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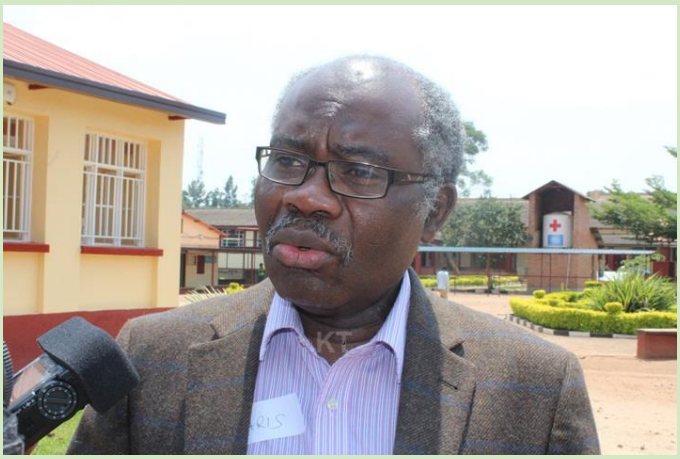
REPORT FROM RWANDA LEGACY OF HOPE 2016

Reverend Osee Ntavuka
BA/M.T.S and Founder & Legal-Representative
of Rwanda-Legacy of Hope (Umurage W'Ibyiringiro)



Chris Oppong FRCS FRCS (Gen Surg) Consultant Surgeon
Medical Director, Rwanda Legacy of Hope
Chairman, Operation Hernia

M. D Dr Ralph Lorenz Consultant Surgeon
Deputy Medical Director of Rwanda Legacy of Hope
Director of Surgeons for Afrika (SFA

Reverend Osee Ntavuka, Director and Legal Representative, Rwanda Legacy of Hope
Chris Oppong Consultant Surgeon Medical Director Legacy of Hope Chairman, Operation Hernia.
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1. INTRODUCTION

Rwanda-Legacy of Hope has been operating in Rwanda since April 2011. It was founded by Diaspora genocide survivor Rwandan born Reverend Osee Ntavuka.

Rwanda Legacy of Hope is a registered Christian Organisation based in Rwanda and the UK which provides support through a Social Welfare Programme in Rwanda aimed at improving living conditions by providing health care and better educational and training opportunities.

It has been 22 years since Rwanda was bathed in the blood of the genocide perpetrated against Tutsi in Rwanda 1994. With 1 million dead in 100 days, half a million survivors, over a quarter million raped, 75 000 children orphaned, 20 000 children of rape born infected with Aids from their militia fathers who infected their mothers using rape as a weapon of war.

Aims

HEALTH

- To provide specialist volunteer Consultant surgeons, Consultant Anaesthetists and nurses to support specialist service provision and surgical training in Rwanda
- To provide appropriate medical equipment
- To provide basic health insurance
- The promotion of health projects for prevention as well as health care actions
- Establish links between overseas medical schools and Rwanda University of Medical Studies

EDUCATION

- To provide volunteer English teachers to primary and secondary schools providing support and guidance in methodology /pedagogy
- Establish a link between primary /secondary schools in Rwanda and Overseas
- The promotion of technical school projects for children and young people.
- The promotion of projects giving access to new information technology and Communication (NTIC)
- To provide computer equipment and study books in English
- The promotion of recreation and sporting activities to improve social cohesion and reduce the risk of anti-social behaviour among young people and the provision of sports kit/equipment

SOCIAL INCLUSION

- The initiation of small scale and large scale income generating projects for women
- The establishment of social centres where different groups can meet for conferences, retreats, etc.

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REPORT FROM RWANDA LEGACY OF HOPE / OPERATION HERNIA/ PLASTIC SURGERY HUMANITARIAN MISSION TO RWANDA FEBRUARY4-13, 2016

Meeting between Hon. Minister of Health Dr Agnes BINAGWAHO, Pastor Osee NTAVUKA Legal Representative of Rwanda Legacy of Hope and Dr. Theophile DUSHIME Director General of Clinical and Public Health

Reverend Osee Ntavuka, Founder and Legal Representative of Rwanda Legacy Hope had a meeting with Hon. Minister of Health Dr Agnes BINAGWAHO and Dr Theophile Dushime, Director General of Clinical and Public health Services Ministry of Health-Rwanda on the 28th September 2015. The meeting was to discuss the partnership between the Ministry of Health and Rwanda Legacy of Hope in establishing the First Hernia training centre in Rwanda.

Rwanda Legacy of Hope has Established Training Centre for Hernia Repair

Philbert Muhire, MD. Director/Rwamagana Provincial Hospital

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First Hernia Workshop at Rwamagana Hospital

The highlight of this 2016 mission is the significant shift from service provision to Training. We organised a first successful Hernia Workshop to train 13 local doctors. Details of the workshop will be provided later.

2. PARTNERS AND TEAM

Rwanda Legacy of Hope has been delivering humanitarian service to Rwanda since 2012. This is the report of the 4th Humanitarian mission to Rwanda. Rwanda Legacy of Hope (RLH) is partnered by Operation Hernia (OH). The Operation Hernia team comprises a UK team and a Germany Team drawn from "Surgeons for Africa" (SFA), a medical charity registered in Germany. The leader of the Germany team, Ralph Lorenz is a Consultant surgeon and an Ambassador of Operation Hernia in Germany. Operation Hernia (www.operationhernia.org.uk) is a UK registered medical charity with a global outreach. We have treated over 6000 hernia patients and trained local doctors worldwide through the sacrificial aid of a worldwide corps of dedicated partners

The team comprised 10 doctors and nurses from UK and 27 from Germany. The main mission ran from February 8 to February 12, 2016. This was preceded by a Hernia Workshop which is a first in Rwanda.

UK Team (Led by Chris Oppong)
Surgeons: Chris Oppong (Lead), NALA Sivarasingham, David Sedgewick, Antony Fitton, Akira WibergAnaesthetists: Peter Stoddard, Ian Geraghty, Lorenzo Dimpel
Nurses: Della Ball and Ruth Ngwata

Administration Team: Rev Osee & Louise Ntavuka, Andy Bennett, Regis Tuyisenge, Muriel Godin, Eden Mudimu

Germany Team (Led by Ralph Lorenz)
Surgeons: Ralph Lorenz (Lead), Karl Spitzer, Jens Heidel, Christine Kosch, Stefan Knaut, Atingwa Tasi, Albrecht Frunder, OliverStumpf
Anaesthetists: Petra Wölkerling; Evelyn Koblitz, Maral Miller, Carmen Jäger
Nurses: Heike Herget, Sandra Chambilla-Diaz, Peggy Grassmann
Anaesthetic Assistants: Caroline Dauksch, Markus Keppler, Heike Herget, Martin Ahlburg

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Chris Oppong Consultant Surgeon Medical Director Legacy of Hope Chairman, Operation Hernia.
Ralph Lorenz, Consultant Surgeon. Deputy Medical Director, Rwanda Legacy of Hope. Director of Surgeons for Africa

A. **In this document, reference to OPERATION HERNIA will imply the UK team and the Germany team drawn from SURGEONS FOR AFRICA.**
B. **RWANDA LEGACY OF HOPE will imply ALL PARTNERS.**

3. RWANDA MINISTRY OF HEALTH

The 2016 Mission marks formalisation of the already existing partnership between the Rwandan Ministry of Health (MOH) and Rwanda Legacy of Hope (RLH). The MOH has helped tremendously with past missions. In 2016, however, the Minister of Health **Hon Dr Agnes Binagwaho** and Director General of Clinical and Public Health Services **Dr Theophile Dunshime** agreed on a Memorandum of Understanding and duly provided the mission exceptional logistical support and guidance. RLH is profoundly grateful. We hope the support of the mission will continue in the coming years.

