



Verein CHIRURGEN FÜR AFRIKA c/o Dr. Ralph Lorenz, Setheweg 7, 14089 Berlin

Report of the German SURGEONS FOR AFRICA Team to Rwanda in close collaboration with Operation Hernia and Rwanda Legacy of Hope - February, 26th to March 1st, 2024

1. General Report for all German places



Kigali, whole German team together on March 1st, 2024

The preparations for our mission this year were considerably complicated. The reasons are still incomprehensible to us today. In the fall of 2023, there was an explicit request to extend the special hernia surgery training to two weeks in order to teach even more general practitioners. The Ministry of Health in Rwanda had planned to train a further 200 general practitioners in hernia surgery over the next few years. On the other hand, in December 2023, completely contradictory information was communicated by the Rwandan Ministry of Health, as there was obviously a financing problem after all. Initially, the training was even to be cancelled altogether. However, since our planning was already well advanced, we refrained from doing so. Until the very end, however, it was completely unclear which trainees were taught. Contrary to any compromise proposals, the theoretical training was finally cancelled and was to be carried out on site by the individual teams. All in all, there was considerable resentment on our part, which could not be significantly mitigated in the on-site meetings with the representatives of the Ministry of Health of Rwanda. We are expecting an official excuse for all these complications.

It is appropriate at the outset of this report to establish the fact that the 2024 Hernia Training Programme that was delivered, was a different version of the original training programme, originally planned and agreed by the Ministry of Health.

The **original programme** that the Ministry of Health invited RLOH surgeons to deliver involved the following arms:

1. **Mentoring** of 28 General Practitioners (GP) trained in 2023 in the first week.
2. **Training** of a section of 200 new batch of GPs in the second week.
3. **Formal Lectures and Interactive Session:** All the 28 GPs trained in 2023 would be joined by the new batch of GPs for the important 2-day Lecture and Interactive sessions on essential aspects of Hernia Surgery. This is delivered at a single venue.
4. **Publication of names and contact details of all doctors** to be trained several weeks before the start of the programme.
5. **Pre-training survey of surgical experience** of all the new GPs.



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Modified 2024 Hernia Training Programme

The Ministry of Health run into acknowledged budgetary difficulties and therefore made significant changes to the Training Programme, as outlined below:

1. Mentoring of GPs trained in 2023 was cancelled.
2. The essential Lecture and Interactive sessions delivered at one location was cancelled.
3. Publication of names of doctors to be trained was significantly delayed.
4. Pre-training survey was, as a result delayed.

Planned number of Trainees / Final number of Trainees per hospital

	Gihundwe	Gisenyi	Kabgayi	Rwamagama
Mail information by Reverend Osee 13.02.2024	4	7	5	5
Information by MOH 23.02. 2024	2	3	2	8
Real On-site trainees 26.02. bis 01.03.	2	4	2	2

Summary of Operations in different hospitals with German Team members:

	Gihundwe	Gisenyi/ Rubavu	Kabgayi	Rwamagama	Summary
LICHTENSTEIN	28	11	18	30	87
SHOULDICE	11	24	1	0	36
Other inguinal	7	5	0	0	12
Pediatric Hernias	0	0	0	12	12
Other Hernias	4	4	0	3	11
Other Operations Hydroceles etc.	0	4	0	7	11
Inguinal adult hernia operations	46	40	19	30	135
Summary	50	48	19	52	169

Our mission was once again accompanied by a generous fundraising campaign by SURGEONS FOR AFRICA Organisation, which enabled medical equipment, especially sutures, mesh materials worth over 100,000€ to remain in Rwanda.

All together there were additional costs by the team members and the Organisation SURGEONS FOR AFRICA for flights, cancellations and re-booking of flights to Rwanda with a value of 24.000€.

All team members have additionally used their personal holidays for almost 200 working days.



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2. Gisenyi District Hospital

Team members:

Dr. Ralph Lorenz (Consultant Surgeon)
PD Dr. Joachim Conze (Consultant Surgeon)
Dr. Armin Polzin (Consultant Anaesthetist)
Petra Woelki (Operating Nurse)
Susan Fritzsche (Anaesthetic Nurse)

Trainees (finally):

Dr. Benjamin Kyavulikira
Dr. Daniel Kikuni
Dr. Tite Ikuzwe
Dr. Yvonne Umurerwa





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Mission Report:

On Thursday 22.02., most of the Gisenyi team travelled via Brussels to Kigali. Already on Friday, 23.02., the German team continued their journey to Gisenyi. The four-and-a-half-hour trip ended in Gisenyi in the evening. We were royally accommodated by Rwanda for a week in the Hotel Lake Kivu Serena Hotel.

