

**Gordhim Hospital**  
**Surgical Mission February 2016**



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## **1. Foreword**

This was the second time that a general surgery mission was taking place in Gordhim. This surgical mission focused mostly on patients who suffered from tumours, hernias, hydrocele and goitres. Due to lack of surgeons in this area, many patients had to walk for more than four days by foot due to lack of money for transport, to seek help at Gordhim Hospital. This time it was once again obvious, that especially women and children have no access to money because their husbands lived far away and often had more than one wife. Some patients were already in an advanced stage and an operation was no longer an option. The demand for surgery were really high and more than 300 patients came to seek help at Gordhim Hospital but, because of the limited setting only 200 patients could be screened by the doctors, 74 patients were operated on and over 100 patients received a conservative therapy with medication.

## **2. Acknowledgement**

The process of conducting a surgical mission in Gordhim Hospital was a result of combined efforts and support of various stake holders.

Arkangelo Ali Association (AAA) would like to thank all members of the surgical team from Medhilfe South Sudan Dr. Helge Koetschau, Dr. Stephanie Stegeman and Dr. Diana Joseph for their willingness to come to Gordhim to support the people of South Sudan and perform 74 surgical procedures and for providing additional funding of materials and drugs.

Thanks to the Catholic Church for their hospitality towards the surgical team.

Gordhim Hospital would also like to thank the private donors from Germany who donated money, especially for children, pregnant mothers and for maintaining the existing facilities. With this money Gordhim Hospital was able to offer food, transport money for children and mothers who were not able to walk all the way back to their homes by foot after surgery.

Arkangelo Ali Association would like to further thank the local authorities such as Ministry of Health in NBGS / Aweil East State as well as the Director of County Health Department in Mabil, Isaac Yei and acting Director Valentino Kuan Kuol. Mr. Isaac and Mr. Valentino both always showed care to the issues and challenges we faced at Gordhim Hospital and always offered support to human resources and together with the Matron, to find solutions for challenges.

Furthermore, we would like to thank International Rescue Committee (IRC) namely Marko Adim for all their support especially for the deliveries of additional materials and drugs for the surgical mission. Thanks also goes to the radio station of IRC who did a documentary about the mission.

Gordhim Hospital would like to acknowledge the financial support for conducting surgical missions and the financial support for staff salaries received from Misereor Germany.

Also appreciated are the following staff members of Gordhim who played a big role in conducting the surgical mission.

Gabriel Atem the national certified nurse who was involved in all planing procedure, supported the first screening and registration of patients, preparation of the theatre and work during the mission as an anaesthesia nurse. Angelo Mou, nurse trained by MSF and Teresa Jerano, who also supported the preparation of the theatre and worked as a scrub nurse during the mission. James Garang the assistant pharmacist supported the preparation of drugs and material deliveries. During the mission James Garang took care of the theatre drugs and material store and he was responsible for the sterilization of instruments. The surgical mission was such a success only because of the high commitment of these staff members who often had to work overtime. Furthermore thanks goes to all the staff members who were not mentioned here but were involved in the surgical mission. Their high commitment made the achievement of objectives possible and without restrictions.

### **3. Background**

AAA is an NGO that is specialized in TB and Leprosy and runs 13 different health facilities in 10 states of South Sudan with their main focus on TB and Leprosy as well as many other departments. One of these health facilities is based in Gordhim, Northern Bahr EL Ghazal State. Gordhim Hospital is a TB Hospital, which takes care of about 70 inpatients and over 300 TB patients in Gordhim outpatient's program.

Beside TB program, Gordhim Hospital runs a 24/7 Outpatient Department with the focus on TB, Malaria, Emergencies (e.g. insect bites, injuries, high fever) screening and treatment of different infections. In OPD 80-150 patients are seen on a normal working day. The Maternity Department that is open eight hours a day, six days a week and focuses on antenatal care and immunization of mother and child. Deliveries are offered in a limited number due to lack of national educated staff. As a young nation, South Sudan is one of the poorest in the world. The medical situation from the WHO fact sheet, reflects the current situation. Only 44 percent of the population have access to proper health care. Maternity mortality in South Sudan is the highest worldwide. In the whole country there are only 86 registered (specialized) doctors for over eleven million people. Due to this fact, most hospitals are working only with certified nurses and clinical officers and staff who were trained on the job. Aweil Public State Hospital in Northern Bahr El Ghazal has no trained national surgeons at the moment for a population of over 720.000 people, since all surgeons have been sent abroad for surgical training.

