A Guide for Volunteers

Traveling to Rwanda
Information for Volunteers in Rwanda

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1. Introduction:

Welcome and thank you for volunteering for the Canadian Anesthesiologists’ Society International Education Foundation (CASIEF) teaching program in Rwanda. This volunteer manual is to help acquaint you with the country and outlines what the expectations are of you and what you should expect to get from this program. Please read this manual thoroughly as the information provided is vital to your success in both Rwanda and this program.

This program began in partnership with the American Society of Anesthesiologists Overseas Teaching Program (ASAOTP) in January 2006 to train Rwandan anesthesia residents. The goal is to build capacity for anesthesia in Rwanda so there will be enough local staff anesthesiologists to run the program with minimal international support.

We recommend that you read the following articles for a more in depth description of the structure of the Rwandan anesthesia residency program and CASIEF’s role:

Twagirumugabe, T., Carli F. Rwandan Anesthesia Residency Program: A Model of North-South Educational Partnership. International Anesthesiology Clinics. 2010; Volume 48, Number 2, 71-78

http://www.nysora.com/nysora_newsletters/3222-NYSORA-NEWSLETTER-MAY-2010.html#Rwanda

Before you go, we suggest that you familiarize yourself with Rwanda. A list of books and movies is included in this package. It is very important to understand as much about the culture as possible.

Thank you in advance for your time, interest and contribution. We hope you enjoy your stay in Rwanda and, much like our past volunteers, we are confident that you will receive as much as you give.
2. Country and City Descriptions:

a) Rwanda: Rwanda is a small, densely populated land locked country in eastern Africa and is also known as the Land of a Thousand Hills. It is located in the Great Lakes Region of eastern-central Africa and it shares borders with Tanzania (east), Uganda (north), Burundi (south) and the Democratic Republic of Congo (west). Although it is only slightly south of the equator, the temperature is quite cool because of its high elevation.

In spite of the tragedies of the 1994 genocide, in which an estimated 800,000 people were killed, the country, in its recovery, is currently considered a model for developing countries. The Rwandan government is viewed as one of the most honest and effective governments in Africa. In November 2009, the country became the fifty-fourth member of the Commonwealth of Nations.

Rwanda at a glance:
Size: 26,338 square kilometers (about the size of the state of Maryland)
Population: Approximately 10,000,000 (most densely populated country in Africa due its small geographical size)
Number of Anesthesiologists: 9 (for the whole country as of 2007)
Capital City: Kigali (population approximately 965,000)
Languages: Majority speak Kinyarwanda and Kiswahili, French and English
Currency: Rwandan franc
Religion: Roman Catholic, Protestant, Adventist (the majority of Rwandans are Christian), Muslim
Life Expectancy: 49
Doctor to resident ratio: 1:50,000 (as of 2010)
Literacy Percentage: 70
President: Paul Kagame (elected 2003)
b) **Kigali**: The majority of your time will be spent in Kigali, the capital city of Rwanda; it is one of the safest capital cities in Africa. Kigali is growing quickly and is the country’s port of entry and business centre. The compact city surrounds a lively market and is home to a variety of hotels and an assortment of fine dining restaurants including both international and more traditional menus.

In Kigali you will work at two hospitals and will teach nurse anesthesia students at Kigali Health Institute.

i. CHUK (pronounced Say-Hash-Kah – each letter with its French pronunciation, with exception of ‘U’) is the public, university hospital and was built in 1918. It currently houses 509 beds. CHUK’s major priorities are patient care, education and research and community service.

For more information on CHUK, please visit: [http://CHUK.org.rw/indexen.html](http://CHUK.org.rw/indexen.html)
ii. King Faisal Hospital is a private hospital. In 1998, Netcare South Africa and the Government of Rwanda became involved and the hospital began offering specialized services. It has a heavy focus on education, clinical training and research.

Currently the hospital houses:
- 140 acute care beds
- 8 intensive care unit beds
- 33 post-operative beds
- 2 operating rooms

For more information on King Faisal Hospital, please visit: [http://kfh.rw/](http://kfh.rw/)

iii. Kigali Health Institute (KHI) trains all allied health professionals, including nurse anesthetists. You will be responsible to provide some lectures for the nurse anesthesia students who are eager and appreciative students. The nurse anesthesia students do their clinical training in the hospitals, including CHUK.

For more information on KHI, please visit: [http://www.khi.ac.rw/](http://www.khi.ac.rw/)
c) Butare (also known as Huye): You will be travelling to Butare, where the National University of Rwanda (NUR) and the University Central Hospital Butare (CHUB) are located. Butare is about 135 km south of Kigali and is home to many of the country’s academic institutions and is thus referred to as the intellectual and culture centre of Rwanda. It is also boasts a variety of hotels and terrace restaurants and is home to the one of the country’s biggest tourist attractions: the National Museum of Rwanda.

Butare is currently home to Rwanda’s only medical school; however there are plans afoot to amalgamate the Faculty of Medicine and KHI into a separate University of Health. The combined school would be centered mainly on KHI’s property in Kigali. Currently, the Head of the University Anesthesia Department, the Head of the Residency Program, the Dean and the Vice-Dean of Medicine are all located in Butare.

Make sure that you bring your passport with you to Butare as it will be required for your check-in at the Credo Hotel. The NUR pays the Hotel Credo for the accommodation and provides money (approximately 10,000 RwF/day) for meals to each volunteer. The
cheque is normally available at the NUR office and is to be changed at the National Bank of Rwanda in Butare or Kigali.
3. **Initial Planning:**

**a) Travel:** Make your travel arrangements early and please search for the most economical fare. Expedia and other on-line agencies will give you an idea of fares and routes. Brussels Airlines: [http://www.brusselsairlines.com](http://www.brusselsairlines.com) has direct flights from Brussels to Kigali. This is more convenient than other routings with stops in Nairobi.

Many people have found helpful to deal with a travel agent. Some of the agents volunteers have used in the past are:

Ruth Bolhorn, Montreal  
Jill Smith, Trek Escapes, Toronto

A few weeks before your travel to Rwanda, send all of your flight information to Esperance, the public relations officer at CHUK, so that she can arrange for you to be met at the airport.

If you are traveling with a resident, generally the staff person books the travel for themselves and the resident. Staff should submit their travel receipts to Joy Brickell at the Canadian Anesthesiologists’ Society (CAS) - see address below - and the resident travel is reimbursed through their program.

Joy Brickell, Executive Assistant  
Canadian Anesthesiologists’ Society  
1 Eglinton Avenue East, Suite 208  
Toronto, ON M4P 3A1, CANADA  
[adminservices@cas.ca](mailto:adminservices@cas.ca)  
(416) 480-0602, ext. 20

**b) Passports:** Ensure that you have an up-to-date passport that is good for at least six months following your departure from Rwanda.

**c) Visas:** Canadian and US citizens do not need a visa for Rwanda however they are required for Australians. If you plan on travelling to neighbouring East African countries such as Kenya or Tanzania, you may require a visa; it is highly recommended that you research this in advance and secure the visas before you leave. You also may require special immunizations (see below – section ‘f’).

If your airline route takes you through Nairobi and you plan to go into town, you will need to purchase a visa at the airport. This will cost between $25 and $50 (USD).

