Case Presentation

A 1700-g, low-birth-weight, preterm infant was born at 32 weeks gestation. At delivery, the infant was not breathing or crying, and had poor tone. The umbilical cord was clamped immediately, and the infant was warmed to a stable, normal temperature and dried. The airway was positioned, and secretions were cleared. Unsuccessful efforts were made to stimulate the infant. On initial auscultation, the infant’s heart rate was 45 bpm, and positive pressure ventilation (PPV) was initiated. After 30 seconds of PPV, there was no change in heart rate. Corrective steps (mask adjustment, repositioning, etc) were taken to ensure effective ventilation was being achieved, but repeat ventilation failed to increase the infant’s heart rate above 60 bpm. The infant was intubated, an ECG monitor placed, and chest compressions initiated. After 60 seconds of compressions, the infant’s heart rate had not increased. Intravenous epinephrine was administered and another 60 seconds of compressions performed, which increased the heart rate to >60 bpm.

Discussion Items

- Has your institution adopted the 2015 Neonatal Resuscitation Guidelines? If not, when will they be adopted? Is there a transition plan in place for adopting the new recommendations?
- What are your initial steps when a preterm infant is born and is not breathing or crying? Do your procedures differ for full-term infants?
- Do you routinely perform suction and intubation in non-vigorous, meconium-exposed infants?
- At what point do you clamp the cord in pre- and full-term infants? Do you delay cord clamping in infants who are born requiring resuscitation?
- How do you assess the effectiveness of ventilation? Do you use the MR SOPA schema?
- How do you initially assess an infant’s heart rate? Do you use auscultation or palpation of the umbilical cord?
- Do you intubate prior to chest compressions?
- Do you use electronic cardiac monitors after initiating PPV? After initiating chest compressions?
- When do you use epinephrine?
- How do you administer epinephrine? Intravenously or via endotracheal route?
- Does your team hold a postresuscitation debriefing?


