygen concentration for PPV in preterm babies?

Ans. Intermediate concentration of oxygen (21-30%)

18. What is the primary goal of PPV during neon at alresuscitation?

Ans. Ensuring adequacy of ventilation

19. What should be continuously monitored during PPV to titrate the oxygen concentration appropriately?

Ans. Oxygen saturation by pulse oximetry

20. What is the recommended sequence for providing PPV during neonatal resuscitation?

Ans. Squeeze, two, three

21. At what rate should ventilation be carried out during neonatal resuscitation?

Ans. 40-60 breaths per minute

22. What should be the initial pressure for the first one to two breaths during PPV?

Ans. $30-40 \text{ cmH}_2\text{O}$

23. When are chest compressions indicated during neonatal resuscitation?

Ans. When the heart rate is below 60 beats/min even after 30 seconds of PPV

24. How should chest compressions be performed on a neonate?

Ans. Using the thumb technique, with the two thumbs used to depress the sternum.

25. How many chest compressions and breaths are administered in 1 minute during neonatal resuscitation?

Ans. 90 chest compressions and 30 breaths, maintaining a ratio of 3:1.

26. When should chest compressions be discontinued during neonatal resuscitation?

Ans. When the heart rate is 60 beats/min or above.

27. What should be done if the heart rate remains below 60 after 30 seconds of chest compressions during neonatal resuscitation?

Ans. Chest compressions should continue along with BMV, and medications like epinephrine should be administered.

28. What is the purpose of the black line near the tip of some endotracheal tubes?

Ans. It is called a vocal cord guide, meant to be positioned at the level of the vocal cords to facilitate correct placement of the tube above the bifurcation of the trachea.

- 29. What is the suggested dosage of epinephrine for neonatal resuscitation?
- Ans. A dose of 0.1 mL/kg administered via the umbilical vein
- 30. What is the concentration of adrenalin used in neonatal resuscitation?
- Ans. A concentration of 1:10,000
- 31. What is the preferred route of administration for medications during neonatal resuscitation?
- Ans. The umbilical vein is preferred due to the difficulty in accessing veins in the scalp or extremities during resuscitation.
- 32. What is the indication for using sodium bicarbonate during neonatal resuscitation?
- Ans. It is indicated only if prolonged asphyxia is associated with metabolic acidosis despite the use of epinephrine and volume expanders.
- 33. How is epinephrine administered if IV access cannot be obtained during neonatal resuscitation?
- Ans. It can be injected directly into the tracheobronchial tree through the endotracheal tube, flushed with 0.5 mL of normal saline, and dispersed into the lungs by PPV.
- 34. What is the drug used for respiratory depression associated with maternal narcotic use in newborn?
- Ans. Naloxone
- 35. What is the role of atropine, in newborn resuscitation in the delivery room?
- *Ans.* There is no role for these medications in newborn resuscitation.
- 36. What is the role of calcium, mannitol, and dextrose, in newborn resuscitation in the delivery room?
- *Ans.* There is no role for these medications in newborn resuscitation.
- 37. What is the drug given to prevent hemorrhagic disease of the newborn?
- Ans. Vitamin K

38. What are the five cleans to prevent sepsis at birth?

Ans. Clean hands, clean surface, clean blade, clean tie, and clean cord

39. When do you recommend early cord clamping?

Ans. Rh isoimmunization, hepatitis B surface antigen (HbSAg) +ve mother, ABO incompatibility, human immunodeficiency virus (HIV)-positive mother

40. What is the recommendation for cord clamping?

Ans. Delay for 1 minute except in few situations

41. Which vitamin causes hemolysis in glucose-6-phosphate dehydrogenase (G6PD) deficient babies?

Ans. Vitamin K

42. How long should a normal newborn stay in the health facility before discharge?

Ans. At least 24 hours

43. What is the typical range of weight loss in the first week of life for newborns?

Ans. 8-10%

44. What is the term for the papular lesions on erythematous base seen in many babies on day 2 or 3 of life?

Ans. Erythema toxicum

45. How often are Apgar scores assigned after birth if the score is <7?

Ans. Every 5 minutes until 20 minutes or till two successive scores are 7 or greater

46. What can falsely lower Apgar scores in infants?

Ans. Maternal drug intake

47. How is temperature measured in a newborn?

Ans. In the apex of the baby's axilla

48. What are the potential causes of bradycardia in a newborn?

Ans. Heart disease

- 49. How is capillary refill time assessed in newborns?
- *Ans.* By applying firm pressure on the sternum area for 5 seconds and observing the time taken to refill
- **50.** What scoring system is commonly used to assess gestational age?

Ans. The Expanded New Ballard Scores (ENBS)

- 51. What are the anomalies associated with single umbilical artery?
- Ans. Renal and gastrointestinal tract (GIT) anomalies
- 52. When do you say clitoromegaly in newborn female baby?