**d) Registering with the Canadian Embassy:** It is highly recommended that you register with the Canadian Embassy prior to your departure. The nearest Canadian Embassy to Rwanda is in Nairobi, Kenya, but there is an Office of the Canadian Embassy in Kigali. You can register online (for the Canadian Embassy) at:
Current information on the location of the office and bureau chief are also available online.

e) **Copies of Travel Documentation:** Photocopies of all of your tickets and important documents should be left at home with family and you should also carry copies with you, which should remain separate from your originals.

f) **Health and Immunizations:** Special immunizations are not required for Rwanda, but you should ensure that your basic immunizations are up to date. Getting Dukoral, an oral vaccine against traveler’s diarrhea, is highly recommended.

Yellow fever vaccination is recommended for Rwanda and may be required if you are travelling from other countries in East Africa. Please see your local travel health professional well in advance of departure to ensure adequate time for vaccinations.

**Travel Clinics in HRM:**

<table>
<thead>
<tr>
<th>International Travel Clinic</th>
<th>The Travel Doctor</th>
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</thead>
<tbody>
<tr>
<td>Public Health Services</td>
<td>Quinpool Centre</td>
</tr>
<tr>
<td>7 Mellor Avenue, Suite 5</td>
<td>6169 Quinpool Road</td>
</tr>
<tr>
<td>Dartmouth, NS B3B 0E8</td>
<td>Halifax, NS B3L 4P8</td>
</tr>
<tr>
<td>(902) 481-5900</td>
<td>(902) 497 8535</td>
</tr>
</tbody>
</table>

Again, CASIEF will reimburse staff for vaccinations and residents will be reimbursed by their programs.

Malaria is endemic so always ensure that you use the bed nets provided and use mosquito repellant and malaria prophylaxis. Malarone, mefloquine and doxycycline are all suitable for Rwanda, but please check current WHO recommendations ([http://www.who.int/ith/en/](http://www.who.int/ith/en/)) to ensure that your prophylaxis is suitable for all of the countries you wish to travel to.

A supply of Cipro is recommended for diarrhea.

Currently, a supply of anti-retrovirals is stocked in the safe at the apartment in Kigali. It expires January/2011. If you must use it, please inform Dr. Franco Carli so that it can be replaced by the next volunteer.

For your own health, if you feel that you have been exposed to something sufficient to warrant starting anti-retrovirals, you should plan to return home as soon as possible.

Water in Rwanda must be boiled or otherwise treated before drinking. Bottled water is readily available for purchase in all supermarkets and roadside shops.
g) Insurance/Canadian Medical Protective Association (CMPA): It is highly recommended that you continue your regular life, health and critical illness insurance. Please ensure that you have coverage for overseas travel, including repatriation.

CMPA will cover you as long as you explain that you are going to teach anesthesia as part of a humanitarian mission. It is important to mention the mission will be teaching, not service.

CMPA requires a letter to Membership Services with the following information:
1. Destination
2. Dates of travel
3. Organization (in this case CASIEF)
4. That the work is voluntary
5. A brief description of what the work entails

There should be no additional charge for CMPA coverage and this work goes under the category of “missionary work”. The letter must be sent by snail mail to:

The Canadian Medical Protective Association
PO Box 8225, Station T
Ottawa, ON, K1G 3H7

h) Rwanda Medical License: You will need a license to practice in Rwanda. In the past, we have had great trouble contacting the Rwanda Medical Council. They do not reply to letters sent by email or “snail” mail. Current instructions are just to bring all the required documentation and present it upon arrival. It is possible you will not be asked for the documentation, but you should definitely bring it. You will need to provide the following documentation:
1) 2 passport photos
2) Curriculum vitae
3) A notarized copy of your medical degree and certificate of specialization
4) A certificate of good standing from your local college of physicians and surgeons
5) A report of good standing from your local police

Make sure you take notarized photocopies, as you do not want to hand over the originals, unless insisted upon. You should only need to provide this information once the first time you volunteer, so if you are a repeat volunteer, you will not have to bring this documentation on any other subsequent trips.

i) Letter of Introduction and CV: Please e-mail a short letter of introduction and your CV to Dr. Jeanne d’Arc Uwambazimana, Head of University Department of Anesthesia and make sure that you cc to Dr. Theogene Twagirumugabe, Anesthesia Program Director, National University of Rwanda. Both of these individuals are known as Dr. Jeanne and Dr. Theo to the volunteers.
Although they will already be aware that you are a volunteer because of the schedule of volunteers that is forwarded to them, it is courteous and polite to send a letter of introduction. In the letter, briefly introduce yourself and include a request for permission to go to Rwanda and assist in teaching. Also note the dates of your visit as specifically as you possibly can. Inform them of any special interests that you have and include your CV - the CV is important as it is required by the NUR to arrange for your accommodation in Butare.

If you are taking a resident with you, please include the resident’s name and level of training in your letter.

j) Preparing for Conditions: The work in Rwanda will be very different from what you are accustomed to at home. The patients often have advanced disease, the monitors and equipment can be poor and standards of practice may be very different. It is particularly important to review pediatrics, as these cases will be common.

Every year, Dalhousie University hosts the Global Outreach: Anesthesia in Challenging Environments Course (http://nsanesthesia.ca/international/globalOutreach.php). It would be valuable for you to attend this course, as it will help prepare you for what you can expect upon your arrival in Rwanda.

k) Clothing: People dress smartly in Kigali. The residents turn up to the academic day with ironed shirts, a crease in their long trousers, and polished shoes. Rwandan men are never seen in shorts, unless for sport. Women’s clothing should be reasonably modest with knees covered (skirts, capris and pants are fine).

The following are items that we recommend you take with you:

- Money (USD are the most widely accepted; ensure you have newer bills [after 2006] that are not damaged) – note that credit cards are not generally accepted
- Quick-dry clothing
- Some warmer clothing like fleece sweaters –especially for chilly evenings in the mountains
- Rain jacket
- Umbrella or waterproof clothes if going in rainy season
- Waterproof boots, hiking boots, gaiters (gorilla trek, rainforest trek)
- Flip flops or sandals and sturdy walking shoes for Kigali
- Scrubs (there are a few sets at the apartment, but they would need washing and are mostly larger sizes)
- Shoes or shoe covers
- Lab coat for wearing around the hospitals
- Hats and masks (you do not want to wear the local cloth ones, far too hot)
- Non-sterile gloves
- Reflector tape/armbands or lights for walking at night (streets are generally unlit)
- Headlamp (for those power failures)
- Extra towel – quick dry camping towels are particularly good
• Insecticide spray
• Hand sanitizer
• Ear plugs – especially if you are a light sleeper (the apartment can be noisy)
• Personal entertainment (ipod, dvds for computer, books) there are a few books in
  the apartment, a pack of cards and a TV (no DVD player)
• Personal hygiene items, first aid kit, spare glasses, etc.
• Medications that you require (ensure you have a good supply in case of any
delays on your return home or theft or loss – bring in carry on!)
• Women should bring a good supply of sanitary products. These are generally not
  widely available in Africa
• Cloth shopping bags (there are a couple at the apartment. Plastic bags are banned
  in Rwanda and will be taken from you if spotted by officials at the airport)
• Food- favourite snacks, energy bars
• Water bottle (one with a purifying filter is extra useful)
• Daypack for getting to and from hospital
• Camera (with extra batteries, memory cards, film or whatever)
• Electrical adapters/transformer, for more information visit:
  http://treehouse.ofb.net/go/en/voltage/Rwanda

You may also want to consider bringing:
• Business cards
• Spare batteries
• Paper and pens
• Laser pointer for teaching
• Laptop – especially if traveling with a resident. Back up all data – theft and
  viruses are very real threats
• Consider gifts for our hosts – suggestions for this are difficult but it is a nice
  gesture (People have brought OR hats, t-shirts, maple syrup, books etc.)

