EXAMINING NEW GUIDELINES FOR MECONIUM PRESENTATION IN INFANTS: A RETROSPECTIVE ANALYSIS FOR INFANT OUTCOME AND TREATMENT OPTIONS.

GH Davidson, University of Washington School of Medicine, RJ Flaherty, MD, Department of Family Medicine, University of Washington, Seattle, WA.

In 2000, the International Guidelines Conference on Cardiopulmonary Resuscitation and Emergency Cardiac Care formulated new evidence based recommendations for neonatal resuscitation pertaining to the delivery room management of apparently vigorous meconium stained infants. It stated it is no longer necessary to perform direct tracheal suctioning if the infant is vigorous independent of the degree of meconium staining. Direct tracheal suctioning is necessary in the nonvigorous meconium stained neonate. Approximately 12% of deliveries are complicated by the presence of meconium which is regarded as a risk of fetal distress and if aspirated, may lead to further complications including meconium aspiration syndrome. Yet, there is evidence that tracheal suctioning of the vigorous infant with meconium stained fluid does not improve outcome and may cause further complications. A retrospective analysis was preformed in order to evaluate the management and outcomes in meconium stained infants (n=173). The purpose of this study is to examine outcomes between infants born with meconium staining that undergo direct tracheal suctioning and those that do not undergo this method of treatment. Outcomes examined include hospital stay, APGAR score, NICU admission, diagnosis of meconium aspiration syndrome, as well as intubation. Patients were grouped according to their status of thick, thin, or terminal meconium, gestational age, sex, and treatment intervention. Physicians treated 2.8% of infants noted to be vigorous at birth with direct tracheal suctioning. Fetal distress was charted in 15% of all meconium infants; of those, only 2.9% underwent deep suctioning. Infants that underwent direct tracheal suctioning started out with a lower one minute APGAR, but they improved to nearly the same number at 5 minutes as those infants that did not undergo this intervention. In addition, positive pressure ventilation and NICU admissions were nearly equal between each group but there was a 38.6% increase in hospital stay in infants with direct tracheal suctioning. Meconium aspiration syndrome was diagnosed (n=3) in 33% more infants that underwent deep tracheal suctioning. In conclusion, physicians within the study group followed recommendations pertaining to direct tracheal suctioning. There are differences in outcomes between the two groups but it is not conclusive if direct tracheal suctioning results in better outcomes for neonates.