

RCS Christmas Appeal 2017 Update for Donors October 2019

Improving Survival from Gastroschisis in Sub-Saharan Africa

In 2017, the Christmas appeal raised over £17,000 to fund specialists in newborn surgical care to accompany Miss Naomi Wright and assist in implementing a care bundle for treatment of gastroschisis in sub-Saharan Africa. Gastroschisis is the condition where the baby is born with the bowels protruding through a hole next to the tummy button.

Miss Naomi Wright, paediatric surgeon and project lead is currently in Africa with the support team you funded. Their work is progressing very well as they continue their journey training teams at the seven sites, in this new method of care. The 4 weeks at the Tamale Teaching Hospital was completed in May and during that time, a newborn with gastroschisis was admitted to the hospital. It was treated using the care bundle and survived – the first ever survivor from gastroschisis in the Northern Region of Ghana.

Dr Sandhia Naik, Paediatric Gastroenterologist and Ms Jennifer Harris, Neonatal Nurse Specialist are the RCS Christmas Appeal funded support staff who assisted Naomi at the Tamale Teaching Hospital. Thanks to you, the lives of babies will continue to be saved long into the future.

The care bundle

Like in the UK, the team are using a condom-like device to cover the bowels and reduce them back into the abdomen non-surgically over a number of days. Once the bowels are back in, the umbilical cord is pulled across to cover the hole in the abdominal wall and a large dressing is applied for 10 days. As the cord naturally closes at this time of life, the hole closes and heals up without the need for stitches. This low-tech approach helps avoid a life-threatening anaesthetic and surgery in those first few days when the baby is so sick. For about three weeks after treatment, nutrition via a vein is then required until the baby can be established on breastfeeding. The baby's bowels take time to start working again after being exposed to the fluid in the womb and then the air at birth.

The care bundle has been published, a study completed and an expert consensus reached on the best procedure to be implemented. A study took place entitled '*Barriers, Facilitators and Solutions to Improved Survival from Gastroschisis in Low Resource Settings*'. This involved interviews with all members of the multi-disciplinary team at the study centres. They explored key problems to improve survival and potential solutions. Institutions with better survival rates in low resources settings were also interviewed to learn their expertise and experience. These results will be paramount in spreading good practice in the treatment of gastroschisis in sub-Saharan Africa.



Dr Sandhia Naik (Paediatric Gastroenterologist) providing outreach teaching at Yendi District Hospital on the management of neonates with gastroschisis.

First life saved in Northern Ghana

A newborn with gastroschisis presented during the 4-week implementation phase at *Tamale Teaching Hospital & University of Development Studies, Tamale, Ghana*. The infant arrived from Bolgatanga immediately after the gastroschisis training session with the NICU and surgical teams. The entire multi-disciplinary team went to NICU and were there to undertake the resuscitation and treatment. The local and UK team reviewed the baby twice a day throughout its stay – assisting all elements of implementing the care bundle. The baby survived to discharge taking 5 days to close the defect and 7 days to build up to full feeding via intestinal tract. A further 7 days was needed for wound healing, weight monitoring and to complete antibiotics following an episode of sepsis. At follow-up in Bolgatanga the baby is feeding and growing well and the wound has healed soundly.



Neonate with gastroschisis with the bowel fully reduced and defect closed (5 days after arrival to NICU at Tamale Teaching Hospital) Thanks to the newly implemented care bundle.



Baby with being discharged home (18 days following arrival to Tamale Teaching Hospital) – the first survivor of gastroschisis in Northern Ghana.

Seven sites

- **Started May 2019** -Tamale Teaching Hospital, Tamale, Ghana,
- Korle Bu Teaching Hospital, Accra, Ghana
- Komfo Anokye Teaching Hospital, Kumasi, Ghana,
- University Teaching Hospital, Lusaka, Zambia,
- Arthur Davison Children's Hospital, Ndola, Zambia,
- Kamuzu Central Hospital, Lilongwe, Malawi,
- **ending** with Muhimbili National Hospital, Dar es Salaam, Tanzania in **December 2019**.



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ADVANCING SURGICAL CARE



Ms Naomi Wright (left) facilitating simulation training on the management of neonates with gastroschisis with the team on the Neonatal ICU Tamale Teaching Hospital.



Ms Jenny Harris (right) (Neonatal Nurse Specialist) sharing stories of patients managed with gastroschisis at the training workshop at Yendi District Hospital.



Arthur
Davison
Children's
Hospital

Kamuzu
Central
hospital