If you are traveling with medical equipment, it would be wise to have a letter from your
department head saying that you are traveling as a medical volunteer to teach in Rwanda

Here are a few things you do not have to bring:
• Plastic bags (their use is banned)
• Iron
• Expired medications/supplies

For a fantastic resource on preparation, please see Dalhousie
Students Pre-Departure Resources website:
http://iho.medicine.dal.ca/dalhousie-students/dalhousie-resources.htm

1) Blogging: If you decide to keep a blog of your experiences, please remember that
anyone can read it and be careful about patient confidentiality or making comments that
could be disturbing or offensive to your hosts.
4. Teaching:

a) **Overview of Teaching Program:** Here is an overview of the clinical teaching program through the NUR:

As was mentioned previously, clinical teaching takes place in three separate hospitals.

First year residents start training at CHUB in Butare with the objective of grasping the basics of anesthesia in the OR with a major focus on airway management, preoperative assessment, monitoring, intravenous access and applied physiology and pharmacology.

Second year residents mainly train at CHUK and are exposed to anesthesia in general surgery, orthopedics, ENT and obstetrics and gynecology along with a short rotation in the ICU.

Rotations for both third and fourth year residents take place in Kigali with at least six months in the ICU at King Faisal Hospital and a mandatory six months at CHUK in the obstetrics department. Third and fourth year residents are also exposed to thoracic anesthesia, neuroanesthesia and sometimes cardiac anesthesia.

The following schedule provides you with an outline of what each day’s session will entail (see also Appendix A):

<table>
<thead>
<tr>
<th>Schedule</th>
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<tbody>
<tr>
<td><strong>Monday</strong> -</td>
<td></td>
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<tr>
<td>7:00 AM -</td>
<td>Morning report at CHUK with nurse anesthetists, anesthesia residents and CHUK anesthesia staff in the anesthesia meeting room.</td>
</tr>
<tr>
<td>9:00 AM -</td>
<td>Academic day with the residents, also located in the CHUK anesthesia meeting room. There should be a lunch break for 1 to 1 ½ hours; you should finish about 4:00 PM.</td>
</tr>
<tr>
<td><strong>Tuesday</strong> -</td>
<td></td>
</tr>
<tr>
<td>7:00 AM -</td>
<td>Morning report at CHUK with nurse anesthetists, anesthesia residents and CHUK anesthesia staff in the anesthesia meeting room.</td>
</tr>
<tr>
<td>8:00 AM -</td>
<td>CHUK operating room teaching.</td>
</tr>
<tr>
<td>1:30 PM -</td>
<td>KHI lecture for nurse anesthesia students.</td>
</tr>
<tr>
<td><strong>Wednesday</strong> -</td>
<td></td>
</tr>
<tr>
<td>7:00 AM -</td>
<td>Morning report at CHUK with nurse anesthetists, anesthesia residents and CHUK anesthesia staff in the anesthesia meeting room.</td>
</tr>
<tr>
<td>8:00 AM -</td>
<td>CHUK operating room teaching.</td>
</tr>
</tbody>
</table>
**Thursday**-
Consists of alternate rotations that require travel to Butare (6:30 AM departure).

The other weeks are teaching in the OR at King Faisal Hospital (if there are residents and cases at KFH, otherwise you will remain at CHUK).

**Friday**-
The weeks in Butare will be OR teaching in the morning followed by an informal didactic session with the Butare anesthesia residents. If surgery finishes early, you will travel back to Kigali on Friday afternoon (unless a trip to Nyungwe Forest is planned for the weekend).

During the week in Kigali, teaching will be at King Faisal Hospital (if there are residents and cases at KFH, otherwise stay at CHUK)

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**b) Teaching Topic for the Month:** The formal curriculum of anesthesia teaching in Rwanda spans two years and is then repeated. You should identify your strengths and interests to Dr. Theo prior to your arrival. Dr. Theo will review your teaching interests in relation to the areas of the curriculum that need to be covered and then will assign teaching topics that are best suited to you. You may be required to cover one or two sections of the curriculum.

Once the topic has been identified, you should work closely with the Rwandan faculty member who will be co-teaching that month to develop the teaching program. It is good to remember the goal of the CASIEF program is self-sufficiency for anesthesia resident training in Rwanda. Therefore, it is important for us to encourage the local faculty to develop teaching skills by working with the volunteers to co-teach the didactic sessions.

**c) Morning Report (Mondays, Tuesdays and Wednesdays):** This meeting provides an opportunity to briefly review of the cases from the night before. Following the review, one of the anesthesia residents presents one or two of the challenging cases planned for the day. The resident presents the history, physical, lab results, describes the anesthetic considerations and the proposed anesthetic plan. You can use this case to make teaching points that will be valuable for the nurse anesthetists, which should be done by asking questions.

The resident should have seen the patient ahead of time. Sometimes the resident wants to present the case based on the nurse’s history. This practice should be vigorously discouraged as an essential part of the residency training is taking responsibility for cases.

The teaching at Morning Report is valuable as it offers an opportunity for team building and is the only chance you have to teach with the nurse anesthetist group. While the resident presents the history, the discussion and questions should include the nurses, as this is the only session where the volunteers do any teaching for this group.

**d) Academic Day (Monday):** This is a full day of didactic teaching that includes:
i. **Introduction to Anesthesia**: Past volunteers have identified a need for improved understanding of the fundamentals of anesthesia and for the residents to do more reading. In response to this, a course was started in November 2009 where the Lange, Clinical Anesthesiology textbook is read and discussed over one year. Each Rwandan resident has a copy of this textbook and is asked to read one chapter each week and come to the academic day prepared to discuss the contents of the chapter and to answer questions. Residents should be given questions from each chapter in advance so that they can read the chapter and be prepared to answer the questions on Academic Day. You should not lecture on the contents of the chapter but rather question the residents to ensure that the chapter has been read and understood. Questions from Lange should also be included in the final quiz.

ii. **Rwandan Resident Lecture**: There is one resident presentation each week, which means that each resident presents approximately once every two months. A Rwandan resident will present a topic each week, so you should identify four subjects from the teaching program for the month that could be presented by the residents. Once these topics have been selected, you should let both Dr. Theo and the chief resident know these topics and they will assign a resident to present each topic. Presentations should be a total of 30 minutes, with 20 minutes for the presentation and 10 minutes for discussion and questions.

iii. **Lecture or Case Discussion by Rwandan Faculty**: One Rwandan faculty member will be asked to work with you on the teaching program each month. The faculty member is committed to plan the teaching program with you in advance, attend the Academic Day that month and present some lectures. This will help build capacity as teachers for the local faculty, as the ultimate goal of the CASIEF program is to help develop an excellent core group of teachers in Rwanda, so that volunteers will no longer be necessary.

iv. **Lecture by Volunteer**: It is very important that your lectures are presented in a case-based and interactive format. This is essential as it keeps the residents interested and allows you to better assess the residents’ knowledge. You should prepare some formal lectures and plan a teaching program as outlined in the teaching template (see Appendix A). Once the teaching template has been modified to include the specific topics you will be covering for the month and on which dates, it should be submitted to Dr. Theo, the Chief Resident and Esperance Mukarurasagara, the Public Relations Officer for CHUK as she will arrange transportation. The teaching template is important, as it allows the Rwandan anesthesia staff and residents to identify the month’s teaching program as well as clarify any travel plans.

