

THE MOBILE PHONE SURGICAL CLINIC

Since the introduction of a remote consultation network based on modern technologies, surgical care in Malawi has improved markedly.

There is enough evidence of enormous benefits resulting from this simple and almost cost-free intervention, introduced in early 2018 by the SURG-Africa project.

GERALD DALITSO MWAPASA

GERALD IS THE COUNTRY COORDINATOR AND RESEARCHER FOR THE SURG AFRICA PROJECT. HE HAS 8 YEARS EXPERIENCE IN RUNNING SURGICAL CAPACITY BUILDING PROJECTS IN MALAWI AND HAS WORKED IN MEDICAL RESEARCH, COORDINATING PROJECTS AS WELL AS MONITORING CLINICAL TRIALS FOR 16 YEARS.



SURG-AFRICA IS A 4 YEAR IMPLEMENTATION RESEARCH PROJECT TO SCALE UP SAFE ACCESSIBLE SURGERY FOR DISTRICT AND RURAL POPULATIONS IN TANZANIA, MALAWI AND ZAMBIA.



In Malawi, with 80% of the population living in villages and small towns, district hospitals are the primary source of essential surgical care for rural communities. Surgical services at district level depend almost entirely on clinical officers, non-physician clinicians trained to perform basic surgical procedures along with clinical services. Until recently clinical officers practiced unsupervised and did not often have timely access to surgical specialists for consultations. This had negative effects on the functionality of the surgical system and patient outcomes. District hospital surgical teams used to refer even simple cases, such as uncomplicated hernias, when unable to seek advice. This in turn caused unnecessary congestion at central level as well as avoidable risks for patients, due to late surgical interventions. Unnecessary surgical referrals increased costs for patients, as in Malawian culture, family members and relatives follow patients to provide support during their journey through the healthcare system; and care distant from home led to increased expenses for families, impacting especially on poorer rural households.

The referral system in Malawi also had several flaws. Traditionally, patients were referred to central hospitals without prior discussion with the receiving surgical teams, carrying only a referral form that usually missed basic information about patient history, investigations performed or reasons for referral. No feedback was provided to district surgical teams after discharge from the central hospitals, leaving them ignorant regarding future patient management, hindering optimal follow up of patients.

The Scaling up Surgery for Rural Population in Africa (SURG-Africa) project works to improve surgical care in Malawi, Tanzania and Zambia. This is done through an innovative model of district level supervision and mentoring to build capacity of district hospitals in essential and life-saving surgery. The capacity building is delivered by teams of specialists (in surgery, obstetrics, anaesthesia and nursing) from central hospitals visiting district facilities on a two-monthly basis.

