

THE BIG READ

How Lira medics have

Many newborn babies in Uganda get bacterial infections, majorly due to poor hygiene. However, a simple intervention in Lira Hospital has greatly reduced the infections, writes Agnes Kyotalengerire

"Pe Imaka Lavok Cingri" the Luo words on the placards pinned on the baby cot clearly read. The words mean: Don't touch me, wash your hands. At the entrance to the special care unit is another notice that reads, "Lavok Cingri, Atyevodi Pe Ilaeta loto oizno, Atyevodi which mean: Wash your hands before breastfeeding the baby, thank you.

That is not all; the corridor in the unit is lined with several waste bins in different colours. Above the bins are notices with instructions on what kind of waste goes in the bins - highly infectious waste (pieces of tissue, body fluids and blood), infectious waste (used gloves, sharp instruments such as needles and blades) and non-infectious waste such as waste paper.

Adjacent to the bins is a facility where attendants and health workers wash their hands before proceeding to check on the newborn babies as 50-year-old Robinah Alwedi, who is caring for her preterm baby testifies.

"The doctors do not allow one to enter the unit without washing one's hands. The first days of my baby's admission were challenging because I kept forgetting. But whenever I read the notice pinned on my baby's cot, I would rush back and wash my hands," Alwedi, a resident of Ilwaa Barapwo parish in Lira sub-county, explains. She says the message has now stuck to her mind.

Why the Intervention

Petau Kiboko Olobo, the senior principal nursing officer at Lira Hospital, says those who show that many newborn babies would develop bacterial infection immediately after birth, a trend she blames on health workers' negligence.

Bacterial infection is a condition where bacteria get into the bloodstream, causing illness.

"Through assessment, we realised that best practices for infection control were very



A nursing officer points at some of the messages on hand-washing in Lira Hospital. Inset is a baby cot with a message on hand-washing. Photos by Agnes Kyotalengerire

poor. One of the causes was that midwives used to handle newborn babies without washing their hands," she faults.

Hand-washing is a practice many people take lightly, with only 36% of Ugandans doing it after visiting the toilet or before eating food, according to the water and environment sector performance report 2016.

The Center for Disease Control (CDC) terms handwashing as a "do-it-yourself" vaccine against the spread of diseases.

According to records from Lira Hospital, in just a period of six months (January to June 2016) 162 newborn babies had developed neonatal sepsis at the hospital. Of these, 47 died from the condition, accounting for 5.2% neonatal deaths.

Although the percentage appears small, Olobo says the target is to have no single baby dying. "Every mother should go back home with a healthy baby," Olobo affirms.

It is based on this background that the staff of Lira Hospital embarked on infection control measures to wipe out bacterial infections among newborn babies.

According to Olobo, the hospital started implementing the infection control measures in October 2016, after they were trained by officials from Makerere School of Public Health, through its district capacity building programme and funding from the Global Fund.

The first step was to functionalise infection control by sensitising health

workers on how to protect newborn babies against bacterial infections. The workers sensitised included nurses, doctors and cleaners since they all handle babies and hospital waste. The sensitisation process was done throughout the entire project implementation period of six months.

Secondly, the hospital implementation committee made sure there was adequate supply of infection control gear such as gloves, gumbos and waste disposal bins. Unit managers were encouraged to enforce the use of standard operation procedures, for example, giving directions on how and where to dispose of waste, washing of hands with soap and water before touching newborn babies, in addition to sterilising equipment.

Additionally, baby cots and doors were labelled with messages reminding attendants and health workers to wash hands.

The hospital management also embarked on supervising

the health workers every week to ensure the standards of infection control were adhered to.

"The main objective was to improve

infection control measures to reduce the high rate of neonatal sepsis in the hospital from 5.2% to 1% by the end of six months, with specific targets of reducing newborn blood infections," Lucy Ruth Acan, a senior nursing officer at the hospital, said.

However, during project evaluation after four months, there was no improvement as the number of newborn babies admitted due to bacterial infection continued to rise.

Acan partly blames this on the fact that bacteria that cause infections

are brought into the hospital by the community. Consequently, the preventive strategies had to include the children's ward. Handwashing facilities were placed at the ward for mothers, attendants and nurses.

"We receive cases of newborn babies with bacterial blood infection from the community. Recently, we discharged a two-week-old baby who was brought in from the community," Betty Achen, the acting officer in charge of the children's ward, affirms.

Achen estimates that on average, the hospital admits about 30 cases of newborn babies with bacterial infections, majority being referrals from lower health facilities in critical stages of illnesses.

Other preventive strategies included giving antibiotics to mothers in labour, whose amniotic sac breaks before labour starts.

According to Betty Apio, a nursing officer in the maternity ward, amniotic fluid is a good medium of micro-organisms and the baby is exposed to infection, especially when the passage to the uterus is open.

However, Acan partly attributes the infection to the poor hygiene of the hands. She says some mothers are rushed to the hospital from their

washing hands and, therefore, reducing the risk of cross-infection. The use of protective gear, for example, gloves and gumbos, also improved from 10% to 100%.

Gaps Although infections among newborn babies have reduced, the hospital is still grappling with shortage of supplies. For instance, Apio says sometimes they improvise and use polythene bags.