In the past, it has been a challenge to begin sessions promptly. Dr. Theo has requested that attendance be taken on Academic Day.
e) Lectures: It is very helpful if you can send readings and lectures to the residents in advance; there is a gmail account set up to receive these materials (rwanda.anesthesia@gmail.com).

In addition, talks can be brought to Rwanda on a memory stick, however, please aware of viruses on Rwandan computers. There is a computer at the apartment for your use but previous volunteers have experienced issues with viruses. Many volunteers bring their own laptops but it is essential to have all data backed up in case of computer loss. If you are traveling with a resident, it is helpful to bring a second computer with you. There may be other opportunities to present topics in small groups or to other learners such as medical students and non-anesthesia residents. The residents have a projector.

It is essential that the didactic sessions be interactive. It is impossible for you to accurately know the depth of understanding of the topics by the residents in advance. Furthermore, the residents’ first language is Kinyarwanda with French being the second language and English the third. If a lecture is delivered in English, and particularly if it is given rapidly, the residents may not understand or retain much information. In preparing your lectures, please try to avoid all abbreviations as these are very confusing to people who are not very comfortable in English. Teaching will be more effective if the Rwandan residents are questioned on various topics. Case discussions to illustrate points are also valuable.

Because of the communication challenges and the fact that junior and senior residents, with variable knowledge, are being taught together, it is important not to overload the lectures with content. It is very difficult to cover the same quantity of material that you’re accustomed to teaching Canadian residents in the same time frames. It is often necessary to stop intermittently for clarification.

You will, however, be pleased to find that the residents are very interested and engaged and are keen to participate in the teaching sessions.
f) Teaching Student Nurse Anesthetists (Tuesdays): Nurse anesthetist students are trained at KHI. They are very appreciative of the once-a-week volunteer lectures so you should propose presentation topics from your area of expertise. Charles Rangira is in charge of the nurse anesthetist training program and topics are to be approved by him. The material presented should be straightforward and not in the degree of depth that one would use for the anesthesia residents.

The class monitor is Jean Pierre and he is very helpful with the organization of the room, projector, etc. His name is in the contact list that will be sent to you before departure.

g) Teaching in the OR:
Anesthesia Residents: The anesthesia residents need to be encouraged to take complete responsibility for their cases. Many patients have their history and physical taken by nurse anesthetists prior to surgery. It is essential that you insist upon the anesthesia resident to do his/her own assessment, including history, physical, lab results, description of the anesthetic considerations and proposed anesthetic plan. You must emphasis that the resident should take complete responsibility for machine check, preparation of airway equipment and drugs.

h) Operating Room Environment: The operating building at CHUK consists of six operating theatres. There are four Aestiva Datex Ohmeda anesthesia machines. Sometimes the pipeline oxygen supply drops and backup cylinders of oxygen are not provided in each room. The local staff has been encouraged to ask for reserve oxygen cylinders in each operating room.

The operating theatres in CHUK are poorly ventilated and hot, with temperatures usually around 28 to 30 degrees C.

In CHUK, the staff anesthesiologists are often busy as they are few in number, and nurse anesthetists frequently run the operating rooms. It has been suggested that a volunteer and
Rwandan resident take one room and go over the list in its entirety. This way the residents will have more ownership for their cases.

The operating rooms in Butare have older anesthesia machines.

The residents have been told of the following clinical expectations. It is helpful to refer to this scheme during the day and in daily feedback sessions.

**CLINICAL EXPECTATIONS**

Pre-operative
- Evaluate patients before surgery
  - History of present illness
  - Medications
  - Allergies
  - Past anesthetics, family history of anesthetic problems
  - Review of systems
  - Airway, CV, respiratory exam
- Review anesthetic considerations and plan for surgery
- Prepare anesthesia workstation (develop and use your personal checklist)
  - Machine
  - Airway equipment
  - Drugs
  - Monitors

Intra-operative
- Patient safety is foremost concern
- Attentive to patient, monitors and procedure
- Keep orderly anesthesia work place
- Professional communication with colleagues/staff
- Show responsibility for the patient

Post-operative
- Careful transition to PACU
- Summary to nurses in PACU – patient history, blood loss, fluids in and out, analgesics, anti-emetics, surgical or anesthetic complications
• Attention to post-operative vital signs
• Attention to pain control

At the end of each day, it is helpful for the volunteer and resident to review the teaching points from the cases that day.

i) Quiz: The residents will expect a written quiz on the final Monday of the month, which should cover the material that was taught throughout that month. Please include material from your lectures as well as the chapters covered in Lange, Clinical Anesthesiology. Allow yourself time to grade the quiz and discuss the answers. The final, corrected quizzes should be given to Dr. Theo.

It would be ideal to allow time for one oral exam question for each resident. This can be conducted in a group format so other residents learn from listening to their peers.

j) Evaluation: Dr. Theo has worked hard to develop formal goals and expectations and to improve the evaluation of residents. The handbook of goals and expectations is in the process of being modified. However, some of the current mechanisms of evaluation are:

• Logbook – each resident must keep a log of all cases and include any techniques employed as well as the type of anesthetic used. The logbook must be signed by the clinical supervisor
• Daily evaluation – Dr. Theo is creating a daily evaluation card, which should be filled out and signed by the supervising Rwandan faculty member or volunteer anesthesiologist
• Monthly evaluation – a more detailed monthly evaluation will be done by the Rwandan faculty. The volunteer will also be asked to complete a monthly evaluation form. The daily evaluations will be helpful in completing the monthly form. (See Appendix C)
• Monthly quiz – given by volunteers
• Monthly oral exam – given by volunteers
• End of year written exam - based on the didactic program for the year; it is hoped a bank of questions can be developed
• Self-reflection and evaluation – Dr. Theo would like to introduce this at some point, but does believe that residents are ready yet
• Resident research – each resident must complete a research project as part of the residency program

Residents who do not meet the clinical expectations will not be allowed to advance to the next year. If a resident does not pass the end of year written exam, s/he will be allowed one attempt to re-write the exam.

k) Rwandan Teaching Staff: The three Rwandan anesthesiologists on staff at CHUK are as follows:

1. Dr. Willi Kiviri, Head of Department at CHUK (mainly works ICU)
2. Dr. Jean Nepo Karangwa, Deputy Program Director (mainly works OB/Gyn, and has a special interest in research)
3. Dr. Bosco Kayinamura (usually covers main ORs, and is interested in regional anesthesia)

The Rwandan anesthesiologists on staff at CHUB are as follows:
   1. Dr. Jeanne d’Arc, Head of Department
   2. Dr. Theogene Twagirumugabe, Program Director
   3. Dr. Desire Midonzi
   4. Dr. Jules Ndoli

At King Faisal Hospital, the Head of Anesthesia is Dr. Betty Khainza.
5. Housing:

a) Apartment: Accommodation is arranged through KHI. The current guest house is a 3 bedroom, 2nd floor apartment in a 3 story apartment block in Nyamirambo. It is located on a dirt road, which branches off the main Nyamirambo road to the left immediately past the BCR bank and Merez petrol station. When taking a taxi or moto, ask for the price to “Nyamirambo, Merez”.