4. PLANNING COMMITTEE

This mission was planned by an informal planning committee made up of Dr Theophile Dushime, Rev Osee Ntavuka, and Dr George Ntakiyiruta, head of department of Surgery at CHUK and Chris Oppong, Medical Director of RLOH. Further support was given by Ralph Lorenz, member of Operation Hernia but also Director of Surgeons for Africa and Deputy Medical Director of RLH.

5. SCOPE OF MISSION

The main thrust of RLH mission continues to be General Surgery, specifically service delivery and training in Hernia Surgery. In 2014 and 2016, however, we have expanded the scope of service and training to include the specialty of Plastic Surgery. We therefore had a Plastics Surgery team comprising Mr Antony Fitton, Consultant Plastics Surgeon and Mr Akira Wiberg, a Senior Plastics Surgical Registrar. In 2017 this will be expanded to include Ear Nose and Throat (ENT) Surgery and possibly, Orthopaedics.

6. BURDEN OF HERNIA DISEASE IN RWANDA (Vital Repeat from 2014)

Hernias are more common in Rwanda than is commonly thought. In fact estimated burden (prevalence) of hernias in Rwanda is 5.78%[3]. This compares with 5.36% in Tanzania[1] and 3.15% in Ghana in West Africa.[2] Repair of Hernias with Mesh (Lichtenstein) has become the standard in high income countries. In low resourced countries, high tension, sutured repair is standard because of cost of brand mesh and lack of skill. Resultant high recurrence rate increases total cost of treatment of hernias. Mesh repair of hernias averts significant number of disability adjusted life years (DALY)[4].

7. HOSPITALS

The following 7 hospitals and teams participated in the 2016 mission:

Table 1 Participating Hospitals and Teams

	HOSPITAL	TEAM
1	CHK ,Kigali	Antony Fitton, Akira Wiberg, Lorenzo Dimpel
2	Rwamagana Hospital	Ralph Lorenz, Albrecht Frunder Carmen Jäger, Heike Herget, Sandra Chambilla-Diaz
3	Nyamata Hospital	Karl Spitzer, Christine Kosch, Petra Wölkerling, Caroline Dauksch
4	Gahini Hospital	Chris Oppong, Peter Stoddart, Nala Siva, Della Ball
5	Kirinda Hospital	Jens Heidel, Stefan Knaut, Evelyn Koblitz, Lisa Lambrecht, Markus Keppler
6	Remera-Rukoma Hospital	David Sedgewick, Ian Geraghty, Ruth Ngwata
7	KIgeme Hospital	Oliver Stumpf, Atingwa Tasi and Maral Miller, Peggy Grassmann, Martin Ahlburg

8. PATIENT RECRUITMENT

Recruitment was organised by the various hospitals. Most of the hospitals mounted an enthusiastic programme which resulted in the recruitment of the required number of patients. Some hospitals were so effective in their programme, they managed to recruit more than was required. We commend these hospitals. Some other hospital were not so effective in recruiting patients. The time of the medical team was therefore not utilised to the maximum. Dr Theophile Dunshime was particularly very instrumental in motivating hospital medical and administration directors. Our gratitude also goes to Dr Esperance, the Medical Director of the Presbyterian Hospitals.

9. TRAVEL

All team members arranged their flights and associated costs. Large quantities of equipment were donated Rwandan hospitals through RLH by both the UK and Germany teams. We are grateful to the MOH for waiving custom duties. In spite of this generous gesture we had some very difficult times clearing equipment from the airport.

10. ACCOMMODATION

We are very grateful to the Ministry of Health for providing us with ***excellent accommodation*** at the MERIDIAN HOTEL during our stay at Kigali before moving out to the district hospitals and on our return. This and other initiatives taken by the MOH is eloquent evidence of their commitment to this project. On previous missions, RLH members have arranged accommodation in Kigali ourselves. Accommodation and meals in the various hospitals have always been provided by the hospitals. We are grateful for the hospitality received.

11. MEDICAL and NURSING REGISTRATION

We are profoundly grateful to the MOH for arranging our medical registration since 2012. This has always been a seamless process. This year, however, there was a hitch which was resolved by the MOH for which we are very grateful. Unfortunately, it resulted in loss of activity which affected service delivery and training. Notification for nursing registration, which is a new requirement for 2016, was delayed. RLOH will collaborate with MOH to institute appropriate measures to prevent a recurrence.

12. EQUIPMENT DONATED BY RWANDA LEGACY OF HOPE TO RWANDAN HOSPITALS

Every year since 2012, RLOH have generously donated essential equipment to Rwandan Hospitals. The donations include Diathermy machines, Sets of surgical instruments, Sutures, surgical gowns, surgical drapes and Anaesthetic monitors. In 2013, RLOH installed 2 new air conditioners in theatres at Remera-Rukoma Hospital.

In 2016, equipment worth over **62,000 EUROS** were donated by UK and Germany partners to Rwandan Hospitals. The ZITADELLE SPANDAU ROTARY CLUB in Berlin, Germany donated to Surgeons for Africa a massive **50, 000 EUROS.** The UK team benefited from another generous donation of **£10,000** (12,000 EUROS) from THE HERROD FOUNDATION based in SWITZERLAND. The donation was delivered through their UK representative Mr Michael Jones. The essential major equipment donated are listed below in Table 2

Table 2: Donated Equipment

	ITEM	QUANTITY
1	Operation Table	1
2	Mobile Operating Lamps	6
3	Diathermy Machines	6
4	Anaesthetic Monitors	7
5	Capnographs	8
6	Little Sister Autoclave	1
7	Sets of Hernia Surgical Instruments	8
8	Oximeters (Retained by RLOH to be used on future missions)	4
9	Reusable Surgical Drapes	120

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13. TRAINING OF RWANDAN DOCTORS

This has been the hallmark of the 2016 mission: We have always trained local surgeons during our missions. For example in 2014, nine surgeons were taken through hand on training at Gahini hospital and given certificates ON COMPLETION OF TRAINING Similar training took place in other hospitals as recorded in the 2014 report. In 2016, however, we organised a first HERNIA WORKSHOP in the planned Training Centre at Rwamagana Hospital.

CPD Registration

This training programme was recognised by the Rwandan Medical Council for CPD points. Dr George Ntakiyiruta organised the registration for CPD points. RLOH surgeons are registered with the government as CPD providers.

Dr Ntakiyiruta Georges, MMed, FCSECSA
Department of Surgery School of
Medicine-College of Medicine
and Health Sciences University of Rwanda

M. D Dr Ralph Lorenz Consultant Surgeon Deputy
Medical Director of Rwanda Legacy of Hope

Chris Oppong FRCS FRCS (Gen Surg) Consultant Surgeon
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RWANDA MEDICAL AND DENTAL COUNCIL

P.O Box: 7496 KIGALI, RWANDA

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E-mail: info@rmdc.rw

TEL: +250788388452/3024

February 10th, 2016

RWANDA LEGACY OF HOPE
CPD Provider Number: R0078/2014

RE: CPD COURSE ACCREDITATION

Dear Sir,

Reference is made to your application dated February 5th, 2016 applying for the accreditation for **"HERNIA WORKSHOP"** practical training planned from February 5th, 2016 to February 12th,2016 **at Rwamagana, Gahini and Nyamata Hospitals;**

The Rwanda Medical and Dental Council/CPD Coordinating Office have pleasure to inform you that your application has been successful and both Trainees and Trainers shall be awarded **CPD credits** as follows:

