

## Interdisciplinary Resuscitation Simulation using infant resuscitator

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The following scenario is an event of neonatal resuscitation that could occur in the Intensive Care Nursery (ICN) or Neonatal Intensive Care Unit (NICU). Sim-Baby (portable advanced infant patient simulator for team training) was utilized during this simulation. This simulation/learning activity represents a depiction of how interprofessional teams work efficiently and effectively in hospital scenarios. Two goals of interprofessional education are for health professionals to a) know the roles of other health professionals and b) to work effectively as integrated health care teams.

This video can be used in various ways in your curricula: 1. to demonstrate an infant code simulation; 2. to demonstrate roles of nurse, neonatal nurse practitioner, neonatologist, respiratory therapist, and X-ray technologists in infant code situation; 3. to demonstrate interprofessional collaboration, and 4. others that you may determine. Discussion questions based on these learning objectives or others can be developed to guide students in your specific curriculum. Students could view the video independently or as a group to answer or discuss the guided questions.

**N.B. IT IS IMPORTANT TO NOTE TO LEARNERS VIEWING THIS VIDEO THAT GLOVES SHOULD BE WORN DURING THIS INTERVENTION. THIS WAS AN OMISSION DURING THE VIDEO PRODUCTION.**

The neonatal nurse practitioner (NNP) student (Markia Bennett, RN, BSN) and neonatal nurse practitioner (portrayed by Ann Phalen, Ph.D, APRN, NNP-BC) begin resuscitation interventions on simulator SimBaby- Baby Boy Fall. Respiratory therapist (Brian Glynn, BS, RTT) and neonatologist (Kevin Dysart, MD) assist in the code. Once stabilized the X-Ray technicians (Lisa Cohen and Rachel Connors, radiology students) take a chest x-ray of the neonate for endotracheal tube evaluation. The delivery history of the neonate is as below.

Baby Boy Fall is an infant weighing 4.23 kg, large for a gestational age infant, (LGA) at 40 weeks gestation. He was born via stat c-section to a healthy 26-year-old primigravida woman. Mother Fall's prenatal labs are: O (+), Rubella (I), RPR non-reactive.

Mother Fall's membranes were ruptured 18 hours prior to delivery with thick particulate meconium. Baby boy in utero had decelerations and decrease variability with a consistent fetal heart rate that was assessed as fetal bradycardia for greater than two minutes. Baby Fall was delivered via stat c-section due to decelerations, without variability and fetal bradycardia.

In the delivery room baby boy Fall was suctioned via nasopharynx and oropharynx for thick meconium once the head presented on the abdomen. He was placed

on a radiant warmer, and intubated with a 3.5 ET tube and suctioned for thick meconium, as per neonatal resuscitation protocol.

Baby Boy Fall's one-minute APGAR was 3; five-minute APGAR was 6, and ten minute was 7. He stabilized in the delivery room with vital signs that were within normal limits: (heart rate 144 beat per minute; respiratory rate 50 breaths per minute; temperature 36.5 degree centigrade). Additionally, his initial glucose-bedside screening was 80%.

Baby Fall was transferred to the ICN for glucose screening, as per protocol for LGA infants greater than 4200 grams. His second glucose bedside screening at 45 minutes of age was 44 A peripheral IV was started in his right hand with 2cc/kg/dose of D10%W given and an IV infusion hypoglycemia with the infant receiving 100 cc/kg/day of D10% W glucose infusion rate of 6.9 mg/kg/minute.

Baby Fall's vital signs were stabilized: heart rate 120 beats/ minute; respiratory rate, axillary temperature 36.50 centigrade, and pulse oximetry in room air was 98 % saturation.

Baby Fall's admission procedure was completed and surveillance of glucose monitoring was continued as per protocol. The staff nurse was checking her neonate as she is preparing to change her shift at the beginning of the recording.

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**Sample guiding questions:**

- 1. Discuss the role of each of the health professionals who participated in the simulation.**
- 2. Identify three positive interprofessional collaboration skills that were demonstrated during the intervention.**
- 3. Discuss the barriers and benefits of interprofessional team work.**