The apartment can easily be seen as it is the largest building on the far left corner of the first cross road you come to after turning off the main road. It is gated (with a large brown gate) and fence; the area is generally safe. It is a busy, lower middle class neighbourhood and there is plenty of pedestrian traffic throughout the day and evening. This does create a relatively high level of outside noise, which can be bothersome when the windows are open.

Of the three bedrooms, the largest one has an ensuite bathroom, but it is in the front so it gets the most light and street noise. The other two bedrooms are about the same size, large enough for a bed and wardrobe. One has a window on the street and one is an inside room. All of the rooms are supplied with mosquito nets.

The hot water heater is located in the ensuite bathroom; make sure that it is plugged in if you would like hot water. Most of the time the water pressure is pretty good, but if the
water is not running, ask the houseboys (staff at the apartment, not the landlords) about it. They probably either turned it off, or did not filled the reservoirs on the roof. They can usually restore the water levels quite quickly.

The kitchen is quite small, with limited counter and storage space. It has a refrigerator with a freezer compartment and ice cube trays. There is a gas stove, but no oven. It is also equipped with a toaster, kettle and coffee maker, however the coffee maker remains untested and has a somewhat dodgy looking plug. There are aluminum pots and a non-stick fry pan for cooking and a basic set of dishes and cutlery.

To turn on the gas stove, you need to turn the gas control on the tank to a vertical position. If that does not work and you do not get any gas, turn the control 180 degrees as you can only get gas from the vertical position in one direction.

There are three sets of keys in total for the apartment. You will have one along with the other volunteer who accompanies you. Each of the key chains also has a key for the safe. For a listing of what is in the apartment and to whom it belongs, please see Appendix D and E.

b) Power: The electricity is 220 Volts and goes out regularly. If the power is out in your unit, but not in the others, it means that KHI has forgotten to pay the bill. Get in touch
with Theodore at KHI (go to the Rector’s office) and ask him to pay the bill to restore power. In the mean time, the houseboy can purchase more electricity. If you give him 5,000 to 10,000 RwF he can buy a code, which will give you power. Ask him to bring the receipt back and take that to KHI so you can be reimbursed. The electricity box that belongs to us is called Charlie.

There is a voltage regulator capable of 110 or 220 Volt output also available at the apartment. Remember a plug adapter for your laptop.

You will be very happy if you remember to bring a headlight

c) Safe: There is a safe in the apartment and the instructions on the safe and code for use will be sent to each volunteer before departure.

d) TV: There is only one Rwandan channel available without using the satellite receiver. If you wish to purchases more channels, take the card from the receiver to a Star Africa Media outlet (one is located in the bottom of the Nakumat building) and you can purchase more channels.

e) Cleaning and laundry: A daytime (before 5 pm) staff looks after the apartment. They clean it twice a week and give you clean sheets and towels once a week. If you want the apartment cleaned, just indicate this and they will usually respond immediately. You have the option of leaving a key with the houseboy while you are at work (make sure all valuables are in the safe) or you can ask him to clean after you get home, if you get home early enough. It is recommended that you leave a tip for the daytime staff of about 3,000 RwF per week.

One load of laundry will cost you about 3,000 to 4,000 RwF (plus laundry soap which you have to supply) and takes one to two days before its returned to you. You should pay the person who actually does your laundry, as the houseboys do not share the tips.
f) **Family:** Your significant other is welcome to join you on the mission, but unfortunately, children are not permitted. Please give Dr. Franco Carli the names of all of those who will be occupying the apartment.

g) **Cell Phone:** The program supplies a cell phone and a charger for both the staff and resident. Your family can call you on these phones, but it will cost them a lot. Most of the numbers you will need while in Rwanda are programmed into the phone. You will also be sent a full list of contact numbers before you leave in case you lose the phone.

You can purchase cell phone minutes from anyone in a yellow MTN vest who sells cards or from any shop with the MTN logo. Cards are available in 500, 1,000 and 1,500 RwF denominations. Text messaging is available and recommended whenever possible as it is the least expensive way to communicate.

Prior to your departure, please be sure to return the cell phone to Esperance Mukarusagara or Jean Nepo. If, for whatever reason you are unable to do so, please lock it up in the safe with the laptop in the laptop bag.

**h) Internet:** The Internet is readily accessed with a wireless modem that works through the cellular phone network. You can load it up with minutes and pay as you go, which will allow you internet access anywhere that you can use a cell phone.

There is one wireless modem for the staff and another for the resident. The wireless modem is a small stick that fits into the USB drive into your computer. You will need to run the setup program. Once it’s loaded on your computer, you access the internet by
inserting the wireless modem and clicking to connect to MTN. When you finish using the internet, you click to disconnect and then eject the modem icon before removing it.

Each wireless modem contains a sim card, which you can find by pulling out the metal slide near the USB port end, not the SD port on the side. To see how much time you have left, put the sim card in one of the phones and dial *110# and hit “send”.

To add more minutes, just purchase MTN minutes from one of the many vendors on the street. With the sim card still in the phone, follow the directions on the back of the MTN calling card. Scratch the number on the card, then dial *111*, then the number on the card, followed by #. This top ups the sim card. Once completed, put the sim card back in the USB drive and click on the MTN Rwanda icon. If this is all too complicated, take the wireless modem to any MTN office, such as the one near Nakumatt, and they will do the whole top up for you. Twenty thousand RwF should last you the month but you might need much more if you are a heavy Internet user.

i) **Printer:** There is a printer in the apartment along with some paper. The anesthesia department at CHUK also has a printer that you can use. Photocopies can be done in the Central Secretariat at CHUK, but you will need to provide paper either through the supply at the apartment, or via Esperance at the anesthesia department at CHUK.

A disk with the printer driver is located in the laptop case in the safe. The printer is an HP Deskjet 1560. The printer takes HP 21 and 22 cartridges.

j) **Data Projector:** There is also a program data projector locked up in the anesthesia office in ICU at CHUK.

k) **Security:** It is strongly recommended that you have the apartment cleaned while you are present. Keep your valuables locked in the safe at all times. All cell phones, modems and such valuables must be locked in the safe when your time in Rwanda is finished.
6. Life in Rwanda:

a) On Arrival: You will be met at the airport by either Esperance Mukarusagara or Dr. Jean Nepo; please ensure that you forward them your expected arrival time and flight number well in advance.

b) Money: The most convenient places to change cash in Rwanda are the FOREX bureaus. US dollars are always accepted, although some of the FOREX Bureaus in Kigali will change Canadian dollars. Make sure that your notes are new and in good condition as it can be difficult to change damaged bills or bills printed before 2006. It is useful to have both small and large denominations. Larger denominations (like 100s) will get you the best rates, but smaller denominations are useful for tipping and paying for things like hikes in the National Parks. Please note that guides typically only take USD cash and generally do not have change. You can order your USD from your bank in advance and specify – new bills, good condition, 2006 or more recent.

