

IAP Fellowship Examination (Theory 2)

February 2017

All questions need to be attempted and carry equal marks

1. 36 years mother presents to the labour room with meconium stained amniotic fluid. Delivers the baby who is depressed at birth. Moved to NICU and put on ventilator for worsening respiratory distress and decreased saturations.
 - a) Discuss the intrapartum management of the mother to reduce the chances of MAS (3)
 - b) Discuss the delivery room management of the baby who is depressed at birth (3)
 - c) Discuss the potential pathophysiological mechanism of respiratory distress due to meconium aspiration (5)
 - d) Discuss the ventilator strategies for baby with MAS (4)
 - e) What is the role of surfactant (3)
 - f) Discuss the role of steroids in MAS (2)

2. A male baby was delivered by LSCS at 38 weeks of gestation for antepartum hemorrhage and fetal bradycardia. Baby's Apgar scores were 2, 6 and 8 at 1, 5 and 10 minutes after birth. Baby required bag and mask ventilation for 3 minutes during resuscitation. Cord pH of the baby was 6.96 and Base excess was -14.4. At 1 hour of life in NICU baby was lethargic, hypotonic, having distal flexion and incomplete Moro's reflex, pupil were constricted and had HR of 90 per minute.
 - a) How do you manage such baby (Monitoring, investigation and treatment)? (7)
 - b) What are the different types of neuropathological brain injury in HIE? What type of injury this baby is most likely to have? (5)
 - c) What are the principles of cooling therapy in HIE? (5)
 - d) How do you prognosticate at the time of discharge? (3)

3. 30 weeks female baby, weighing 900 grams is admitted in NICU at 1 hour of life. Baby was born to a mother having PIH and umbilical artery doppler study showing reversal of diastolic flow. There is no significant respiratory distress.
 - a) What is your target calorie and protein intake in this baby on day 1, day 4, day 7 and day 15? How will you manage the nutrition in this baby till discharge? (10)
 - b) What are the differences in the enteral feeding strategies of preterm AGA baby and preterm IUGR baby? (3)
 - c) What is feed intolerance and how do you manage it? (4)
 - d) What are your strategies to ensure lactation in such a mother? (3)

4. 36 weeks baby was well and sucking on the breast and suddenly started having abnormal jerky movements of the limbs at 48 hours of life
 - a) What are the different non epileptic motor phenomenon and how would you differentiate from neonatal seizures (5)
 - b) What are the clues on physical examination of the baby which could give an idea about the etiology of the neonatal seizures (5)
 - c) Discuss the management of this child (7)
 - d) Discuss the prognosis and counseling to the parents (3)

5. A 39 weeks baby with birth weight of 3.5 kg on day 6 of life was referred to the emergency with TSB of 29 mg/dl. Baby was born to a primi mother with blood group B+ by LSCS. The baby was on exclusive breast feeding. The baby's weight at admission was 2.9 kg and there was no signs of acute bilirubin encephalopathy.
 - a) What will be the treatment approach for this baby? (5)
 - b) What are the indications of immediate exchange transfusion? (2)
 - c) What are the components of crash-cart treatment of severe NNJ? (7)
 - d) What are the major and minor risk factors for development of severe neonatal jaundice? (3)
 - e) What are the factors that affects the dose and efficacy of phototherapy? (3)