Ans. When the length is >0.5 cm

- 53. When do you say the baby is having micropenis?
- Ans. When the stretched penile length is <2.5 cm
- **54.** Where should pressure be applied during chest compressions to avoid the xiphoid?
- Ans. Lower third of the sternum
- 55. What action should be taken if the heart rate is 60 bpm or above during resuscitation?
- Ans. Discontinue chest compressions and continue BMV.
- **56.** What is the recommended dose of naloxone for neonatal resuscitation?

Ans. $0.25 \,\mu g/kg$

- 57. What does a ponderal index of <2 indicate?
- Ans. Indicates intrauterine growth restriction (IUGR) babies
- **58.** What reflex is best elicited by the sudden dropping of the baby's head in relation to the trunk?
- Ans. Moro reflex
- 59. What are the four ways heat loss occurs in newborns?
- Ans. Radiation, convection, conduction, and evaporation
- **60.** What is the function of brown fat?
- Ans. Thermogenesis

61. What is the thermoneutral zone for newborns?

Ans. The narrow range of environmental temperature in which a baby has the lowest basal metabolic rate and oxygen utilization, and the baby has a normal body temperature.

62. What is considered normal body temperature for newborns?

Ans. 36.5-37.5°C

63. What temperature range defines hypothermia in newborns?

Ans. Less than 36.5°C

64. What is cold stress, or mild hypothermia, defined as in newborns?

Ans. 36.0-36.4°C

65. At what temperature is severe hypothermia considered in newborns?

Ans. Less than 32°C

66. What is the recommended rate of rise of temperature during rewarming for severe hypothermia?

Ans. 0.5°C per hour

67. What are the two hormones involved in lactogenesis?

Ans. Prolactin and oxytocin

68. Stimulated by suckling, stimulates milk secretion is mediated by which hormone?

Ans. Prolactin

69. Stimulated by suckling, thought, sight, or sound of baby; ejects milk is mediated by which hormone?

Ans. Oxytocin

70. The milk secreted after 3-4 days until 2 weeks, with decreasing immunoglobulin and protein content and increasing fat and sugar content is called?

Ans. Transitional milk

71. What is hindmilk rich in?

Ans. The milk secreted later toward the end of a feed, richer in fat

72. Wide-open mouth, nipple and most of the areola in the mouth, chin touching the breast, and lower lip everted are indicative of?

Ans. Good attachment

73. Slow suckling with pauses for swallowing, full cheeks, and audible gulping sounds indicative of what in breastfeeding?

Ans. Signs of effective sucking

74. Where syringe technic is used in breastfeeding?

Ans. To correct the inverted nipple

75. Swelling, hardness, warmth, and pain in the breast due to accumulation of milk in the alveoli when milk production exceeds storage capacity are called?

Ans. Breast engorgement

76. Till what time expressed breast milk (EBM) can be stored in room temperature?

Ans. 6-8 hours

77. Till what time EBM can be stored in refrigerator?

Ans. Up to 24 hours

78. Till what time EBM can be stored in freezer at -20° C?

Ans. Up to 3 months

79. What is the symmetric IUGR?

Ans. Symmetric IUGR: Insult on fetal growth occurs early, resulting in equally reduced head circumference, body weight, and length.

80. What is asymmetric IUGR?

Ans. Asymmetric IUGR: Insult occurs late in gestation, preserving head circumference relative to length and weight, causing a brain-sparing effect.

81. Why are low birth weight (LBW) babies at increased risk of metabolic derangements like hypoglycemia?

Ans. They have low hepatic glycogen stores, placing them at increased risk of hypoglycemia, and rapid depletion of glycogen due to their small size and increased metabolic demands.

82. Who is eligible for Kangaroo Mother Care (KMC)?

Ans. All stable LBW babies

83. What is the recommended positioning for KMC?

Ans. Between the mother's breasts in an upright position

84. How should the baby's head be positioned during KMC?

Ans. Turned to one side and slightly extended

85. What position should the baby's hips be in during KMC?

Ans. Flexed and abducted in a "frog" position

86. Where the baby's abdomen should be positioned relative to the mother's body during KMC?

Ans. At the level of the mother's epigastrium

87. How should the baby's bottom be supported during KMC?

Ans. With a sling or binder

88. How long should skin-to-skin contact sessions last during KMC?

Ans. Up to 24 hours a day, interrupted only for changing diapers.

89. When should KMC be stopped?

Ans. Once the baby attains a weight of 2,500 g and a gestation of 37 weeks or shows signs of discomfort or resistance.

90. What is the primary fluid compartment with an excess of total body water (TBW) in neonates?

Ans. Extracellular fluid (ECF) compartment

91. Why do preterm neonates have a higher risk of losing a greater percentage of birth weight in the first week of life compared to term neonates?