With the financial support of Misereor, which is a German NGO, Arkangelo Ali Association has conducted 8 different kinds of surgical missions from 2008 until 2016. The demand for all kinds of surgeries is high. General surgeries, eye surgeries, reconstructive surgeries and gynaecological surgeries that do not require long term post-operative care or long term drug therapy, can be performed at Gordhim Hospital.

#### 4. Process Surgical Mission

In this report the process of the surgical mission is divided in three: Preparation, implementation and following up.

##### 4.1 Preparation

Based on experiences from the last surgical missions in February and in November 2015, the screening of patients started only two weeks prior to the surgical mission. Those patients were than advised to remain in Aweil East until the mission takes place. This was to ensure that all patients registered for screening are present when the doctors' team arrives. During the screening of the outpatients the Outpatient Department (OPD) staff than registered all patients needing surgery.

Medhilfe South Sudan put their focus on tumours, hernia, hydrocele and goiter surgery. Together with the Medhilfe team, drugs and material lists were developed. The theatre door was repaired, again a new sterilisation hut was built and all needed equipment was maintained. Together with the staff and with the help of some Inpatients a general cleaning of the hospital was done.



After the arrival of the surgical team the doctors together with the staff members of OPD conducted a second screening. During screening the operation schedule for the following days was prepared. Within the 10 day surgical mission, over 200 patients were screened. Some of them had to be sent away due to the limited setting (limited time, limited equipment, limited personnel for post operative care etc.).

A total of 74 patients were chosen for operation. An operation schedule was prepared daily and placed in the theatre and all patients' protocols were filled out. All operations were recorded on the theatre registry.

##### 4.2 Implementation

Some of the patients stayed at Gordhim Hospital for two weeks, receiving proper pre-operative care like daily dressing. Other patients came from afar and stayed some days before the operation

took place in the hospital. Most patients were asked to come on the day of their operation with a carer. The patients had to bring soap, bed sheets, blankets and a note book that was used as a patient's record book. On morning of the operation all patients older than 15 years were screened for HIV after their consent was received, so that in case of an intraoperative injury, HIV post exposure prophylaxis could be applied. All patients who were tested were HIV negative. After showering most of the patients received a single shot antibiotic as prophylaxis, especially due to the hot season, sometimes over 40 degree Celsius, to minimize the risk of infections and adoption of the skin graft. During the operation the theatre staff were taught by the Medhilfe surgeons and the anaesthetist. Post-operative pain therapy was prescribed by the anaesthetist and written on the anaesthesia protocol and in the patient's record book. All operations were recorded in the operation registry book. After the operation the patients were carried to the ward by their carers. After every operation the theatre was cleaned, instruments and operation sheets were washed, packed and sterilized and the next patient was prepared.



After the operations relatives or carer carried the patients to the ward

The post-operative care in the wards was carried out day and night by assistant nurses under the supervision of the matron. First the prescriptions for pain therapy were explained and drugs handed over to the carer. Injections for pain reduction or antibiotics were done by the medical staff. The assistant nurses were always available to monitor the patients. The doctors did a ward round twice a day or when necessary. First dressing and removal of drainage was done by the doctors and further dressings were done by the medical staff.



Daily round ward

The food after surgery was provided by the hospital. During the long term stay of the patient at the hospital the patients got basic foodstuffs contributed with funds from Misereor. The patients contributed fire wood and cooked for themselves. All activities and observations concerning the patients were recorded in the patient's book.

During the surgical mission 74 patients received operations. Every day new patient came to seek help but because of the limited period of the mission, many patients had to be sent away and were advised to come back for the next surgical mission.

The total number of surgeries performed was 74, 21 of which were children between 0-15 yrs. of age, 38 women, 25 men:

- 8 Goitre
- 25 Hernia
- 2 Hydrocele
- 18 Tumorectomie
- 4 cirumcision

- 1 snake bite
- 9 Lipoma
- 5 Cyste
- 2 others

Every day new patients came to seek help, but because of the limited time, patients were sent away with information to come back for the next surgical mission.



#### **4.3 Follow up**

Most patients who were operated on hernia, hydrocele and small tumour removal were discharged between the first and the third post-operative day. Patients who were operated on big tumour removal or goitre stayed up to four days. After discharge, the patients received their patient's book and anaesthesia protocol back. Some of the patients who live close to the hospital were asked to come in after two days for a change of wound dressing as well as a progress check.

