The Global Network’s Antenatal Corticosteroids Trial in preterm births to increase neonatal survival in developing countries (ACT)

Department: Community Health Sciences

Project Sponsors: A project piloted in collaboration with Columbia University, with funding from the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD), USA

Duration: Feb 2012 – Dec 2013

Principal Investigator: Dr. Sarah Saleem

Co-Investigator: Dr. Syed Farid-ul-Hasnain, Dr. Omrana Pasha

Summary:
Preterm birth is the main cause of the four million neonatal deaths per year worldwide, 99 per cent of which occur in low-middle income developing countries. The administration of antenatal corticosteroids to babies at high risk of preterm birth is the most powerful antenatal intervention to reduce neonatal mortality, reducing neonatal death between 25-50 per cent. However, in low and middle income countries, only 10 per cent of preterm babies are currently receiving antenatal corticosteroids, for a maximum possible rate of 80 per cent, while in developed countries, more than 70 per cent of preterm babies are effectively receiving the intervention.

The ACT study seeks to test the impact of a multi-component intervention designed to increase the use of antenatal corticosteroids among mothers at risk of a preterm birth, implemented in communities in African, Asian and Latin American countries, on reducing neonatal mortality, compared to the standard delivery strategies already in place. A two-arm, parallel cluster randomized controlled trial of a multi-faceted intervention among health care providers is being conducted in the research sites of the Global Network in collaboration with the World Health Organization. The four components of the intervention include: (1) diffusing recommendations to healthcare providers for antenatal corticosteroids use, (2) training healthcare providers to identify the signs of preterm labor and eligibility criteria for antenatal corticosteroid use among pregnant women, (3) providing reminders to healthcare providers on the use of the kits, and (4) using a color-coded tape to measure uterine height in order to estimate gestational age in women at risk for preterm delivery with unknown gestational age. The primary outcome is improvement in neonatal mortality among low birth weight infants. (275 words)