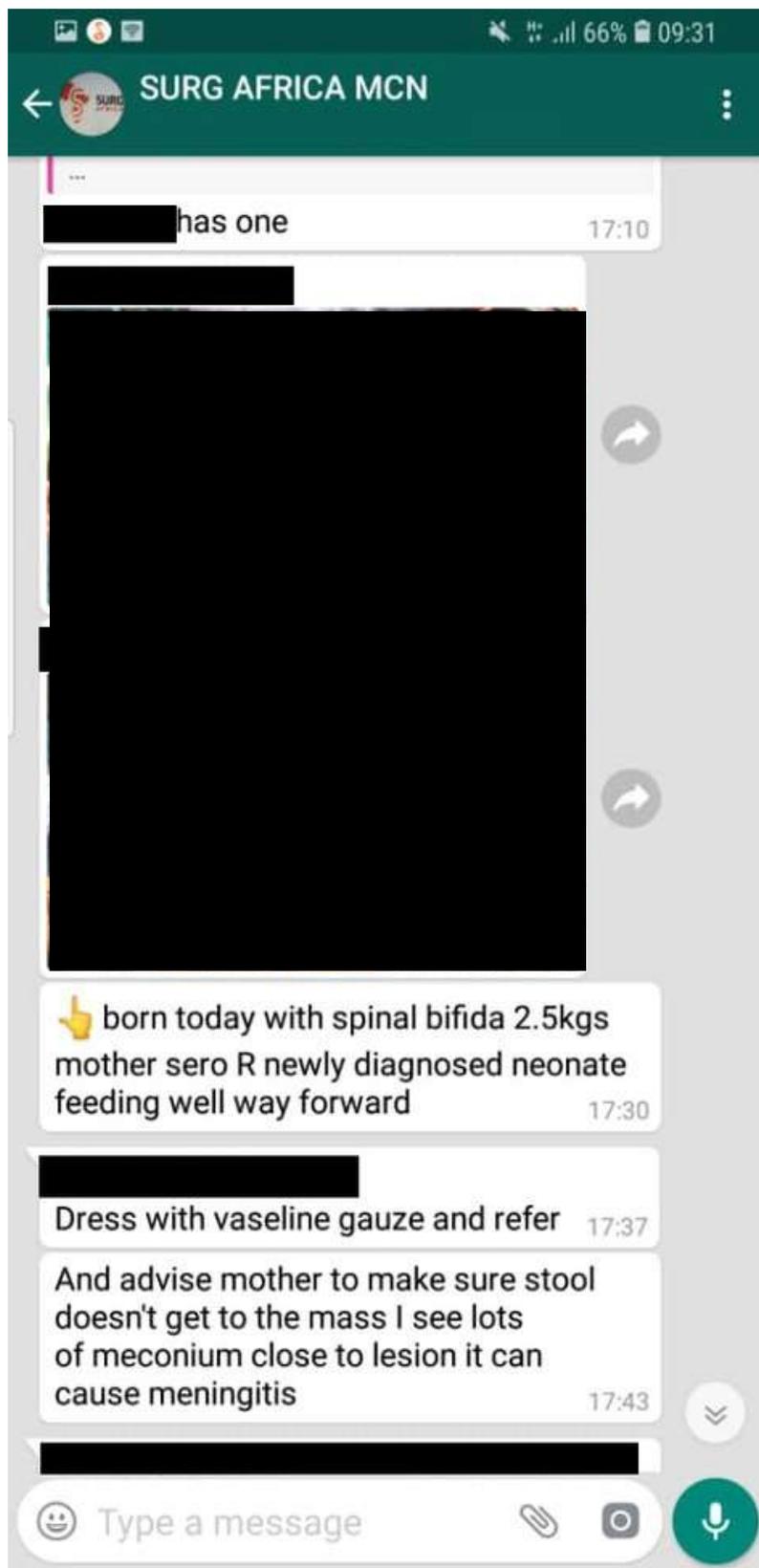
To fill the gap between visits and to support them the project developed a clinical network based on WhatsApp, which is widely used in Malawi and almost free of charge. The application allows users (in this case district hospital and central hospital clinicians) to share text messages as well as photos, videos and audio clips in real time, all of which can be essential to making clinical decisions.

The network was launched in the Southern Region in March 2018 and is managed by the SURG-Africa project coordinator. District medical officers from the ten district hospitals have administrative rights and control access to the WhatsApp network. Each officer was requested to add clinicians involved in surgery. To date, members include about 100 district clinicians and 15 specialists based at Queen Elizabeth and Zomba central hospitals,