On Saturday, 24.02., we transported the boxes from the hotel to the neighboring Gisenyi Hotel, visited the operating room, were officially welcomed by the Medical Director Dr. Oreste Tuganeyezu and the Chief Surgeon Dr. Philemon at the Gisenyi Hospital. We were able to prepare and set up our operating room for the coming days. Once again, we decided to share an operating room with a Paravan and keep the second existing operating room free for possible emergency procedures.

The nine large boxes brought along were unpacked and stored, so that no further preparations were necessary.

We spent Sunday in the morning with an impressive church service in the largest Catholic church in Gisenyi's Stella Maris. In the afternoon after the arrival of our anesthesiologist Dr. Armin Polzin, we went on a boat trip on Lake Kivu.

On Monday morning, at 7:45 a.m., we started screening the first patients for the operating room.

After that, we started with a two-hour interactive theoretical training on anatomy, diagnostics, surgical indications and an instructional video about the SHOULDICE technique. After that, we started the surgeries. The trainees were slowly introduced to inguinal hernia operations using the partial step principle. Each of the two surgeons had to teach two of the trainees in turn. The existing previous knowledge varied. Despite the not yet well-rehearsed processes in the organization in the operating room, we operated on a total of 6 patients with 8 inguinal hernias on the first day. In the evening, these patients were followed up, everyone was well and the next patients were screened. There were numerous patients with inguinal hernias on the waiting list.

On Tuesday, 27.02., the surgical procedures were much more tightly organized, so that the number of operations could be increased even further. On the second day, we also started a theoretical training for the four trainees with an instructional video about the LICHTENSTEIN technique and a lecture on the management of complications. On the second day, 10 surgeries were performed on 8 patients. On Tuesday, all other patients were screened for the training week. These were divided over the coming days.

From Wednesday to Friday, the focus was on the operating room and the execution of hernia operations by the trainees under the supervision of the two surgical instructors.

The trainees were increasingly able to operate independently, and the progress could not be overlooked.

After completing the practical training, three of the four trainees were able to perform simple, uncomplicated inguinal hernia surgeries on their own, with only minimal supervision.

A total of 48 surgeries were performed by Team Gisenyi this week. The majority of them are operated on by the trainees partially and almost completely in the course of the process.

During the whole week we did all together 48 operations on 38 patients with the following detailed numbers of procedures:

24 SHOULDICE Repair,

11 LICHTENSTEIN Repair

4 MARCY Repair

1 FABRICIUS Repair



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3 ISRAELSSON Repair
1 PUMP Repair
4 WINKELMANN Procedure

All patients were well after surgery. There were no complications whatsoever.

Our team worked extremely well-rehearsed, everyone helped each other, everyone worked with a lot of initiative and enthusiasm. Dr. Armin Polzin mainly performed spinal anaesthesia for two surgeons at the same time and also found time to train the anesthetic technicians. Our senior operating room nurse Petra Woelki mainly organized the surgical procedures, the sterilization and the provision of sufficient surgical instruments. In addition to providing excellent assistance, our senior anaesthesia nurse Susan Fritsche also took care of the rapid surgical casseroles and organization of patient acquisition. Thus, the two surgeons PD Dr. Joachim Conze and Dr. Ralph Lorenz had enough time to concentrate on the surgical training of the trainees. There was a great team spirit to be felt. We are extremely grateful for the warm welcome at Gisenyi Hospital and the great support of the local team on site. We expressed our gratitude by donating numerous medical consumables.

On Thursday we organized a get-together with a meal in a nice beach restaurant in Gisenyi. We presented each individual trainee with a personal hernia surgical survival package with mesh, sutures and consumables.

On Friday, our team was brought back to Kigali, where the German team came together completely for the first time and spent an evening. A special guest was also Dr. Venuste Nsabimana, Consultant Surgeon at Rwmagama Provincial Hospital, whom we have already trained as a trainer in recent years.

Looking back, we can chalk up the week on site in Gisenyi as a great success. Everyone has been very committed, the trainees have made enormous surgical progress. Nevertheless, this year's preparations were extremely complicated and required a lot of energy.

Above all, the project impresses with its sustainability and deserves to be continued in any case, wherever it may be.