Secondly, Lira being a teaching hospital, they keep rotating students and health workers, which calls for continuous training.

Olobo explains that because some mothers come in with babies delivered from homes or other health facilities, there is a risk of cross-infection. However, they have to continue sensitising the mothers about the benefits of controlling infection.

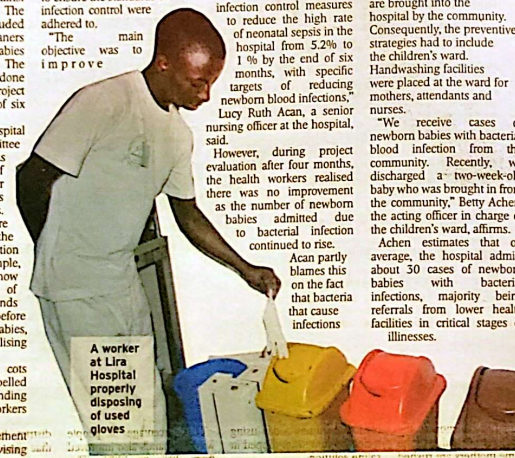
Sustainability Although implementation of the project ended, Olobo says the hospital continues to supervise and work with district health officers at Makerere University School of Public Health, they plan to roll out similar trainings across

the country as soon funding is available with particular focus on hard-to-reach districts at those that perform poorly health services delivery. It will improve the quality of health services to 1 population.

According to Dr Joseph KB Matovu, the programme support adviser for the District Capacity Building Programme at Makerere University School of Public Health, they plan to roll out similar trainings across

the country as soon funding is available with particular focus on hard-to-reach districts at those that perform poorly health services delivery. It will improve the quality of health services to 1 population.

the country as soon funding is available with particular focus on hard-to-reach districts at those that perform poorly health services delivery. It will improve the quality of health services to 1 population.



A worker at Lira Hospital properly disposing of used gloves

washed away baby deaths



A mother washing hands in Lira Hospital. The practice has kept bacterial infections at bay

CAUSES OF INFECTION

According to Dr Jolly Nankunda, the commonest cause of infections among newborn babies is bacteria. The baby may pick the germs from the mother's birth canal during delivery, especially if the canal is colonised by harmful bacteria (that which causes infection). Delivering in unhygienic environment, for example, by the roadside or cutting the umbilical cord using unsterile instruments and not washing hands before handling the baby, are factors that expose newborn babies to the risk of bacterial infection, Nankunda explains.

Practices such as putting substances like cow dung on the baby's umbilical cord stump or administering ekyogero (herbal bath) are believed to aid the bacteria get into the bloodstream, with the main entry point being the umbilical cord, eyes, mouth, skin and genital tract.

A recent study about the cause of neonatal admissions in Mulago Hospital indicated that 50% of mothers whose

babies had bacterial infections confessed having used ekyogero to bathe their newborn babies, while 2% administered it orally. The infection presents with the baby feeding poorly (or not at all), high or low temperature and sometimes restless and irritability, she explains.

She adds that some babies get swellings on their skin that contain pus. The umbilical cord stump may also drain pus. The illness may worsen if not treated, warns Nankunda. When the bacteria get to the brain, the baby develops meningitis (infection of the brain covering). The baby may convulse due to high temperature or even die.

Worldwide, bacterial infection accounts for 15% of neonatal (new born) deaths.

Nankunda advises mothers and caretakers to wash hands with soap and water before handling newborn babies. Additionally, she discourages the application of unsterile substances on their umbilical cords, for example, cow dung and herbs.



Apart from hands, mothers are also advised to make sure their nipples are clean before they breastfeed their babies. This helps to prevent infections

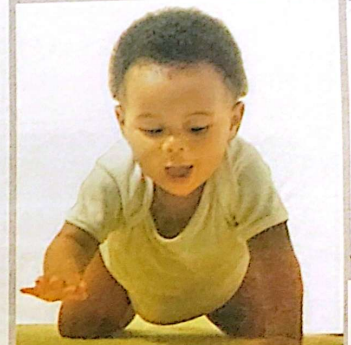
36% Only 36% of Ugandans wash hands after visiting the toilet or before eating food, according to the water and environment sector performance report 2016.

from applying things like cow dung and soot, which expose the newborn babies to bacterial infections.

Outcome Olobo attests that by May 2017, there was a drastic drop in cases of newborn babies being diagnosed with bacterial infections from 5.2% to 0.6%. Currently, there are no cases of newborn babies with bacterial infection.

Additionally, the percentage of mothers treated with antibiotics due to their amniotic sacs breaking before labour starts improved from 23.3% to 96.8%.

The percentage of people whose hands also improved from 20% to 100%. This meant all health workers were



Babies need to be kept clean to prevent bacterial infections that may lead to deaths

Scaling up

According to Dr Joseph KB Matovu, the programme support adviser for the District Capacity Building Programme at Makerere University School of Public Health, they plan to roll out similar trainings across

the country as soon funding is available with particular focus on hard-to-reach districts at those that perform poorly health services delivery. It will improve the quality of health services to 1 population.