Dates	Category	Topic	CPD Credits	CPD Provider Number
5/2-12/2/2016	I	Hernia workshop	35 CPD Credits (5 per day)	R0078/2014

Sincerely,

Thadee VUGUZIGA, MSC, MPH
CPD Executive Secretary & Coordinator
CPD Program/Rwanda Medical and Dental Council

Cc: -Chairman of CPD Coordination Committee

Trainees receiving certificates

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Training Centre

The single most important achievement of the 2016 is the initial equipping of Rwamagana Hospital as a training centre. A theatre at the hospital was equipped with a new Theatre Table, Mobile Theatre lamp, a Diathermy machine, Monitor and Capnograph. This provides vital infrastructure for the establishment of a very well equipped theatre which will be used at various times in a year to train local surgeons in general surgery and other surgical specialties. Our gratitude, once again goes to the ZITADELLE SPANDAU ROTARY CLUB in Berlin, Germany, whose generous donation made this development possible and to Surgeons for Africa for applying for the donation. The centre will be used throughout a year for training in all specialties. ***The next mission to the centre is planned for October 2016 and will be led by Mr Karl Moser, Consultant Surgeon from Germany***

First Hernia Workshop

13 local doctors registered for a Hernia workshop at Rwamagana Provincial Hospital. The hospital authorities refurbished a seminar room with appropriate projection facilities. Lectures were delivered on various aspects of hernia surgery. Participants were then given a demonstration in theatre on hernia surgery. The faculty included the following surgeons: - Chris Oppong, UK, Ralph Lorenz, Germany, Dr George Ntakiyiruta, CHK and David Sedgewick UK. The medical director of Rwamagana Hospital Dr Philbert Muhire and his assistant Dr Madeleine Mukeshimana should be congratulated for organising a successful the 2 day workshop. Formal feedback was obtained from all the participants as published in Table 3

Feedback from Participants

The feedback from the participants was exceptional. All the sessions were scored as either good, very good or excellent. This is a massive endorsement of the workshop. We hope to make this an annual course with appropriate improvements to help produce a core of district hospital doctors who are appropriately trained in hernia surgery.

Table 3 Feedback

TOPIC	POOR %	AVERAGE %	GOOD %	V GOOD %	EXCELLENT %
Epidemiology	0	0	33	33	33
Anatomy	0	0	9	45.5	45.5
Evidence for Mesh Repair	0	0	0	75	25
How to do a Mesh Repair	0	0	30.8	30.8	38.4
Video on Mesh Repair	0	0	0	69.2	30.8
Non Mesh Repair	0	0	30.7	38.6	30.7
How to do Mesh Repair	0	0	0	50	50

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Survey of Surgical Skills of Participants

The survey summary shows that most of the participants had had some experience of hernia surgery although more than half of the participants had no personal experience of hernia surgery. Two doctors joined at Gahini who had not participated in the workshop

Table 4 Surgical Skills of Participants

NAME OF PARTICIPANT	HOSP	YEAR OF GRADUATION	YEARS OF PRACTICE	C/SECTION	HERNIA REPAIR AS ASSISTANT	HERNIA REPAIR AS SURGEON	ABSCESS	LUMPS
ALICE NIRAGIRE	RWAMAGANA	2009	7	210	120	32	67	43
NDAGIMANA CHRYSOSTOME	RWAMAGANA	1992	24	3000	400	1500	4500	5000
KOMBI GHISLAIN	KIZIGURO	2006	10	1200	60	160	100	100
CLEMENT MBUYI	KIZIGURO	2014	2	100	30	5	45	50
EMERY NIMUBONA	NYAGATARE	2014	2	221	2	0	10	0
PATRICK GATUTSI	GAHINI	2015	1	20	4	0	10	0
PROPER DUSABE	NYAGATARE	2014	2	200	5	0	25	0
INAKANEZO	RUTONGA	2014	2	15	5	0	1	0
ALEX LOLANUOYE	NYAMATA	2007	9	1340	40	186	90	320
JACKSON KWIZERA	KIGEME	2015	6	25	10	0	4	1
PAUL ESANGULA UKUDI	REMERA	2005	11	1780	10	25	40	32
EMILE ABAMANA	REMERA	2014	2	100	2	0	20	12
BUKERA JEAN PAUL	KIRINDA	2011	5	60	50	0	10	5
NWANI KING RUCIANBWA	NGARANA	2011	5	300	25	20	5	10
EMMANUEL BIMENYIMANA	GAHINI	2014	2	250	40	3	10	8
MEDIAN			**5**	**210**	**25**	**3**	**20**	**10**

Hands on Hernia Surgery Training

The 13 participants who attended the workshop and two other local doctors were taken back to the district hospitals and provided one to one hands on training in hernia surgery. 7 out of the 15 trainees had no experience of hernia repair as the primary surgeon. Because the training was limited to less than a week (because of unplanned cessation of activity due to registration difficulties) these 7 doctors would not have had an effective hand on training. The format adopted was as follows:-

1. Each trainee would assist a Consultant Surgeon perform one or more hernia operations
2. Trainee would then be assisted by Consultant to perform procedure in at least 2 cases.
3. Trainee would operate independently assisted by another trainee and supervised by Consultant.

The trainees assigned to Nyamata, Kigeme and Kirinda were unable to benefit from the training provided. At Gahini and at Rwamagana Hospitals, however, at the end of the week, 6 out of 8 trainees were certified as competent enough to perform a hernia repair with mesh independently.

Number of Local Doctors Trained

Table 5

HOSPITAL	NO OF DOCTORS ATTENDING	NO OF DOCTORS QUALIFYING TO BE TRAINED	DOCTORS TRAINED TO COMPETENCE
GAHINI	5	3	2
REMERA	2	0	0
NYAMATA	2	2	Uncertain
KIRINDA	1	1	Uncertain
RWAMAGANA	4	4	4
KIGEME	1	1	Uncertain
TOTAL	**15**	**11**	**6**

Follow Up

I have followed up the 2 certified doctors trained at Gahini hospital. Over the 10 weeks since they had their training, they have performed 11 inguinal hernia mesh repairs successfully in their district hospitals with no immediate or short term complications. The mesh was provided free of charge to the doctors. They will continue to be monitored. They will keep a log book which will be emailed to me at 3 monthly intervals for assessment. They have access to advice if required. What we should establish is local supervision by a local Educational / Clinical supervisor. They will in turn be able to train other local doctors.

14. LOW COST (AFFORDABLE) MESH

RLOH surgeons use low cost, affordable mesh. Operation Hernia has used this mesh in developing countries for 10 years safely. We have published laboratory work to confirm its microbiological and tensile strength characteristics are comparable to that of brand, more expensive mesh[5]. There is ample published data, including a recent prospective randomised control trial to confirm its safety and comparable short term and long term outcome[6,7,8].

15. RLH NURSES AND ANAESTHETIC ASSISTANTS

I would like to highlight the invaluable work done by our nurses and anaesthetic assistants. The success of the mission is underpinned by the "silent" but efficient and indispensable work they do in theatres and with patients on the wards. The education provided to theatre nurses is essential. Ruth Ngwata, nursing manager from UK gave a lecture to nurses at Nyamata and Remera-Rukoma Hospitals on end of life care. It was well received. Della Ball, theatre sister from UK was in charge of ensuring the WHO safety protocol was adhered to. She has planned formal teaching sessions for Rwandan Theatre Nurses.

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16. CLINICAL OUTCOME

A grand total of **155 operations** were performed in the 6 hospitals that offered service and training in hernia surgery.

