Chlorhexidine Cord Care Program in Nepal

The neonatal mortality rate in Nepal is 23 per 1,000 live births and major cause of neonatal death is infection. Among newborns, exposure of the freshly cut cord stump to pathogens through hands instruments, cloths etc. may lead to infection and death. Chlorhexidine is a broad-spectrum antiseptic that is safe and effective for reducing bacterial colonization on the skin and umbilical stump of newborns. Pooled analysis of studies including study of 2006 in Sarlahi, Nepal has shown that immediate cleansing of the umbilical cord with 4% chlorhexidine (equivalent to 7.1% Chlorhexidine Digluconate w/v) reduces mortality risk by about 23%. After this a study was conducted in Maternity hospital, Thapathali and demonstrated that a gel preparation was as effective as an aqueous preparation. Another study on acceptability was done at the community level and demonstrated a clear preference for a gel preparation. Then a pilot was done in four districts (Bajhang, Jumla, Banke and Parsa) to determine the coverage and compliance in the Nepalese context and within the existing public health service delivery system. Based on the encouraging results of all studies conducted in Nepal, the government of Nepal approved the use of 4% chlorhexidine for umbilical cord care as part of essential newborn care on 23rd December, 2011 (2068 Poush 8, BS). It has already been scaled up to 49 districts as of February 2015 and included in Health Management Information System, Essential Drug List, Community Based Integrated Management of Newborn and Childhood Illness program and pre-service curriculum of Auxiliary Nurse Midwife.

Ministry of Health and Population was awarded with USAID Pioneers Prize 2013 for the chlorhexidine cord care program. USAID through JSI R&T's Chlorhexidine Navi Care Program and other partners are supporting government to scale up chlorhexidine cord care program in Nepal.



CHX in Nepal: A timeline

2002-5

Initial efficacy research in Sarlahi 2006 Sarlahi trials show 34% reduction in neonatal mortality 2008-9 efficacy and community acceptability study on liquid vs. gel

2011 Regional conference held in Nepal, piloting in three districts

2014

Scale up to **49 districts**, included CHX in ANM curriculum, HMIS and CBIMNCI



International recognition



- Nepal won USAID Pioneers Prize 2013 for the Chlorhexidine cord care program.
- Nepal is a living university for CHX. Nepal hosted study tour of over 200 participants from 20+ countries

Sepsis is the leading cause of neonatal deaths in Nepal



Pooled Analysis

23% reduction in mortality among those receiving intervention

MORTALITY: Any CHX vs. No CHX



Source: Imdad, Mullany, Baqui, et al, BMC Public Health, 2013



Chlorhexidine within Essential Drug List, HMIS forms and CBIMNCI.

Key Message

- CHX application saves newborn lives
- CHX is safe, acceptable and low-cost
- Harmful cord care practices can be replaced
- Mother or family members can easily apply
- Easy to distribute to pregnant women through communitybased volunteers and antenatal clinics included in the public health service delivery system