Berlin, March 8th, 2024

Ralph Lorenz



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3. Gihundwe District hospital

Team members:

Herr PD Dr. med. Christoph Paasch (Consultant Surgeon)

Dr. med. Isabell Wieber (Consultant Surgeon)

Frau Jenny Pflügner (Operating Nurse)

Frau Mandy Meyer (Anaesthetic Nurse)

Trainees (finally):

Frau Dr. Bora Astrid

Frau Dr. Nadine Imgabire



Mission Report:

The team arrived in Gihundwe on 23/02 and 25/02. In the late afternoon of 25.02. we drove to the District hospital Gihundwe. We examined the patients of the coming day. The preliminary visit was made possible by an email exchange with the clinic director Dr. Edith. In the evening of the same day, there was a preliminary meeting with Dr. Hilaire and the clinic director Dr. Edith. The meeting took place at the team's accommodation, the Mantis Kivu Marina Bay Hotel. In this conversation, important aspects of the mission could be addressed. The topic was the equipment of the operating room, which had previously been visited by Isabell Wieber and Christoph Paasch on 23.02.

It was requested to provide a diathermy machine, an operating table and a few seats in the common room. In addition, we asked for an adequate number of sterilized instruments, sufficient for four hernia surgical procedures. On the part of the clinic management, we were informed of a number of patients of 69. We came to an agreement to operate on about 10 patients a day. We exchanged phone numbers to get in close contact in case of problems. It was a very pleasant conversation. We felt very welcome. A lot of gratitude was shown to us for the upcoming mission.

On 26.02.2024 our hernia mission started at the District hospital Gihundwe. To our great delight, we were able to find that a diathermy machine, another operating table and some seating were provided. We also took part in the



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morning meeting and were introduced to the clinic staff. The anesthesia and surgical team welcomed us joyfully. We got to know the trainees Dr. Bora Astrid and Dr. Nadine Imgabire, who worked as general *practitioners* in the local hospital. While the first two patients were being prepared for their surgery, the medical team carried out nodule training and a 30-minute hernia training course with the trainees. The focus was on the anatomy of the groin and the Lichtenstein method. In addition, we handed out the evaluation forms.

Both trainees had major weaknesses with regard to knotting by hand. Theoretical knowledge in the field of hernia surgery was hardly available. Unfortunately, Dr. Nadine Imgabire could only speak rudimentary English.

On 26/02 and 27/02 all operations were carried out by our team. The trainees were always at the operating table as 1st assistants. All patients received spinal anesthesia from on-site anesthesiologists. To our great delight, a total of 2 colleagues were assigned to our team for this purpose.

During the procedures, all anatomical structures were repetitively explained and queried. The wound closure and the miraculous opening could be delegated to the trainees as early as the 1st day.

From 28.02. until the end of the mission on 01.03., the trainees learned to carry out the operations independently.

Dr. Bora acted as first surgeon a total of 7 times and Ms. Imgabire 6 times. In 2 cases, both trainees stood alone at the table and assisted each other during the procedures. For this purpose, low-level inguinal hernia findings were selected. Both colleagues had a very good learning curve and were able to improve and demonstrate their skills over the course of time.

At the Gihundwe site, we operated on a total of 45 patients with 50 hernias (3 umbilical hernias, 45 inguinal hernias, and one femoral hernia). A total of 7 times the TIPP procedure was used, 11 times the Shouldice surgery and 29 times the Lichtenstein procedure. The three primary ventral hernias could be treated by means of direct sutures. With the exception of one patient who developed an overflow bladder, no postoperative complications occurred. All individuals were visited both the day before surgery and on the first postoperative day. About 40% of the patients were prisoners.

On 01.03., the team was picked up by a minibus and brought safely to Kigali.

All in all, from our perspective, it was a successful assignment in which, on the one hand, a large number of patients could be surgically sorted and, on the other hand, the teaching assignment was carried out conscientiously.

Negative aspects of the trip are limited to the lack of theoretical knowledge of the trainees in the field of hernia surgery before the start of the course. In the future, pre-arranged intensive courses should take place here, comparable to the hernia mission of 2023.

From our point of view, the renewed participation of the District Hospital Gihundwe in comparable projects can only be expressly recommended.