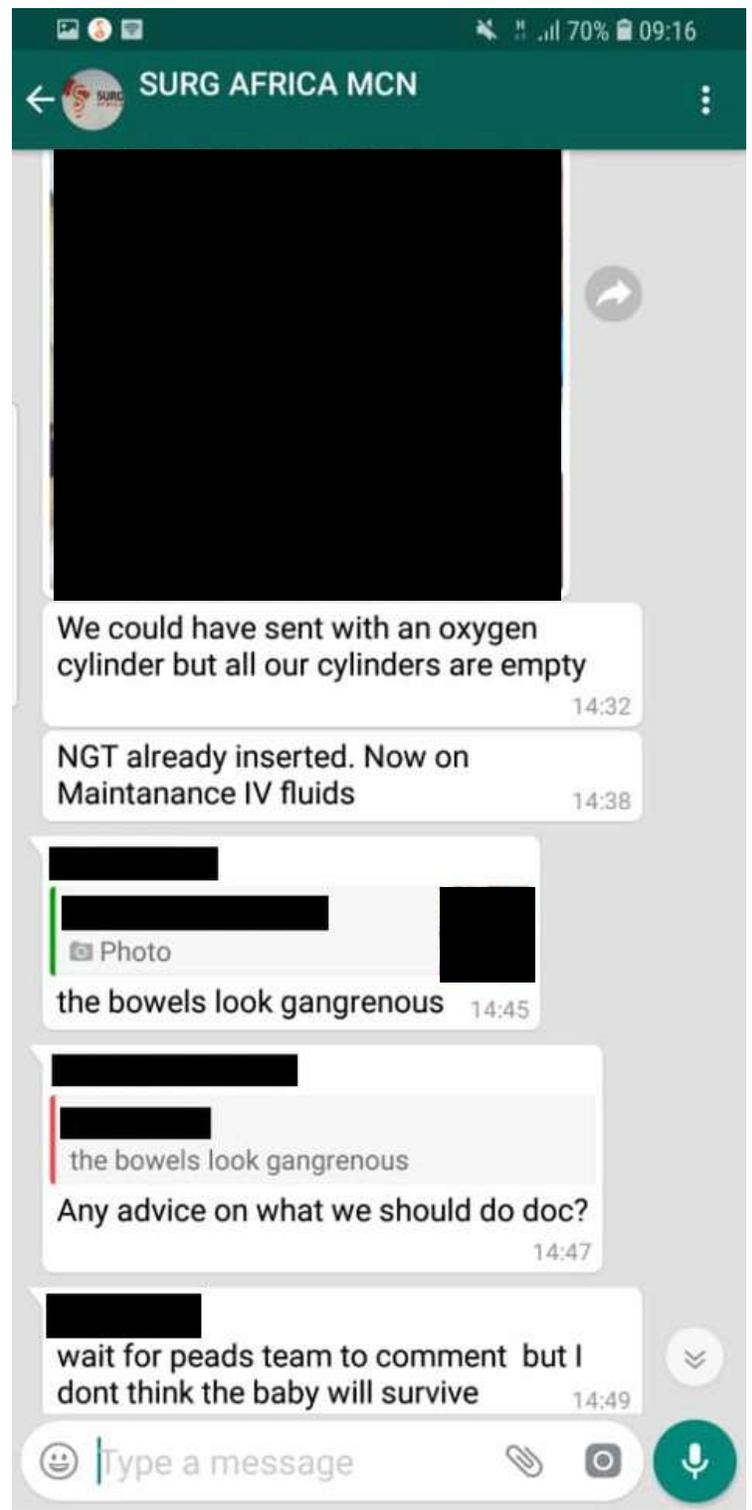