There is a FOREX Bureau in the airport. It is recommended that you change some money there if you arrive late at night or on a weekend. Following that, change your money in the city as the rates are slightly better in downtown Kigali. FOREX Bureaus generally give better rates than the banks, but the banks are the only place to change traveler’s cheques. These bank transactions can be very slow.

Credit cards are only accepted in a very few high end hotels although you can get cash from your credit card in the Union Trade Centre in Kigali. You can also pay at Nakumatt (supermarket) with a credit card but that will require you to go to a separate desk for the transaction then return to the cashier with a receipt.

c) Shopping: The best supermarkets are Nakumatt (in the Union Trade Centre) and Simba where you can buy clothing, fruits, vegetables, eggs, etc. Both are located in central Kigali near the Place de la Constitution. Nakumatt, in particular, is very well stocked, but can be expensive.
The Nyamirambo market is a few blocks from the apartment and has an abundant supply of fruits, vegetables, beans, rice, and colourful fabrics.

d) **Exercise:** The walk from the apartment to CHUK is about 30 minutes. Running is quite popular and safe in Nyamirambo; it’s just very hilly.

We have heard that you can swim in the pool at Mille Collines for 5,000 RwF, however your best option is the Serena Hotel. For a monthly membership ($200 USD) you have unlimited access to the pool, hot shower with good water pressure, whirlpool, sauna, gym and exercise classes.

e) **Transportation:** Transportation is arranged separately for each hospital and Esperance Mukarusagara should be able to help coordinate arrangements. However, sometimes, no matter how well they are planned, arrangements can fall apart.

If you would like a drive to the hospital, call CHUK transport (078 846 8169) about 30 to 45 minutes before you want to be picked up on the first day. You can then work out your own arrangements with CHUK transport. Some volunteers enjoy the 25 minute walk to the hospital but others prefer a drive. Just be sure make the arrangements in advance with CHUK transport.

If a car does not show up, call Esperance Mukarusagara. Alternately, you can contact the drivers directly:

**CHUK:** Joseph
For King Faisal: Emance

For transport between Nyamirambo and the city, there are local buses which cost 100 RwF per trip (2009). You will also see painted minivans with Ataco Town Service on the side and young men shouting out the doors. They are crowded, but are both inexpensive and quick. The shared taxis (mini buses) cost about 150 RwF from Nyamirambo to the city. Taxis to downtown can be harder to find and cost about 3000 RwF.
Motorbike taxis to town are dangerous, but plentiful and cheap - about 500 RwF.

If you need a driver on the weekends, contact Emmanuel at Rwanda Tours and Safaris. He is well versed in English and is an excellent driver with access to higher quality vehicles. He can make all of the arrangements for you with bonuses, like access to the best guides in the park. The average cost is $150-200 USD per day so, although it is not cheap, it is well worth it.

f) Restaurants: When in town, there are plenty of options with varying price ranges. There should be two copies of *Bradt Rwanda* at the apartment that can give you options and directions.

The Karibu restaurant, near the CHUK, offers a good lunch buffet.

Kigali has a wide selection of excellent restaurants with the Indian Kazana and Serena Hotel offering particularly fine meals.

Heaven Restaurant is near the Milles Collines (5 Rue de Mont Juru) and offers fine dining using Rwandese ingredients. Main courses average 7,000 RwF.

The Green Corner in Nyamirambo has been suggested as a good restaurant for authentic Rwandan food.

The Bourban Cafe, located in the Nakumatt building, offers a delicious choice of soups, salads (seem safe to eat), and sandwiches. It is an excellent place for coffees and croissants.

If you feel the need to meet ex-pats and exercise your brain in a non-medicinal way, try Sol e Luna, a pizzeria in Remera, close to the airport (about a 5,000 RwF cab ride). Monday night is quiz night so make sure you grab a table and order food before it starts at 8:30!

All of the hospitals have canteens, which offer inexpensive buffet lunches. In the past, volunteers have enjoyed eating there with the residents and staff. The buffet lunch is free of charge for volunteers at King Faisal Hospital.
7. Tourism:

a) Akagera National Park: A game park located on the eastern border with Tanzania it consists mostly of swamps, lakes, woodlands and grasslands with the Akagera River cutting through them. It is home to many big game animals such as elephants and buffalo as well as giraffes, zebras and antelopes. It is also has its share of predators such as lions, leopards and crocodiles as well as other animals such as hippopotami and various species of birds. It is definitely worth a day visit. Some volunteers have stayed overnight in the lodge or gone camping.

![Akagera National Park](image1)

![Giraffe in Akagera National Park](image2)

b) The Gorillas:

![Gorilla in the Wild](image3)

This is expensive, but definitely worth it! If you plan to visit the gorillas it is highly recommended that you arrange for your gorilla permit in advance, which can be done through the Office Rwandais du Tourism et des Parcs Nationaux (OTRPN) in Kigali. The most difficult part of it is that payment for the permit requires a wire transfer and
significant bank charges. The ORTPN accepts VISA if you are physically paying in their office. The permits are $500 USD each. There are only 40 permits issued per day.

It is recommended that you consider booking a gorilla tour for later in your stay, as you will be more acclimatized to the altitude. Depending on the season, you can arrange your permits upon arrival in Kigali which can prevent the additional wire transfer fees, however, there is a risk that permits will not available for the day you want to visit with the gorillas.

Once you have the date selected, you will need to arrange for accommodation in the region for the night before. You can stay overnight in Ruhengeri (we found the Muhabura Hotel to be pleasant - http://www.hotelmuhabura.com/partners.htm). You must arrive in Kibuye at 6:30 in the morning for an orientation and your assignment to a gorilla group. You will need to arrange for a driver to Kibuye, which is 20 to 30 minutes from Ruhengeri. The driver will also take you to the spot from which you will hike to see the gorillas.

Another option is to stay at the Kinigi Guest House, which is simple but charming. It is right across the street from the ORTPN office where you need to assemble to be divided into groups for the gorillas.

There are about five gorilla groups. The Susa group is the largest one, but is the one with the longest hike which includes a steep uphill hike at > 2,500 meters altitude so do not attempt to join this group unless you are reasonably fit.

Be prepared to tip your guide and also give a small tip to all of the five rangers who track the gorillas.

Please do not allow the complexity of these arrangements discourage you. It is an absolutely fantastic experience!
Advice from a past volunteer:

“Have Emmy (Emmanuel) pick you up at 9 am on Saturday. Drive via Ruhengeri to Gisenyi on Lake Kivu, stopping for photos on the way. Snack on samosas from the brewery 20 mins outside Kigali. Arrive Gisenyi about 2 and go straight to Serena Hotel (former Kivu Sun) for lunch on the beach. The burger is good value at RwF 3500 but the Fanta is RwF 1000. As a customer you can use their changing facilities and swim on their sandy beach. (No bilharzia. Bring your own towel from apt). You can take the boat from the beach to the Congo Border and back for RwF 8000 if you bargain hard. Drive along Lake Kivu past the brewery to the hot springs, then head to the Kinigi Guesthouse. Take warm PJs. In the morning you are 5 mins away from the Park Headquarters for Gorilla Trekking (need permits in advance from Kigali). Lunch in Ruhengeri then head home.”

c) Lake Kivu: Lake Kivu is the largest freshwater body in Rwanda and is located on the border between the Democratic Republic of the Congo and Rwanda and is surrounded by beautiful mountain ranges. Due to the fact that it is situated on a rift valley that is slowly being pulled apart, it is ranked within the top 20 deepest lakes in the world.