Yours sincerely,

Christoph Paasch

Toronto, Canada, March 5th, 2024



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4. Rwmamagama Provincial Hospital

Team members:

Dr. Albrecht Frunder (Consultant Surgeon)

Dr. Chiara Tosolini (Consultant Surgeon)

Dr. Evi Koblitz (Consultant Anesthetist)

Jenny Preuß (Operating Nurse)

Diana Wenkebach (Anesthetic Nurse)

Trainees (finally):

Dr. Kanani Dan Kevin

Dr. Usengimana Daniel

Trainees (foreseen):

8 Trainees were on the list



Operated Patients:

27 Adults with 30 hernias

10 children with 22 operations mostly hernias

Performed operations: 52

Team Germany:

The cooperation between the anesthesiological and surgical team was very good. The compatibility was excellent and the competence brought along was good, the expertise of Koblitz and Frunder, allowed to perform surgery on pediatric patients even in condition made difficult by the sometime inadequate instruments and machinery.

The fact that all the team members had previous experience with SFA, as much as the previous collaboration in this context, simplified the adaptation to the situation on site.

Can be improved: communication in advance with the hospital regarding materials to bring and to prepare on site.



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Hospitality on site:

The accommodation in Hotel Saint Agnes was pleasant and comfortable, the distance from the hospital reasonable, so that little time was lost. The food was good and adequate in the quantity. Attention was given not only to provide meals for the team, but also for all the locals co-workers who were involved in the project.

Infrastructure and hospital organization:

The hospital was an established, functioning district clinic, our department was a dismissed operatory block where, with the help of the nurses and anesthesiologic assistants, 3 functioning OR were organized: only in one of them was it possible to perform general anesthesia (only one functioning ventilation machine), in the other two spinal anaesthesia was performed.

We also could arrange a recovery room and a wash- and sterilization room.

Examination of the patients found place in the main surgical ward. No lounge space for staff and trainees was provided. We found good and efficient time management and availability of those responsible on site: being separate from the main operatory block, allowed us to use the ORs without interruption due to the routine activity of the emergency room, as well as some surgeries, so that, over the 5-day course, we could use the facility from 8 am to 5 or 6 am every day,

On the other hand, the dismissed OR was equipped quite poorly (in particular in regard to instruments, light and anaesthesiological machinery).

The medical, nursing and administrative staff, were always available, friendly and helpful. In particular, we were assisted by a very dedicated surgeon, Dr. Venuste Nsabimana, who had also taken part in a "train the trainer" course and performed in advance a very accurate screening, providing a more than sufficient list of patients, and a very efficient and well organized setting for the pre- and postoperative examination.

There was some confusion on the indication: the personnel on site screened not only groin hernias patient, but all types of abdominal hernias. Beside, we could start operating pediatric patients only starting on the third day, probably due to lack of communication between German and local team.

The equipment and instruments were sufficient but not satisfactory: there were enough instruments. The quality, although definitely substandard, was hardly acceptable.

Trainees:

We have worked with two trainees (both registrars in the same department) and two medical students. All spoke English well and the communication was therefore smooth.

The number of trainees was optimal allowing a very good surgical exposure and the establishment of a certain routine. The motivation and commitment of both trainees was very high, the willingness to help each other was also very good, especially the interaction at the table was very effective.

The theoretical knowledge was substandard (probably due to the lack of pre-course theoretical frontal lessons). Surgical skills (tissue and instrument handling, as well as performing knots and sutures) were good, although a little bit raw.

In 5 days the two participants were able to perform respectively 13 and 8 complete Lichtenstein procedures, initially assisted by an expert surgeon, in the last two days the two trainees could operate assisting each other with minimal supervision.

Both trainees are in my opinion capable of mastering groin hernia repairs of moderate difficulty.

Overall, it was fun to work with and within the team, and despite the circumstances, we really enjoyed our work.

We look forward to the next assignment.

Dr. Chiara Tosolini
Erding, March 7th, 2024



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5. Kabgayi Level2-Teaching Hospital

Team members:

Dr. Andreas Weskott (Consultant Surgeon)

Dr. Karl Spitzer (Consultant Surgeon)

Dr. Denisa Frncikowa (Consultant Anesthetist)

Sarah Wieckhorst (Operating Nurse)

Maik Laurisch (Anesthetic Technician)

Trainees (finally):

Dr. Albert Happy Cyanana

Dr. Eric Hakizimana



Mission Report:

We drove to Kabgayi on February 25th without any problems, long traffic jams in Kigali because of the road race. Pastor Osee was standing in front of the hotel at the departure and said that he had tried to call me several times. I apologized, but couldn't find any proof of this on my mobile phone. Reverend Osee promised Karl that he would call him later in the day to inquire how we were doing. Karl didn't get a call.