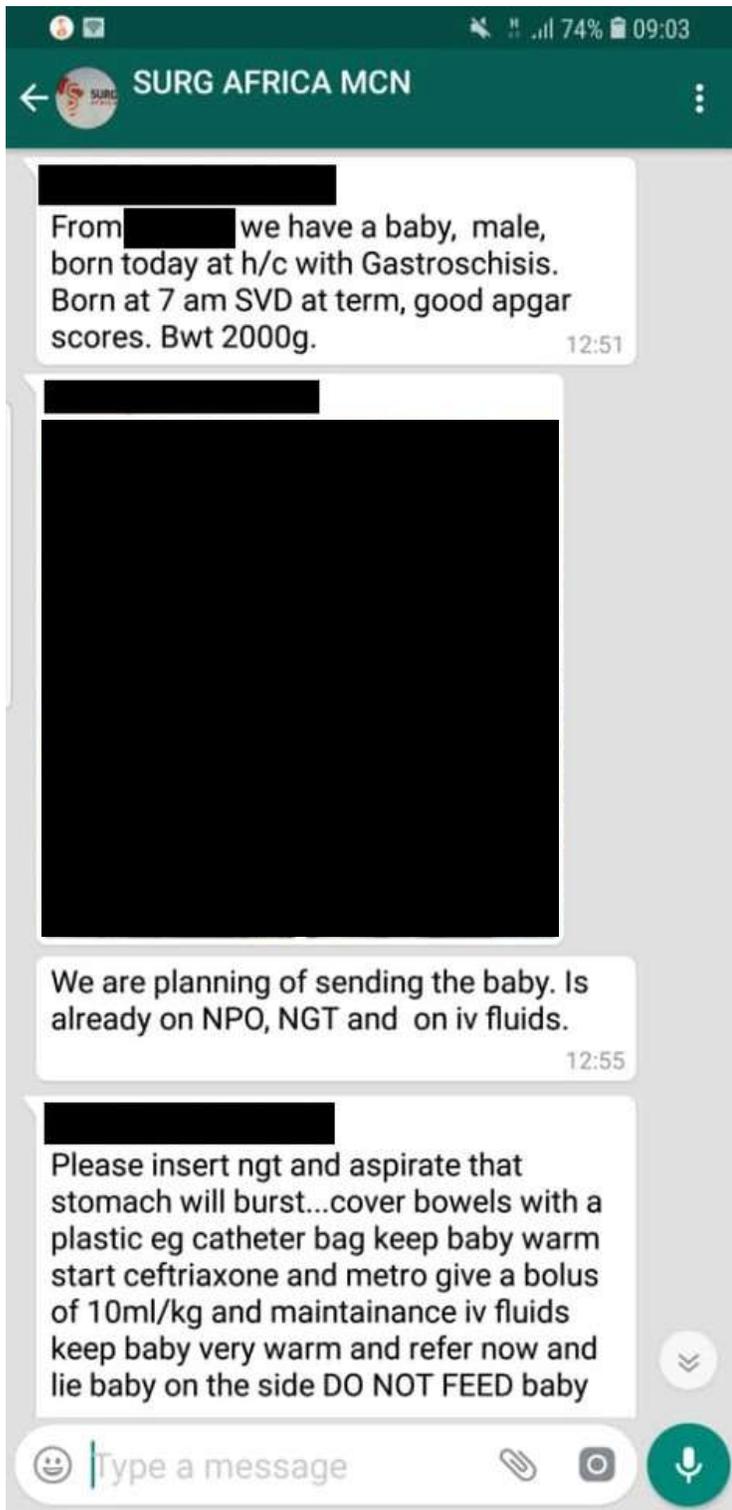