The Lake Kivu Serena is a nice spot for a pampered weekend right on the lake.

d) Nyungwe: This is a national forest about 970 square km across and is located in southeast Rwanda. It is the largest block of mountain forest in Central or East Africa. It is great for bird watching, hiking and seeing chimps (and other small breeds of primates) and water falls as well as for checking out the country’s beautiful flowering plants and over 200 different species of trees.

Nyungwe can be accessed by bus via Butare or with a car and driver. Accommodation is available at the ORTPN guesthouse so you can book in Kigali through the ORTPN office. It is best to plan your visit to Nyungwe on a weekend after you teach in Butare.

e) Kigali Genocide Memorial Centre: Located in Kigali it is the best known and most visited genocide memorial site. It was erected in 1994 in memory of all of the victims of
1994’s genocide where approximately 800,000 people lost their lives in 100 days. The remains more than 250,000 people are buried in mass graves. It also houses various other artifacts from the genocide such as bones, clothes and weapons, rosaries, ID cards, clothing and shoes. It is divided into different sites such as an education centre, a room that displays the artifacts and a documentation centre.

f) Genocide Memorial Sites:
   i. **Ntamara Church Massacre Genocide Memorial**: About 45 km south of Kigali it is the site of a vicious massacre. Between April 15, 1994 and May 14, 1994 an estimated 5,000 Tutsis were killed in church that was approximately 50’ by 20’. There are approximately 300 skulls lined up showing evidence of the brutality of the murders.

   ii. **Nyamata**: About 35 km from Kigali this is one of the regions that was most devastated by the 1994 genocide. May people fled to Nyamata to take refuge in the Catholic Church and nearby homes that belonged to nuns and priests. According to witnesses, on April 10, 1994 approximately 10,000 people were killed both in and around the church. The site is home to bones and clothing from the victims. The church is no longer used and its sole purpose is to remind people of what happened there and to always keep alive the memory of those who perished.
8. Final Report:

You will be asked to submit a final report of your time in Rwanda to Drs. Franco Carli and Patty Livingston. It is helpful to have your honest assessment of strengths and weaknesses of the program and suggestions for improvement.

Expenses for airfare and vaccines should be submitted to Joy Brickell.

Please also let Dr. Patty Livingston know if you have any suggestions or corrections for this information package.
9. Returning Home:

It can be a great cultural shock returning home after a stay in Rwanda. You may witness some disturbing situations such as extreme poverty, severe illness and, perhaps, patients dying for lack of treatments you would consider routine at home. It can be difficult to return home to a more privileged, luxurious society. Feelings of guilt and depression are common. You may also discover your colleagues have little appreciation of the challenges you faced and may treat your time away as a vacation. You may find the support of other CASIEF volunteers to be very helpful. Do not hesitate to contact Drs. Franco Carli and Patty Livingston directly with any concerns you wish to discuss.
10. Books on Rwanda:

1. We Wish To Inform You That Tomorrow We Will Be Killed With Our Families: Stories from Rwanda, Philip Gourevitch.
2. The Bone Woman: A Forensic Anthropologist’s Search For Truth in Rwanda, Bosnia, Croatia and Kosovo, Clea Koff.
3. Shake Hands With The Devil: The Journey of Romeo Dallaire, Romeo Dallaire
4. A Sunday At The Pool In Kigali, Gil Courtemanche
5. Machete Season, Jean Hatzfeld
6. Land of a Thousand Hills, Rosamund Halsey Carr
7. Justice on the Grass: Three Rwandan Journalists; Their trial for war crimes and a Nation’s quest for redemption, Dina Temple-Raston
8. The Angels Have Left Us, Hugh McCullum
9. The Rwandan Genocide, Linda Melvern
11. A People Betrayed: The Role of the West in Rwanda’s Genocide, Linda Melvern
13. An Ordinary Man, Paul Rusesabagina
14. Left to Tell, Imaaculee Ilibagiza
15. Touched by Fire, Elliott Leyton
16. The Key to my Neighbour’s House, Elizabeth Neuffer
17. Rwanda: Country Torn Apart, Kari Bodnarchuk
18. Silent Accomplice: The Untold Story of France’s Role in Rwandan Genocide, Andrew Wallis
19. Shadow of the Sun, Ryszard Kapuscinski
20. Baking Cakes in Kigali, Gaile Parkin


Lonely Planet: East Africa includes Rwanda and may be useful if you are planning travel in the region following your stay (one copy is currently in the apartment).

There are also various maps of Rwanda and Kigali in the apartment. Again, please leave these for the next set of volunteers.
11. Movies/videos on Rwanda:

1. Hotel Rwanda
2. Sometimes in April
3. Shooting Dogs
4. Shake Hands with the Devil. (Documentary and 2007 movie)
5. Chronicle of a Genocide Foretold: Parts 1, 2 and 3. National Film Board of Canada video
7. Sitting on a Volcano. National Film Board of Canada video
9. Gorillas in the Mist
12. Thank you!

We cannot express how thankful we are to you for offering your services to this extremely worthy cause. We appreciate your commitment and work towards improving health care in Rwanda and extend our sincere thanks.
### Appendix A