145 of these operations performed on patients with hernias. I am pleased to record only one significant complication which is discussed below. 50% of the hernia repairs were performed with mesh. The other half were performed without mesh. The majority of non-mesh operations were in children under the age of 15 years, whose hernias are NOT repaired with mesh. The non-mesh procedure in adults were mostly Shouldice Operations.

DETAILS OF GENERAL SURGICAL CASES

Table 6

HOSPITAL	NO OF CASES	MESH HERNIA REPAIR (ADULTS)	NON MESH HERNIA REPAIR (INC CHILDREN)	OTHER PROCEDURES
GAHINI	39	16	20	3
REMERA	14	8	6	0
NYAMATA	21	12	7	2
KIRINDI	24	5	18	1
RWAMAGANA	39	20	18	1
KIGEME	18	9	6	3
TOTAL	**155**	**70**	**75**	**10**






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PAEDIATRIC CASES

A third **(32%)** of all the cases done were in children. Most of the children were treated at Gahini Hospital, where we had a dedicated Paediatric Anaesthetist and the recruitment of patients was, as a result, focused on children with hernias. ***We therefore made good the promise we made in the 2014 report to provide better Paediatric support in subsequent missions***. We will hope to continue to offer children specialist Paediatric care in appropriately equipped hospitals.

Table 7 Paediatric Cases

HOSPITAL	NO OF CASES	NO OF CHILDREN <15YRS	% OF CHILDREN <15 YRS
GAHINI	39	20	61
REMERA	14	8	57
NYAMATA	21	7	33
KIRINDI	24	11	45.8
RWAMAGANA	39	1	2.7
KIGEME	18	2	11
TOTAL	**155**	**49**	**32**

17. COMPLICATIONS

Only 1 significant complication was recorded.

COMPLICATION	HOSPITAL	TREATMENT	OUTCOME
1.Hypotensive Shock	Gahini	Treated successfully	**Discharged. Well**

Clinical Details and Management of Complications

A man of 70 underwent a hernia repair under spinal anaesthesia. The anaesthesia was successfully performed by a local anaesthetist. Before his operation started, he became severely hypotensive with sensorium changes. He was successfully resuscitated with the help of Consultant anaesthetist. Patient later had a successful hernia repair. This complication underlined the inadequacy of the theatres in dealing with anaesthetic emergency.

18. PLASTIC SURGERY CASES

Summary Report of Mission to Rwanda

Operation Hernia/Rwanda Mission of Hope
Plastic Surgery Attachment CHUK Hospital, Kigali

Antony R Fitton (Consultant)
Lorenzo Dimpel (Consultant)
Akira Wiberg (Surgeon)

Schedule

Leave Plymouth	16:00 05/02/2016
Depart London Heathrow	06:50 06/02/2016
Arrive Kigali	21:40 06/02/2016
Briefing meeting form Operation Hernia Director	14:00 07/02/2016
Meeting Surgeon from CHUK	18:00 07/02/2016
Planning Meeting, Ward Round and Out-patient review and selection of cases	07:30 08/02/2016
4 Days of Scheduled Surgery / Teaching	09/02/2016 to 12/02/2016
Day trip to Akagera National Park	13/02/2016
Depart Kigali	22:55 14/02/2016
Arrive London Heathrow	10:05 15/02/2016
Arrive Plymouth	17:00 15/02/2016

It was a privilege to be invited to the Operation Hernia/Rwanda Mission of Hope in February 2016. This was the first time a UK Plastic Surgeon had been part of an Operation Hernia Mission. An earlier visit by a German Plastic Surgeon, Michael Payne, had been met with mixed success. The decision to place our team with a CHUK Surgeon in Kigali was predicated in the hope that more complex reconstruction would be undertaken in collaboration with the designated surgeon who had specialist interest in Burn and Reconstructive Surgery.

Faustin Ntirenganya is a General Surgeon at CHUK and a lecturer at the National University of Rwanda.. He now leads the burn and reconstructive service at CHU Kigali.

Faustin had made arrangements ahead of the mission. We were introduced to 40 or so patients during our ward round and out-patient clinic on day 1. We agreed a 4-day program of scheduled surgery. Lorenzo Dimpel assessed each patient.

Day 1	Day 2
1. Debride and skin graft leg wound	1. Excision large fungating recurrent SCC scalp and reconstruction with pedicled Myocutaneous trapezius flap
2. Debride and skin graft ankle wound	2. Debride and skin graft leg wound
3. Full thickness graft reconstruction eyelid burn contracture	3. Release burn contracture right elbow and Z-plasty reconstruction
4. Lateral Thoracic flap (LICAP) reconstruction burn contracture right breast	4. Debridement of massively disruptive foot wound
	5. Excision and graft facial keloid
	6. Debridement and closure bilateral leg amputation stumps (2 year old)

Day 3	Day 4
1. Release burn contracture right index finger and full thickness graft	1. Toe duplication
2. Release burn contracture right index finger and full thickness graft	2. Release 4th and 5th finger burn contracture and full thickness graft reconstruction
3. Release burn scar contracture axilla and elbow	3. Mastectomy and Axillary Dissection
4. Release congenital neck torticolis and Z-Plasty	4. Excision and graft facial keloid
5. Excision of Fungating tumour scalp and Scalp transposition flap reconstruction	5. Debride and graft thigh wound
6. Delayed reconstruction of compound fracture left lower leg with inferiorly based fasciocutaneous flap	

Wards

On day 1 of the mission we joined Faustin Ntirenganya on his ward round. Ward environment and facilities were lacking the refinements of UK Hospital, nevertheless general wound care was enviably good; there is a predilection to use gauze dressing which when removed physically debrides the wound and therefore almost all wounds we saw were ready for reconstruction.

Note: CHUK is the University Teaching Hospital for Rwanda. It has some 500 beds and provides most medical and surgical services including Orthopaedic, Eye, Paediatric, ENT and General Surgery as well as now Plastic Surgery. We glimpsed examples of complex challenging surgery, such as neurosurgery, taking place during our mission. It has an annual budget of approximately £4 million. A residency program is well established. Trainees present cases from the previous day to the senior surgeons (which include retired Surgeons now working for an American agency)

We saw severe burn injuries; a significant proportion from flames. A common problem is mosquito nets catching fire from candles. 70% of Rwandan homes have no electricity and use fire as their source of warmth and light. As

is typical for burn injury a large proportion of cases were children; one baby for example suffered extensive and deep burns to the face, neck and chest from which he would probably not survive.

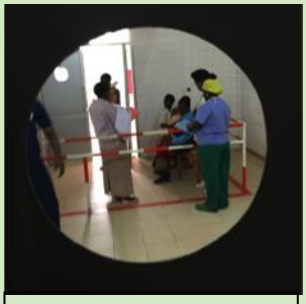
Lower limb trauma (from RTA) is predominantly managed with external fixation. Infected pin tracks and wounds communicating to fractures were a common observation during our short stay. Expedient wound debridement followed by early definitive orthopaedic fixation and soft tissue reconstruction would significantly improve livelihoods after such injury. Delay in access (or referral) makes reconstruction challenging and diminishes the chance of success

Out-patients

Word had got out a week or so before that "UK Plastic Surgeons were in town". Whilst Faustin had been quietly collecting appropriate cases for us, a great number of people presented themselves to the Hospital with unrelated and irrevelant conditions. Nevertheless what was seen was of enormous value to the my junior colleague, Akira Wiberg (AW), and is reflected in the breadth of cases that were ultimately scheduled for the rest of the week.

Operating Facility

The surgical block was the centre of clinical activity especially in the mornings and after the surgical residents handover meeting. The day started at 7am so that by 8am the first case had started. The general layout of the theatres was well thought out with a small patient reception and pre-operative ward at one end and the recovery and discharge area at the other. There were 6 operating rooms, various stores and a sterilizing unit.