The network facilitates consultations between district clinicians and experts at central level, provides education opportunities and space to exchange the latest medical knowledge, whilst helping to streamline surgical referrals from the district hospitals to central hospitals in Blantyre and Zomba. The network is progressively being integrated into standard practice, particularly in the case of referrals as it is now compulsory for district clinicians to post details of each case in text format, supported by images where necessary, and wait for specialist advice, unless urgency dictates immediate referral, before referring a patient onwards. At the least, a specialist must provide their opinion on the clinical management of the case, but other clinicians participate as required. The consultative process continues until a decision is made on immediate, later or no referral, with clear reasons for the decision. After the case has been treated centrally, feedback is provided to district teams.

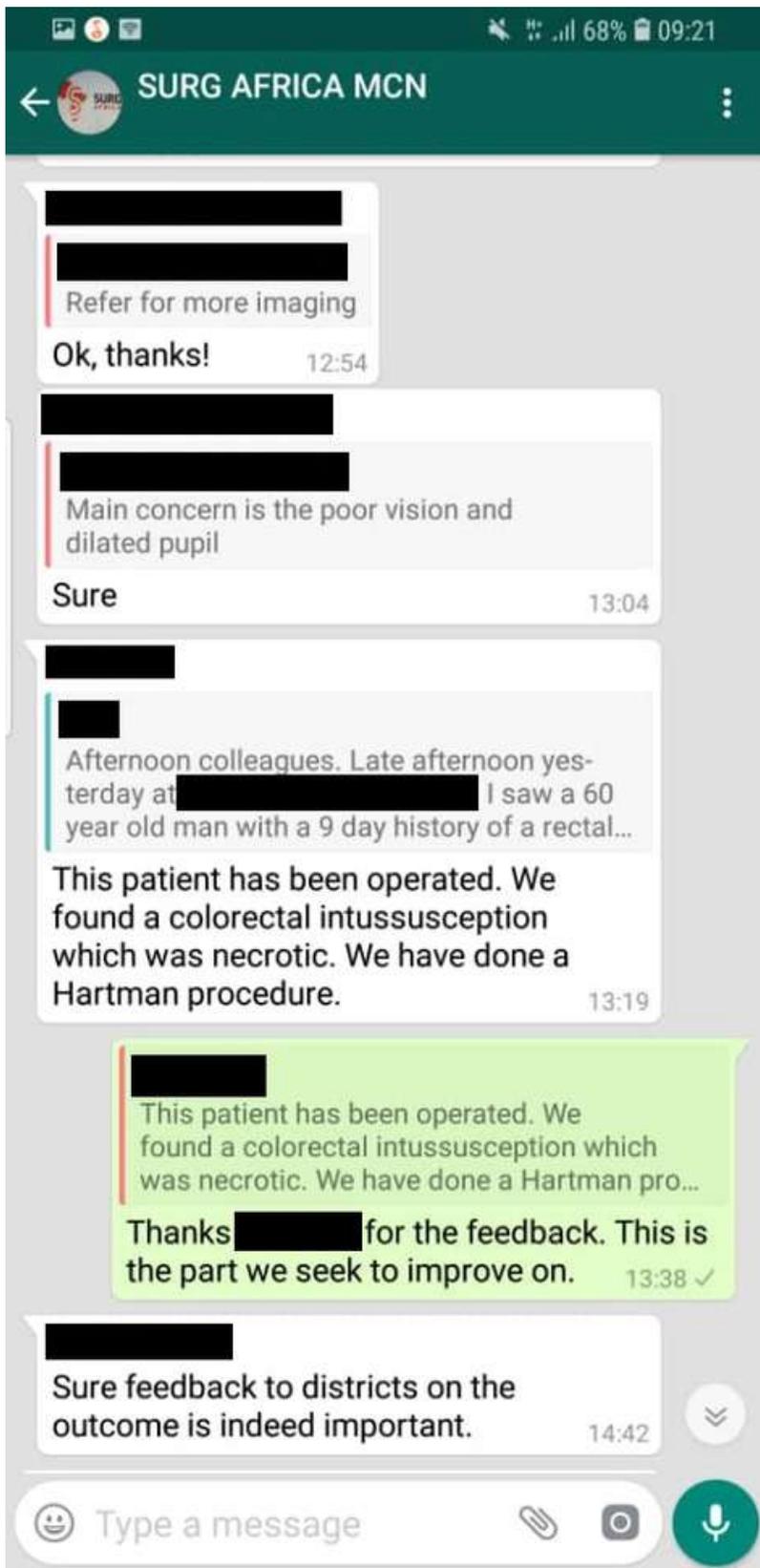
The network has so far been a big success. During the 4-months April to July 2018, a total of 95 surgical cases were consulted on. Over a third of these were managed locally following advice from the specialists, avoiding unnecessary referral. 15% of cases received recommendation for a later referral and 52% resulted in immediate referral. Response rates were excellent, with 78% of requests for advice received a response within 1 hour, and in 68% of cases agreement on clinical management and referral was reached within an hour.



Education is provided during consultation and referral process.



Instructions on cases and managing resources in the district hospitals.



Feedback is provided as routine to district hospitals.

With the scarcity of surgeons and anaesthetists in districts and rural areas, the WhatsApp network has proved to be a feasible way to provide rapid and free specialist surgical opinion to rural populations, when needed. Additionally, advice on the network is usually provided by more than one expert, as soon as the message is seen, which is not common even in normal clinical settings. Another benefit is that the network allows the sharing of images and enables specialists to ask referring clinician more information about the patient, a great advantage over the traditional way of referring patient through a paper-based referral form.

The open discussion of cases on the network and sharing of feedback after treatment provide continuing professional development not only to the clinicians directly involved but to all clinicians in the forum. The advice provided on how to manage a case pre-referral helps in improving case management and also streamlines management of referrals at the central hospital as the patient does not need to wait for other tests once they arrive. As evident from the percentage of referrals avoided or delayed, only appropriate referrals now happen, with significant cost savings implications for patients, their families as well as the wider health system.

Therefore, using WhatsApp groups can improve access to safe surgery for remote population, improve patient care, reduce expenditure on surgery and is a medium to teach health personnel on appropriate management of patients.