This time the doctors only used resorbable stitches, so there was no need for removal. Most of the wounds healed very well. Only a wound of a malnourished child took longer time to heal but, after one week it could be discharge.

The Medhilfe team was on field for a total of nine days, including arrival day and departure day.

The total number of working days was therefore 7 days.

After that the doctors returned back to Germany.



4.4 Examples before and after operation

Tumours



Goitres



## **5. Monitoring and Evaluation of the surgical mission**

The intern monitoring was done concerning the process indicators. The financial monitoring and evaluation of the whole process will be done by Arkangelo Ali Association (AAA) headquarters in Nairobi.

### **Indicator 1: Number of surgical operations done**

Over 200 patients were screened. Approximately half of them needed a surgery but, due to the limited time of the surgical mission only 74 could be operated.

### **Indicator 2: Improved monitoring of patients both pre and post-operative**

The staff received teaching and explanations on how to monitor the pre and post-operative patients.

### **Indicator 3: Proper documentation of all activities**

There were four systems of documentation in place:

Firstly, there was an anaesthesia protocol from the Medhilfe team in place to document the history of the disease, all procedures during operation and anaesthesia.

Secondly, one consent form where the patients received explanations about the operation performance and risks as well as possible complications, the patients and next of kin as a witness, had to sign to give their approval for the operation and that the patient understood the explanations and risks of operation and anaesthesia.

Thirdly, the operation was recorded in the Gordhim operation registry.

Fourthly, the patients had a patient's book, where all observations and prescribed drugs during their stay were documented by the medical staff. After discharge of the patients they were given their books back.

### **Indicator 4: Improved quality of health services**

All operations and after care were performed at a high standard.

### **Indicator 5: Improved services in the theatre**

During the mission there were two local nurses and one volunteer assistant nurse in place. The scrub nurse, the anaesthesia nurse and the assistant nurse were taught by the doctors on the proper performance, procedures and drug management.

### **Indicator 6: Maintenance of existing buildings**

The theatre door was rebuild and painted and again a sterilisation hut was rebuild and equipment maintained.

**Indicator 7: Number of patients identified for reconstructive surgery**

Around 50 percent of the patient were highly stigmatized e.g. patients with goitres, tumours and cyst and the operation helped twofold.

**Indicator 8: Number of surgical cases correctly diagnosed, operated on and followed up**

All operations were correctly diagnosed and well performed.

**Indicator 9: Number of patients correctly anaesthetised by South Sudanese personnel**

Due to lack of medical personnel in South Sudan there was no local anaesthetist available. One South Sudanese anaesthesia nurse performed some of the anaesthesias under the supervision of the German anaesthetist and was taught to use the new anaesthesia machine.

**Indicator 10: Number of surgical operations, preparation of the theatre and sterilization of surgical instruments by South Sudanese nursing personnel**

First under supervision, later independently.

Two local nurses did all the preparation of the theatre almost without supervision. Two assistant nurses were responsible for the sterilization process. All assistant nurses were taught by the Matron of packing of surgical instruments and were able to prepare the instruments for sterilization without supervision after some days.

**Indicator 11: Skilled local personnel capable to carry out minor emergency procedures (e.g. Incision of abscess).**

One national nurse and another nurse are capable of carrying out minor emergency surgical procedures.

## 6. Conclusion

The general surgical mission was again a big success and highly appreciated by the population as well as the authorities in Northern Bahr El Ghazal. All patients who were operated upon and cured will live a life without pain and/ or without stigma and discrimination. The surgical mission showed again that there is high demand for surgery in Northern Bahr El Ghazal especially in general surgery and eye surgery. In spite of the lack of surgeons and anaesthetists in South Sudan, the Ministry of Health should try to send national doctors for training on the job by expatriate surgeons in order for them to get more experience on different surgical fields and to learn and acquire international standards.

For future surgical missions consideration should be given to buying drugs which are available in South Sudan from South Sudan. Other items and materials that aren't available in South Sudan should be purchased from (neighbouring countries, to support the economy in those countries). Items which are not available could then be purchased from Europe, especially after discussions with the surgeons about their needs. Ensuring that the expiry date is as far off as possible is another important issue to be noted.

Often in hospitals there are discussions about financial contributions from the patients in this mission. Experience has found that many of the patients and caretakers especially women with children had no access to money because the husbands lived far and often had more than one wife or worked as a soldier. Many of these patients walked over four days to seek help in Gordhim. For these cases Gordhim Hospital was more than happy to have financial resources to support the children and mothers on their way back home.



Surgical mission team