Theatre Reception

4 year old made ready for surgery

The theatres were large and well worn; theatre doors would not close and were difficult to open; air exchange was via an electric air conditioning unit. Our Theatre room was suitably equipped with anesthetic equipment, operating table, two operating lights and diathermy. Basic surgical equipment varied in its quality. Acquiring appropriate suture and other consumables is a real day-to-day problem. Patients would bring skin staples they had bought from the local Chemist for us to close their wounds. We had taken a supply of sutures, leaving a variety behind when we left. The hospital had been gifted a skin graft dermatome but the mesher supplied alongside this had long since broken. We

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brought our own mesher, which was invaluable. Charitable donation of a replacement mesher would significantly enhance the team's reconstructive capability!

Surgical Procedures

Anaesthetic technicians delivered most of the anaesthesia, supervised by an anaesthesiologist. Lorenzo Dimpel made a significant contribution to the care of our patients. He had brought a suitcase stashed with a variety of drugs and equipment including a monitor. He was armed with commitment for the mission, enthusiasm especially to teach and train and experience of previously charitable work over many years! I will defer to Lorenzo for a full and further description here.

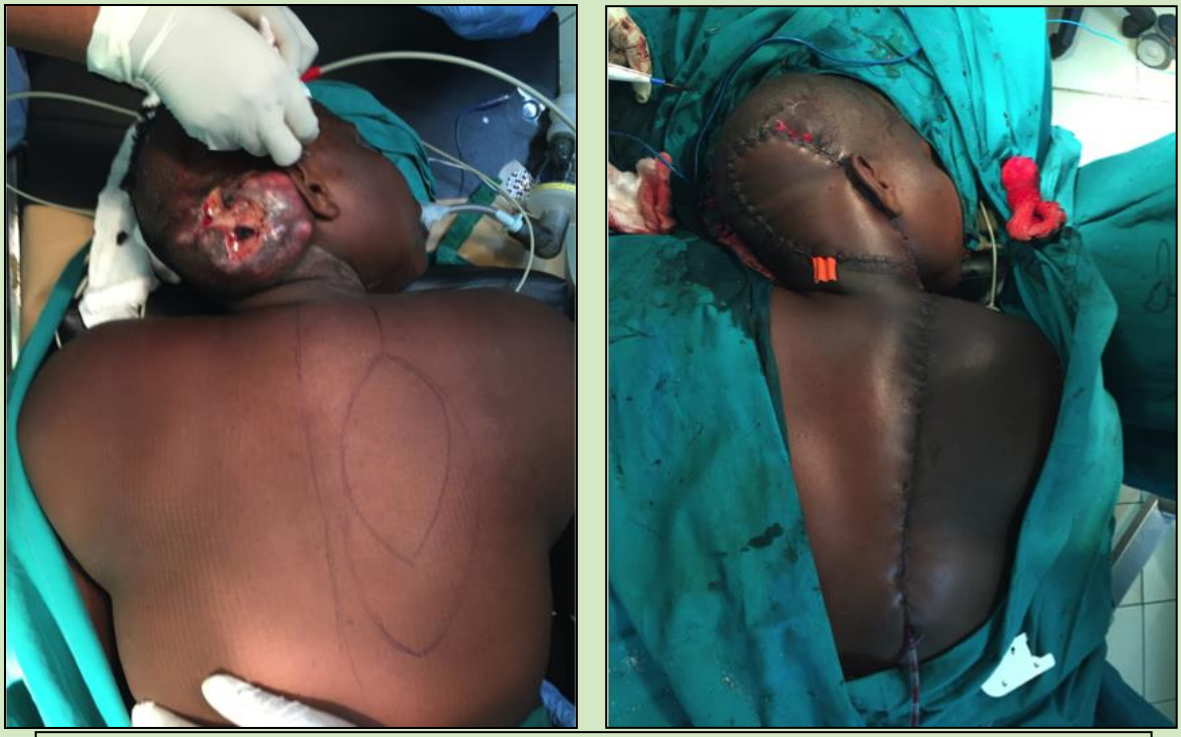
In variance with his usual practice in the UK and with reservation Lorenzo was challenged to anaesthetize a number of children. Whilst the majority of these patients were relative minor surgical cases they did present an anaesthetic challenge that Lorenzo was well versed to deal with, albeit with some ambivalence.

Notwithstanding the skill and equipment in place for skin graft procedures, which would benefit from the provision of a new mesher, experience with more complex flap based procedures was novel. My immediate observation indicated that Faustin was an exceptionally gifted and skilled surgeon who is committed to develop a sustainable Burn and Reconstructive Surgery service in Kigali. He acknowledged and welcomed the opportunity collaborate in the planning and execution of the flaps we performed.

Case Reports of Flap procedures performed

Lateral intercostal artery perforator (LICAP) flap is a relative new type of flap frequently indicated in breast reconstruction. I had little experience in the execution of this flap. Identification of the perforating vessels is normally by ultrasound (either hand held or with more sophisticated colour flow technology). This was not available to us and therefore the planning and execution of the flap was compromised. The burn contracture was first released by making an incision along the entire length of the infra-mammary fold. A flap was designed, based on the surface markings of perforators of lateral intercostal artery and vein. During elevation no perforators were found that were considered sufficient to sustain flap perfusion and therefore the procedure was converted to a lateral thoracic flap.

Trapezius flap reconstruction after resection of recurrent scalp SCC. In the UK this flap is rarely performed in preference to free flaps. Nevertheless it is a very useful flap for reconstruction of large posterior scalp defects; as in this young female who had a recurrent tumour following previous excision and skin graft reconstruction. Faustin Ntirenganya (FN) was the principle operator. Flap design, planning and elevation was supervised by Antony Fitton (AF) with both a UK trainee and a resident scrubbed. After tumour resection a lower trapezius flap was raised, pedicled on the descending branch of the transverse cervical artery and transferred to the scalp defect.



Pre and Post- operative pictures: Young Rwandan female patient underwent surgical resection of recurrent tumour of scalp and reconstruction with Lower Trapezius flap

Scalp flap reconstruction after resection ulcerated carcinoma of left parieto-occiptial scalp. A young (approximately 25 year old) albino female presented with a large ulcerating lesion behind her left ear. CT scan indicated that it was clear of the External Auditory Meatus and therefore surgically resectable. At surgery (performed by FN and AW with AF unscrubbed) tumour was peeled from the skull but as deep margin was involved the outer table of the skull was burred. Scalp transposition flap was raised at the sub-galeal plane and inset to the defect. A meshed split skin graft was used to reconstruct the flap donor defect.

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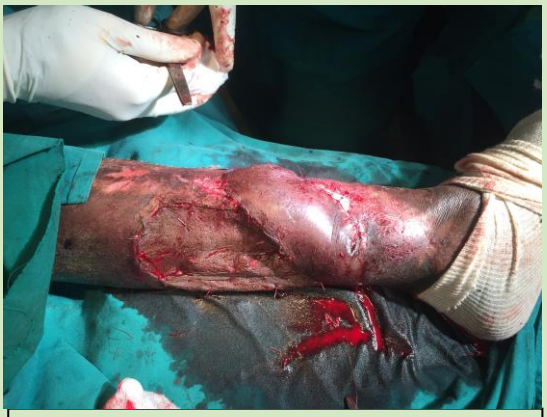
Fascio-cutaneous flap repair of compound (Gustillo IIIb) defect left leg. The orthopaedic surgeons referred a teenage patient with a large area of tissue loss over a midshaft tibial fracture at the time of their manipulation of the fracture. Because of the tardy nature of the referral the general condition of the leg was poor, rendering local flap repair difficult. Nevertheless Akira Wiberg (AW) was able to perform a medial fasciocutaneous flap based inferiorly on the medial perforating vessels of the Posterior Tibial artery. Split skin graft was applied to the flap donor site.

