

Neonatal resuscitation: Stabilization, delivery room care and initial treatment of the very low birth weight infant

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The first hour of a newborn's life is fraught with difficulty. At birth many physiologic changes must take place for the fetus to make the transition from the intrauterine to extrauterine environment. In all newborns this includes clearance of lung fluid, initiation of air breathing, conversion from fetal to adult circulation and thermal regulation. Recommendations regarding the fundemental issues of resuscitation of these infants are developed and disseminated by the International Liaison Committee on Resuscitation and other organizations. However, these recommendations frequently do not address the needs of the very low birth weight infant and do not address some of the nuances that might lead to improved outcome. Evidence-based interventions that were felt to be important in achieving better outcome in the delivery room for very low birth weight infants include: (1) Use of a checklist to prepare for all high-risk neonatal resuscitations, (2) Obtaining a pulse oximetry reading by 2 minute of life and continously monitoring the heart rate and oxygen saturation, (3) Maintaining normal temperature in very low birth weight infants, (4) Administering surfactant as soon as possible after birth for eligible infants, (5) Avoiding hypocapnia and hypercapnia by monitoring PaCO2 in the delivery room and (6) Improving teamwork and communication in the delivery room by use of briefings, debriefings and other methods. These interventions with improved organization and teamwork as well as improved monitoring and respiratory support can potentially improve the outcome of these infants. These practices will be reviewed and the evidence behind these recommendations regarding the serious issues of neonatal resuscitation will be discussed during this presentation.

Biography

Belma Saygili Karagol completed her MD. and Ph.D from Dr Sami Ulus Maternity, Children's Research and Education Hospital, in Turkey. She is especially interested with national neonatal resuscitation programme in her own country and she is an attending on this subject. She has visited Neonatal Intensive Care Unit of Columbia University Morgan Stanley Children's Hospital, New York, USA for 4 months and she has worked together with Professor Richard Polin in Columbia University. She has many clinical trials on different subjects of neonatology including hyperbilirubinemia, transient tacypnea of the newborn, hypoxic ischmemic encephalopathy and she is a specialist on neonatal resuscitation in her country.