In Kabgayi, we were dropped off with our five boxes in front of the new construction of the hospital, which opened in January this year. Since obviously no one was informed about our coming, we asked a nurse in white to contact the operating room, which she did. A surgical nurse (Karl has name and telephone number) then took us to the operating theatre and probably knew since Friday that we were coming, but nothing more. We "got" one of the two halls. He didn't know if we could also add a 2nd table, but he wanted to take care of it. We then brought our luggage to the quite nice hotel and had another appointment in the operating room for the afternoon, where we settled in. The atmosphere was very good, everyone tried to help, but our frustration was enormous, because we didn't get any information at all about our possibilities in the upcoming week. Two patients are on the inside, he said, and we could operate on Monday. We visited them afterwards, the ward staff did their best. The man on duty recommended that we come to the meeting at 7 a.m. on Monday.



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On February 26th we showed up at 7 a.m. for this meeting, around 7:30 a.m. a surgeon (traumatology) named Antoine joined us, greeted Karl and me half-heartedly, the other three not at all. He also had no actionable information. The medical director is probably responsible and also there, but he does not know where exactly. The frustration and our helplessness increased! We then went to the operating room and later in the day performed our two quite complex hernia surgeries, assisting each other. In the course of the day, as if out of nowhere, two assistant doctors appeared, who were completing their mandatory training period in the interior and had already performed caesarean sections. Both of them were very interested in working with us as trainees whenever their time inside allowed it. This is on the subject of the two trainees assigned to us on the list, which included a colleague who has not been working in Kabgayi for a long time. Trainee Albert then tells us that nine patients have been registered for us and that we could also get a second operating table in the same room. The mood is rising, restrained! Over the course of the day, we can look at and screen five patients for tomorrow. Supposedly, there are many more patients for us in the nearby prison.

On February 27th, we actually have two tables and can assist the two trainees for the first time, which Karl and I do at the two tables at the same time. However, the changeover times are so long that a table would have been enough with good planning. Surgical nurses or nurses are not made available to us, so that Maik also takes over this function with flying colors from time to time. Due to a lot of anesthesia nurses or trainees, there is irritation in this area, as Denisa makes announcements regarding the anesthesia nurses. The medication is then carried out differently by the anesthesia staff. She will certainly be able to provide more details if there is a need. In the course of the day, we screen the announced nine patients, but only three of them have an inguinal hernia. The others have hydroceles, one has a large umbilical hernia. I would have operated on all the patients, but Karl saw the indication more restrictively, and since he has been with us longer and knows the regimen better, we decided it by mutual agreement. At that time, however, we also believed that we could acquire even more patients. Until the evening rounds, no further patients are added.

On February 28, we will operate on three of the nine screened patients. In between, we are repeatedly introduced to patients that we had rejected yesterday. The communication between the operating theatre and the ward is unsatisfactory. Through Albert, I try to get in touch with the clinic director to talk to him about the misery. Albert suggests telling his boss. Who then wants to call the clinic director. When asked later, Albert's boss also claims to have done this, but the clinic director definitely does not contact me/us. We didn't see or speak to him during our whole stay. I ask for help from our former trainee Patrick, who confidently operates on an incarcerated inguinal hernia in Liechtenstein in "our" hall. He has a waiting list of hernia patients until April. For the 29th and 30th of February he wants to try to give us enough patients. He can only reach five patients who can also come tomorrow.

On February 29th, we operate on Patrick's five patients. Again, we assist all hernia trainees, who prove to be very skilled and generally very committed and friendly. Most of the time they can only come to us in the late morning. This is where the sluggish course of our program becomes an advantage, at least for the trainees. In a good atmosphere, we are in the hospital for 12 hours, as we have to take care of a lot of things ourselves. We invited a non-sterile surgical nurse to our hotel for dinner. Unfortunately, the trainees always have to visit their families with children in the evenings, as their partners are also involved in their work.

On March 1st, we will be able to operate on three of Patrick's patients again. Again, Karl and I are assisting. We distribute the materials we have brought with us to the trainees and Patrick, who promise to handle them responsibly and carefully, especially with the nets. We part ways with all employees in a very warm, loving



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atmosphere. I think we made a very good impression. There was not a single moment of gloomy mood. We have visited all patients several times and have not seen any complications. All patients in the first four days were discharged.

Andreas Weskott for the German Kabgayi Team
Sveden , March 15 th , 2024