We were able to review one of these four patients on the last day of the mission but have though e-mail had feedback on the remaining three. All flaps survived and there was no marginal necrosis. Patients are to date making good progress. Adjuvant radiotherapy was indicated in the two patients with scalp tumours. Rwanda does not have a radiotherapy facility (yet); a few fortunate cases are sent on to Uganda!



Fasciocutaneous flap reconstruction of left lower leg

General Experience of Mission

The visit to Rwanda was a significant life experience. Notwithstanding the medical experience the team had opportunities to explore Kigali including a visit to the Genocide Memorial Centre and visit Akagera National Park on our last day. We were well looked after both by CHUK and, thanks to the Rwandan Government, in our Hotel.

Summary Points

- **10 day mission to Kigali, Rwanda**
- **5 days of clinical care planned with 4 days actually worked**
- **21 Plastic Surgical operations scheduled, 16 performed**
- **Collaboration with the Surgeon at CHUK**
- **Fostered Professional and Personal Relationships with the Surgical team**

- **Valuable experience especially for UK Plastic Surgery**
- **Complex and varied reconstructions performed with good immediate outcome**
- **Recommend establish schedule of missions with UK Plastic Surgeons working with the same team**
- **Charity funded skin graft Mesher and hand held Doppler will significantly enhance reconstructive capability**
- **Solution to shortage of consumables?**

19. ACHIEVEMENTS OF RWANDA LEGACY OF HOPE 2016 MISSION

1. Establishment of Training Centre at Rwamagana Hospital. To be equipped fully.
2. Successful First Hernia Workshop in Rwanda with positive feedback
3. Training of District Hospital doctors**. 6** fully trained as independent hernia surgeons
4. Effective collaboration with CHK in the selection and Training of District Hospital doctors.
5. Successful operation on **155** patients **145** of whom had hernia treatment.
6. Successful operations on **49** children with hernias
7. Donation of theatre equipment worth over **60,000 Euros** to Rwandan Hospitals
8. Plastic Team 16 operations including major complex reconstruction
9. Effective collaboration between RLOH and Ministry of Health which has benefitted Rwanda people
10. Effective Team Work between UK and Germany Surgeons, Nurses and Anaesthetic Assistants
11. Future collaboration between RLOH and Rwandan Medical Council. This was agreed to at a meeting between RLOH medical team and Chairman of Rwanda Medical Council at the end of the mission.

20. GENERAL RECOMMENDATIONS

These recommendations are the result of reflection on the whole of the Rwanda Legacy of Hope 2016 mission.

1. Documentation required for both medical and nursing registration should be delivered to the Ministry of Health in good time to avoid delays in registration.

2. Doctors to be trained should be selected early. This should be a collaboration between the Min of Health, CHK and Rwanda Surgical Society. The Medical Director of RLH should be engaged as well.
3. Recruitment of more nurses from UK for 2017 mission to make up for shortfall of theatre nurses and for essential training of theatre nurses.

21. SPONSORS

RLH and Operation Hernia would like to acknowledge the support of the following sponsors:-

1. ZITADELLE SPANDAU ROTARY CLUB in Berlin, Germany
2. HERROD FOUNDATION from Switzerland
3. Conmed UK
4. Eschmann UK
5. Leon Harding UK
6.

22. 2017 RWANDA LEGACY OF HOPE MISSION

The 2017 mission will take place in either February or early March. As soon as the date is confirmed, the Minster of Health will be informed. Dr Theophile Dunshime, Dr George Ntakiyiruta, the Rwandan Surgical Society and the Chairman of the Rwandan Medical Council will also be informed. We will hope to build on the successes of the 2016 programme, especially in the area of Training and Plastic Surgery.

1. The programme will be similar to that of 2016 – Workshop, Hands on Training, Service.
2. Expansion to include ENT Surgery and possibly Orthopaedics.
1. Training will be modified to accommodate less experienced surgeons
2. Formal Theatre Nurse Education
3. Development of scheme of local Clinical Supervisors to continue monitoring and mentoring district hospital doctors who are deemed to be capable if independent operating.
4. Audit of operations performed in 2016 for publication
5. Review of Rwamagana Training Centre

23. ACKNOWLEDGEMENT

1. Ministry of Health

Our prime thanks go to God who is the provider of all goodness.

We are deeply grateful to the Minister of Health **Hon Dr Agnes Binagwaho** for the incredible support the team has received. Our thanks also goes out to Dr Theophile Dushime for his support, advice and

for motivating the various Medical and Administrative Directors. We are grateful for our excellent Accommodation, transport.

2. Operation Hernia Medical Teams from UK and Germany

It is appropriate to acknowledge and congratulate the effort of all the surgeons, anaesthetist, nurses and anaesthetic assistants for volunteering significant financial resources, annual leave and other resources to provide the people of Rwanda with such excellent medical care. You are all heroes and heroines in the eyes of the Rwandan people who have benefited from your skills.

3. The RLH Medical Team would like to express sincere thanks to the following stakeholders.

1. Minister of Health
2. Ministry of Health officials
3. Rwanda Medical Council
4. Rwandan Surgical Society
5. Dr George and Dr Faustin
6. All Medical Directors
7. Staff of all hospitals
8. The local Rwanda Legacy of Hope officials who were very helpful with every aspect of the mission.

24. REFERENCES

1. Beard JH, Oresanya LB, Akoko L, Mwanga A, Dicker RA, Harris HW. An estimation of inguinal hernia epidemiology adjusted for population age structure in Tanzania. Hernia. 2013 Nov 15 (E-Publication ahead of print)

2.Beard JH, Oresanya LB, Ohene-Yeboah M, Dicker RA, Harris HW Characterizing the global burden of surgical disease: a method to estimate inguinal hernia epidemiology in Ghana. World J Surg. 2013 Mar;37(3):498-50

3. Beard JH, Oppong FC (To be published): Epidemiology of Inguinal Hernias in Rwanda.

4.Shillcutt SD, Clarke MG, Kingsnorth AN Cost-effectiveness of groin hernia surgery in the Western Region of Ghana. Arch Surg. 2010 Oct;145(10):954-61

5. Sanders DL, Kingsnorth AN, Stephenson BM. Mosquito net mesh for abdominal wall hernioplasty: a comparison of material characteristics with commercial prosthetics. *World J Surg* 2013; 37: 737 745.

6. Warwick A, Oppong C, Boateng Duah B, Kingsnorth A.Inguinal hernia repair is safe in Africa East Cent. *East and*
Central African Journal of Surgery 2013; **2**: 14–17.