Ans. Due to their proportionately higher TBW

92. What is the term for water loss through evaporation from the skin and respiratory tract in neonates?

Ans. Insensible water loss (IWL)

93. What should be added to IV fluids after 48 hours for babies with birth weight >1,500 g?

Ans. Sodium and potassium

94. How much dextrose should be administered to babies with birth weight <1,500 g on day 1 of life?

Ans. 80 mL/kg/day of 10% dextrose

95. What urine output is indicative of a well-hydrated baby?

Ans. 1-3 mL/kg/hour

96. When do you say oliguria in neonates?

Ans. When urine output is <1 mL/kg/hour

97. At what gestational age does a coordination between sucking and swallowing occur?

Ans. 34 weeks of gestation

98. What is the suggested method of feeding for infants <28 weeks of gestational age?

Ans. Gastric tube feeding

99. At what gestational age should breastfeeding be initiated if the infant is able to suck effectively and long enough?

Ans. 32-34 weeks

100. What is the choice of feeding method for LBW infants at 28-31 weeks gestational age?

Ans. Spoon or paladai feeding

101. What is the expected weight gain in LBW infants once they regain their birth weight?

Ans. At least 15–20 g/kg/day till a weight of 2–2.5 kg is reached.

102. What treatment is recommended for LBW infants with polycythemia?

Ans. Symptomatic infants or those with hematocrit >75% require partial exchange transfusion.

103. What antenatal preventive measures in known to reduce the risk of intraventricular hemorrhage in preterm infants?

Ans. Giving antenatal steroids

104. What should be avoided to prevent retinopathy of prematurity (ROP)?

Ans. Avoiding high oxygen saturation

105. What treatment is recommended for symptomatic infants or those with hematocrit >75% due to polycythemia?

Ans. Partial exchange transfusion

106. What is the dose of iron should LBW babies be started?

Ans. 2-3 mg/kg/day

107. What topical applications are recommended for oral thrush in newborns?

Ans. Nystatin or clotrimazole

108. When do you say early-onset sepsis (EOS)?

Ans. Onset of sepsis <7 days

109. What diagnostic test provides definitive diagnosis of neonatal sepsis?

Ans. Blood culture

110. What are the neurological manifestations indicating hypoxic-ischemic encephalopathy?

Ans. Seizures

111. What CO₂ concentration range should be maintained for ventilated babies?

Ans. 40-50 mm Hg

112. What is the recommended systemic mean arterial pressure for term infants to maintain normal cerebral perfusion?

Ans. 45-50 mm Hg

113. What glucose level range is recommended for infants with hypoxic-ischemic encephalopathy?

Ans. 75-100 mg/dL

114. What condition is the most likely cause of respiratory distress in preterm babies within the first few hours of life?

Ans. Respiratory distress syndrome (RDS)

115. What is the primary abnormality in RDS?

Ans. Surfactant deficiency

116. What is a noninvasive modality of support used for managing mild-to-moderate RDS?

Ans. Continuous positive airway pressure (CPAP)

117. What radiological feature is observed in moderate-to-severe RDS?

Ans. Homogeneous opacification of lungs

118. What is the treatment of choice for moderate-to-severe RDS?

Ans. Exogenous surfactant

119. What major breakthrough in the management of preterm infants has reduced the incidence of RDS?

Ans. Administration of antenatal steroids

120. What are the contraindications for administering antenatal corticosteroids (ACS) for preterm labor?

Ans. Frank chorioamnionitis

121. Preterm baby born with respiratory distress on examination has excessive drooling of saliva from the mouth. What is the likely diagnosis?

Ans. Tracheoesophageal fistula (TEF)

122. How is apnea defined in neonates?

Ans. Cessation of respiration for 20 seconds with bradycardia and cyanosis

123. What is the cause of apnea of prematurity?

Ans. Immaturity of the developing brain and respiratory center

124. How is apnea of prematurity treated?

Ans. With aminophylline or caffeine

125. Why caffeine is preferred over aminophylline in treatment of apnea of prematurity?

Ans. Because of less side effects, aminophylline has got narrow therapeutic index.

126. How can bilirubin levels be clinically estimated in newborns?

Ans. Kramer rule

Ready Reckoner IAP UG **Quiz Book**

Salient Features

- It is specifically designed for IAP UG Quiz
- Questions are selected from stalwarts' guiz master of IAP UG Quiz across the country
- All chapters of this book are covered as per quiz syllabus
- Majority of questions are referred from OP Ghai's Textbook of Pediatrics (10th edition), Nelson's Textbook of Pediatrics (21st Edition), and IAP Purple Book of Immunization Guidelines (4th Edition).

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