7.Tongaonkar RR, Sanders DL, Kingsnorth AN. Ten-year personal experience of using low density polyethylene (LDPE) mesh for inguinal hernia repair. *Trop Med Surg* 2013; **1**: 136

25. ACTIVITIES PLAN 2016

ACTION PLAN 2016 RWANDA-LEGACY OF HOPE - UMURAGE W'IBYIRINGIRO

Project name	*Fild of intervention/ Domain*	*Duration*	Planned Activities	Planned Budget	Reason/Link with GVT program	Area of intervention Province,District,Sector	*Donnors*
Rwanda-Legacy of Hope - Umurage w'Ibyiringiro	Health	12days specialist	Hernia repair/252patients patients in 2016 Screening of patients Hernia repair surgery using mesh techniques A breakthrough was introduction of Hernia Repair under Local Anesthetic infiltration. All hernias had hitherto been performed under spinal anesthetic.	553,263,888	Link with GVT Program	Bugesera, Kamonyi, Karongi & Kayonza Districts. Remera-Rukoma, Kirinda & Gahini,Kigeme,Kibogora and CHKHospitals	Operation Hernia UK & Germany; All Nations Ministries UK; Plastic Surgery UK;ENT UK, UK,Chronic/Orthopedics UK,trauma sergeryand Pediatrics surgery Rwnda-legacy of Hope
			Training of medical doctors in hernia repair surgery 13doctors per year receiving training in Mesh or alternative Low tension Repair 2016 13 doctors appropriately to be trained.	14,300,000FRW	Link with GVT Program		
Rwanda-Legacy of Hope - Umurage w'Ibyiringiro	Health	12 days 35 specialist	Medical equipment donated Medical equipment donated to Remera-Rukoma, Nyamata,Gahini, Kilinda Kibogora,Kigeme,CHK and Rwamagana Hospital.	7,500,000FRW	Link with GVT Program	Bugesera, Kamonyi, Karongi & Kayonza Districts. Nyamata, Remera-Rukoma, Kirinda & Gahini,Kigeme,Kibogora and CHK Hospit als	Operation Hernia UK & Germany; All Nations Ministries UK; Trauma Surger UK;ENT UK, UK,Chronic/Orthopedics,Pediatric sergery UK Rwnda-legacy of Hop
			Establish a training centre at Rwamagana hospital in February 2016 . A key plan of our objectives is transfer of surgical skills and knowledge to local doctors in Rwanda. The benefits of such a programme are obvious. The trainees of today will become the trainers of tomorrow in Rwanda.	37,500,000FWR	Link with GVT Program		
			Plastic surgery 16 patients treated patient in February 2016	96,000,000FRW	Link with GVT Program		
		Filgth transport for 35 volunteers		21,000,000FRW			
			GRAND TOTAL FOR 2016	729,563,888FRW			

26. PARTNESHIP BETWEEN RWANDA REGACY OF HOPE WITH MINISCOP

PARTNERSHIP BETWEEN RWANDA LEGACY OF HOPE AND MINISTRY OF SPORT AND CULTURE

Meeting between Hon. Minister of Sports & Culture Hon. Julienne UWACU, Reverend Osee NTAVUKA Legal Representative of Rwanda Legacy of Hope and Pastor Clement KABIRIGI Secretary Executive of Rwanda Legacy of Hope on 15 February 2016.

The meeting was being held with the purpose of discussing the partnership between the Ministry of Sport & Culture and Rwanda Legacy of Hope in order to support The Ministry of Sport & Culture by providing skilled volunteers in sport and training guides for performing arts and media.

Rwanda Legacy of Hope is planning to send Mr Didier Neza, a British-Rwandese in his 23s, talented and qualified in sports therapy and personal training with the ability to coach football, volleyball and many other sports. He will travel to Rwanda from the 8th-26th August. His qualifications include a (Hons) BSc in Sports Therapy (2:2) from Coventry University, Level 3 Fitness Personal Trainer at Henley College, Level 2 Fitness Gym Instructor at Henley College, Sports Btec National Diploma: Distinction, Merit, Merit.

As a Rwanda Legacy of Hope volunteer, he will work with FRSS (Federation Rwandaise de Sports Scolaire) for preparation of the FEASSA Games 2016 - Mr. Didier Neza will work with them to prepare the different football and volleyball teams all of which will be comprised of student who are under 20 years of age

27. RELIGIOUS BASED ORGANIZATION RECORD

RELIGIOUS BASED ORGANIZATION RECORD FOR VEHICLES OWNED:

N°	Type of vehicles	Details	Number plate	Body serial	Engine serial Number	Project deployed in	Condition (etat)
1	N/A						
2	N/A						
3	N/A						
4	N/A						
5	N/A						
6	N/A						
7	N/A						
8	N/A						
9	N/A						

OTHER ASSETS OF THE RELIGIOUS BASED ORGANIZATION (PHOTOCOPYING MACHINE/office equipments), etc

No	Item	Description	Pproject deployed in	officer in charge	Project deployed	Condition (Etat)
1	2	Office tables				New
2	7	Computers + Laptop				New
3	3	board stand				New
4	2	Printers				New
5						

EXPATRIATE STAFFS

N°	Name	Nationality	Passport		Qualification	Position	Salary	Duration of Contract
1	N/A		Validity of the Passport	Expiry Date of Visa				
2	N/A							
3	N/A							
4	N/A							
5	N/A							
6	N/A							
7	N/A							
8	N/A							

RWANDA LEGACY OF HOPE MEMBERS

N°	Name	Nationality	Passport Validity of the Passport		Qualification	Position	Salary	Duration ofContract
				Expiry Date of				

RWANDA LEGACY OF HOPE MEMBERS

N°	Name	Nationality	Passport Validity of the Passport		Qualification	Position	Salary	Duration ofContract
				Expiry Date of Visa				
1	Pastor Osee Ntavuka	British-Rwandese	Rwandese - British		See CV attached	Legal-Representative	N/A	N/A
2	Mrs Zipora Nyirarukundo	Rwandese	Rwandese		See CV attached	Legal-Representative Assistant	N/A	N/A
3	David Ngabonziza	Rwandese	Rwandese		See CV attached	Treasury	N/A	N/A
4	Pastor Clement Kabirigi	Rwandese	Rwandese		See CV attached	Secretary Executive	N/A	N/A
5	Adrien Gapira	Rwandese	Rwandese		See CV attached	Secretary	N/A	N/A
	Conflicts Resolutions						N/A	
6	Kanamugire T Kamilli	Rwandese	Rwandese		See CV attached	President		N/A
7	Francois Habiyaremye	Rwandese	Rwandese		See CV attached	Vice-President	N/A	N/A
8	Jean Louis Habineza	Rwandese	Rwandese		See CV attached	Secretary	N/A	N/A
9	Claire Batamuriza	Rwandese	Rwandese		See CV attached	Advice	N/A	N/A
10	Dr Chris Oppong	British	British		See CV attached	Medical Director and Chairman, Operation Hernia and Consultant General Surgeon	N/A	N/A
11	Dr Ralph Lorenz	German	German		See CV attached	Deputy Medical and Consultant for General surgery	N/A	N/A
12	Vanessa Azabe	Rwandese/British	Rwandese/British		See CV attached	Member	N/A	N/A
13	Marie Louise Mukankusi	Rwandese/British	Rwandese/British		See CV attached	Member	N/A	N/A
14	Joie Clarisse Ishimwe	Rwandese/British	Rwandese/British		See CV attached	Member	N/A	N/A
15	Deborah Ingram	British	British		See CV attached	Member	N/A	N/A
16	Paul Sumner	British	British		See CV attached	Physiotherapist	N/A	N/A
	RWANDA	***LEGACY***	***OF HOPE***	***INTERNATION***	***AL***	***VOLUNTEERS***	N/A	
17	Dr Christine Kosch	German	German		See CV attached	Consultant General Surgeon	N/A	N/A
18	Dr Jens Heidel	German	German		See CV attached	Consultant General Surgeon	N/A	N/A
19	Dr Karl Spitzer	German	German		See CV attached	Consultant General Surgeon	N/A	N/A
20	Dr Maral Miller	German	German		See CV attached	Consultant General	N/A	N/A

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Chris Oppong Consultant Surgeon Medical Director Legacy of Hope Chairman, Operation Hernia.
Ralph Lorenz, Consultant Surgeon. Deputy Medical Director, Rwanda Legacy of Hope. Director of Surgeons for Africa

21	Dr med. Petra Wolkeding	German	German		See CV attached	Anaesthetist	N/A	N/A	N/A
22	Dr. Stefan Knaut	German	German		See CV attached	Consultant General Surgeon	N/A	N/A	N/A
23	Dr. Albrecht Frunder	German	German		See CV attached	Consultant General Surgeon	N/A	N/A	N/A
24	Dr. Oliver Stumpf.,	German	German		See CV attached	Consultant General Surgeon	N/A	N/A	N/A
25	Dr. Atingwa Tasi	German	German		See CV attached	Consultant General Surgeon	N/A	N/A	N/A
26	David Sedgewick	British	British		See CV attached	Consultant General Surgeon	N/A	N/A	N/A
27	ANTONY FITTON	British	British		See CV attached	Plastic Surgeon		N/A	N/A
28	Dr.Michael Wolfgang Payne	German	German		See CV attached	Plastic Surgeon	N/A	N/A	N/A
29	Peter STODDART	British	British		See CV attached	Cons Anaesthtists	N/A	N/A	N/A
30	LORENZO DIMPEL	British	British		See CV attached	Cons Anästhesist	N/A	N/A	N/A
31	Nala Sava-	British	British		See CV attached	Gen Surgeon ,	N/A	N/A	N/A
32	DELA Ball	British	British		See CV attached	Theatre Nurse	N/A	N/A	N/A
33	Martin Ahlburg	German	German		See CV attached	Anaesthtists	N/A	N/A	N/A
34	OTA Christian	German	German		See CV attached	Operating Nurse	N/A	N/A	N/A
35	Ines Kuhl nee Czybulka	German	German		See CV attached	Surgical Nursing Manager	N/A	N/A	N/A
36	Peggy Grassman, nee Prager	German	German		See CV attached	Scrub Nurse	N/A	N/A	N/A
37	Carolin Hildegard Margarete Dauksch	German	German		See CV attached	Anesthetist	N/A	N/A	N/A
38	Helena Azevedo	Brazilian	Brazilian (visa 1 entry)		See CV attached	Theatre Nurse	N/A	N/A	N/A
39	SANDRA STANTON	British	British		See CV attached	Theatre Nurse	N/A	N/A	N/A
40	Miss Amanda-JayneMcCall	British	British		See CV attached	Photographer	N/A	N/A	N/A
41	Cletus Mosob	British	British		See CV attached	IT Manager	N/A	N/A	N/A
42	Dr. Oliver Stumpf	German	German		See CV attached	Consultant General	N/A	N/A	N/A
43	Dr Eleanor Franziaska Elizabeth	British			See CV attached	Theatre nurse	N/A	N/A	N/A
44	Calorine Dauksch	German	German		See CV attached	Operating Nurse	N/A	N/A	N/A
45	Joanna Brettschneider	German	German		See CV attached	Anaesthetic Nurse	N/A	N/A	N/A
46	Heike Herget	German	German		See CV attached	Operating Nurse	N/A	N/A	N/A
47	Volker Jodenschwager	German	German		See CV attached	Medical technician	N/A	N/A	N/A
48	OTA Sandra	German	German		See CV attached	Operating Nurse	N/A	N/A	N/A
49	Heike Herget	German	German		See CV attached	Operating Nurse	N/A	N/A	N/A
50	Dr. Carmen Jäger	German	German		See CV attached	Anästhesist	N/A	N/A	N/A
51	OTA Lisa Lambrecht	German	German		See CV attached	Anästhesist	N/A	N/A	N/A
52	Markus Keppler	German	German		See CV attached	Anästhesist	N/A	N/A	N/A
53	Dr Evelyn Koblitz	German	German		See CV attached	Anästhesist	N/A	N/A	N/A

Reverend Osee Ntavuka, Director and Legal Representative, Rwanda Legacy of Hope
Chris Oppong Consultant Surgeon Medical Director Legacy of Hope Chairman, Operation Hernia.
Ralph Lorenz, Consultant Surgeon. Deputy Medical Director, Rwanda Legacy of Hope. Director of Surgeons for Africa

NATIONAL VOLUNTEERS:

N°	Name	Indentity card		Place & date of Birth	Qualification	Position	Salary	place of work		Duration of contract	
		n°	Place of issue					district	province	Start	End
	Mrs Zipora Nyirarukundo	Rwandese	Rwandese		See CV attached	Legal-Representative Assistant	N/A			N/A	N/A
	David Ngabonziza	Rwandese	Rwandese		See CV attached	Treasury	N/A			N/A	N/A
	Pastor Clement Kabingi	Rwandese	Rwandese		See CV attached	Secretary Executive	N/A			N/A	N/A
	Adrien Gapira	Rwandese	Rwandese		See CV attached	Secretary	N/A			N/A	N/A
							N/A			N/A	N/A
	Kanamugire T Kamili	Rwandese	Rwandese		See CV attached	President	N/A			N/A	N/A
	Francois Habiyaremye	Rwandese	Rwandese		See CV attached	Vice-President	N/A			N/A	N/A
	Jean Louis Habineza	Rwandese	Rwandese		See CV attached	Secretary	N/A			N/A	N/A
	Claire Batamuriza	Rwandese	Rwandese		See CV attached	Advice	N/A			N/A	N/A
							N/A			N/A	N/A
							N/A			N/A	N/A

MODE OF HERNIA REPAIR

I am writing this supplement to the 2016 Rwanda Legacy of Hope Mission Report to explain an important fact which was not emphasised in the report. It is to highlight the emerging principle in hernia surgery: ***To tailor the type repair to the patient and to the type of hernia.***

The standard for repair of inguinal hernias in most centres in High Income Countries (HIC) is the Lichtenstein mesh repair technique. This is a low tension and reproducible method of repair. It has a low recurrence rate compared to the high tension sutured repair (eg Bassini Repair) in Low Income Countries. Because of the cost of brand mesh few LIC's can afford to offer mesh repair to all hernia patients. Operation Hernia has popularised a low cost affordable mesh on our missions in LIC's. This affordable mesh is has equivalent properties and outcome to brand mesh. Some hernias are best repaired with mesh

Not all patients, however, were offered mesh repair during our Rwanda mission. Children and young people under the age of 15 would normally be offered HERNIOTOMY, which is excision of the hernia sac without performing a repair (HERNIOPLASTY). This is standard treatment.

A non mesh repair was popularised by Shouldice Clinic in Ontario, Canada. This is an own tissue repair performed without mesh. This has a very good short term and long term outcome. It has coexisted with mesh repair. Some hernias can be repaired using the Shouldice technique.

There are other techniques of non mesh, own tissue repair.

During the 2016 Workshop and training sessions in the district hospitals, doctors were taught both mesh and non-mesh repairs.

UPCOMING PROGRAMME OCTOBER 2016

The next mission to the centre is planned for October 2016 and will be led by Mr Karl Moser, Consultant Surgeon from Germany

FEBRUARY, MARCH 2017

The 2017 mission will take place in either February or early March.

The programme will be similar to that of 2016 – Workshop, Hands on Training, Service. Expansion to include ENT Surgery and possibly Orthopaedics.

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Chris Oppong Consultant Surgeon Medical Director Legacy of Hope Chairman, Operation Hernia.
Ralph Lorenz, Consultant Surgeon. Deputy Medical Director, Rwanda Legacy of Hope. Director of Surgeons for Africa

Training will be modified to accommodate less experienced surgeons
Formal Theatre Nurse Education
Development of scheme of local Clinical Supervisors to continue monitoring and mentoring district hospital doctors who are deemed to be capable if independent operating.
Audit of operations performed in 2016 for publication
Review of Rwamagana Training Centre

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