**Rwandan Anesthesiology Resident Teaching**

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<thead>
<tr>
<th>Week</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Sat.</th>
<th>Sun.</th>
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<tbody>
<tr>
<td><strong>Week 1</strong></td>
<td><strong>CHUK 7:00 to 8:00 AM Morning Report</strong></td>
<td><strong>CHUK 7:00 to 8:00 AM Morning Report</strong></td>
<td><strong>CHUK 7:00 to 8:00 AM Morning Report</strong></td>
<td>or travel to Butare with 0630 departure</td>
<td>7:30 AM Butare – OR theatre resident teaching</td>
<td>possible Nyungwe Forest National Park</td>
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<td></td>
<td>9:00 AM to 4:00 PM Academic Day (include 1 to 1½ hour lunch break)</td>
<td>8:00 AM-OR theatre resident teaching</td>
<td>8:00 AM-OR theatre resident teaching</td>
<td>7:30 AM Butare OR teaching with residents</td>
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<tr>
<td></td>
<td><strong>Academic Day</strong></td>
<td>KHI 1:30 to 3:30 or 4:00 PM teaching with nurse anesthetist students</td>
<td>CHUK 2:30 to 3:00 PM transport to Butare (important to arrive before dark)</td>
<td>OR teaching with residents</td>
<td>Return to Kigali - optional overnight if visiting Nyungwe Forest</td>
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<td>PM-Return to Kigali Saturday or Sunday by public bus</td>
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<td><strong>Week 2</strong></td>
<td><strong>CHUK 7:00 to 8:00 AM Morning Report</strong></td>
<td><strong>CHUK 7:00 to 8:00 AM Morning Report</strong></td>
<td><strong>CHUK 7:00 to 8:00 AM Morning Report</strong></td>
<td><strong>8:00 AM-KFH OR theatre teaching with residents</strong> (only if there are residents at KFH – otherwise CHUK)</td>
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<td>Week</td>
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<td>Week 3</td>
<td><strong>CHUK</strong> 7:00 to 8:00 AM Morning Report</td>
<td><strong>CHUK</strong> 7:00 to 8:00 AM Morning Report</td>
<td><strong>CHUK</strong> 7:00 to 8:00 AM Morning Report</td>
<td>or travel to Butare with 0630 departure</td>
<td>7:30 AM Butare OR teaching with residents</td>
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<td>7:30 AM Butare OR teaching with residents</td>
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<td>Butare OR teaching with residents</td>
<td>Return to Kigali</td>
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<td>Week 4</td>
<td><strong>CHUK</strong> 7:00 to 8:00 AM Morning Report</td>
<td><strong>CHUK</strong> 7:00 to 8:00 AM Morning Report</td>
<td><strong>CHUK</strong> 7:00 to 8:00 AM Morning Report</td>
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<td>8:00 AM-OR theatre resident teaching</td>
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<td>8:00 AM-OR theatre resident teaching</td>
<td>8:00 AM-OR theatre resident teaching</td>
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<td></td>
<td>Quiz Review quiz with residents</td>
<td>KHI 1:30 to 3:30 or 4:00 PM teaching with nurse anesthetist students</td>
<td>CHUK</td>
<td>CHUK</td>
<td>departure</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Notes:

1. **KHI** – Volunteers should plan on teaching the KHI nurse anesthetist students on Tuesday afternoon. Topics can be arranged with Charles Rangira in advance. The current class monitor is Jean Pierre and he will also be helpful with the arrangements (njepeter@yahoo.fr or local cell 078 841 0339)

2. **Morning Report** – There is a very brief presentation of the cases from the previous evening then one of the anesthesia residents (or a tech) should present one to two cases for the day. They should be a more challenging case with good teaching points. The volunteer can then lead a discussion of the anesthetic considerations, learning points about the case and the anesthetic plan.

3. **Quiz** – The residents should be given a quiz near the end of the month with material taken from the formal lectures given that month. Copies of the lectures should be given to the residents the week prior (or sent to the resident database at rwanda.anesthesia@gmail.com)

4. **Oral Exam** – In the final week, the volunteer should try to include an oral exam question for each resident. This could be done in a group format or with one or two residents present.

5. **Butare** – We have found that driving to Butare on Thursday morning does not allow enough time for a good teaching day. Leaving mid afternoon on Wednesday should allow enough time to reach Butare safely before dark and still have a productive teaching day on Thursday. It is very important to arrive in Butare before dark as the roads are unsafe at night. It is also an option to leave as early as possible on Thursday morning but it will reduce the OR teaching time on Thursday.

6. **Lange** – The Introduction to Anesthesia on Monday mornings is based on the Lange, Clinical Anesthesiology textbook. The residents need to read the assigned chapter before the session each week and come prepared to answer questions based on that chapter. It works best to send the residents questions for each chapter in advance to help guide their study of the chapter.

7. **Academic Day** – Dr. Theo has asked that one Rwandan faculty member be paired with the volunteer each month to work on the academic teaching program. The format should be as interactive and case based as possible

Revised 26 March 2010
Appendix B

Suggested Traits for Residents Based on CanMEDs Roles

Residents in Canada are evaluated according to the CanMEDs guidelines, which describe the knowledge, skills and attitudes that are necessary for all physicians. The following offers some suggestions, which have been given to the Rwandan anesthesia residents, to help them develop as excellent anesthesia practitioners. It is very helpful to refer to these points, or others you think should be added, when giving feedback to the residents.

Medical Expert
- Continue reading as much as possible
- Always do your own history, physical, assessment of lab results and special tests – even if this has already been done by a nurse anesthetist
- For every patient develop a list of anesthetic considerations and write these down
- Develop an anesthetic plan for each patient
- Continue to work at vigilance during anesthesia
- Develop a plan for post-operative care

Communicator
- Communicate with the surgeon to understand the specific needs and concerns for the case
- Provide the patient with an brief explanation of the anesthetic plan – for example, if you are going to do a spinal, explain in advance what you will be doing
- Ask if the patient has any questions
- Provide an appropriate report to the PACU nurses
- Keep an accurate and legible anesthetic record

Collaborator
- Show respect to patients and all members of the surgical team
- Never speak down to anyone or respond to questions in a mocking or sarcastic way
- Be very mindful of your tone of voice as you might convey a message you don’t intend (example: that the person you are speaking to is stupid)
- Safe anesthesia care depends upon excellent collaboration with your anesthesia colleagues, nurses and surgeons. Always remember that you are working as a team.

Manager
- Be punctual to all teaching sessions and to the operating theatre
- Pay attention to the time taken for meal breaks: if you tell the person relieving you that you will be back in the operating theatre at a certain time, be sure to return at that time
- Be organized and efficient in your work (example: when possible prepare for the following case)
- Try to assure that you are not the reason for any room delays
- Try to anticipate the supplies you will need for the day and gather these well in advance rather than searching for items during surgery
- Your first priority is the patient: if a piece of equipment is missing or the oxygen supply fails, send someone else to get it or fix it, and have them report back to you in a timely manner. You may want to get the cell phone number of the person responsible for changing the oxygen cylinders so that you don’t have to leave the OR to fix it.
Health Advocate
- Patient safety should always be foremost
- Make sure the patient is optimally prepared for surgery or cancel elective surgery if the patient has unresolved medical issues that could impact anesthesia
- Practice a high standard of safety at all times and encourage others to do so
- Continue to work to improve the knowledge and capability of all members of the operating team (example: leading morning report and teaching nurse anesthetists)

Scholar
- Continue scholarly pursuit of knowledge
- Recognize that medicine involves life long learning and continue to refresh your knowledge: anesthesia is an evolving field, and new technologies and information develop every day.

Professional
- Practice to a high ethical standard
- Be honest at all times, even when you have made significant errors
- Continue to reassess your performance and reflect on your learning needs
### Appendix C

**Monthly Evaluation Form**

National University of Rwanda, *Faculty of Medicine - Department of Anesthesiology and ICM*

**Anesthesiology Resident Monthly Evaluation Card**

<table>
<thead>
<tr>
<th>Resident:</th>
<th>Month:</th>
<th>/2010</th>
<th>Supervisor:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Skills evaluated</th>
<th>Poor</th>
<th>Fair</th>
<th>Good</th>
<th>Very Good</th>
<th>Excellent</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical knowledge &amp; Technical skills, plan formulation</td>
<td></td>
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<tr>
<td>Communication with patients and records keeping</td>
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<tr>
<td>Team work and professional behavior</td>
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<tr>
<td>Managerial skills: punctuality, organization, time management</td>
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<tr>
<td>Safety for the patient, optimization of conditions and comfort</td>
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<tr>
<td>Learning: self-education, reading and update, presentation-seminars</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autonomy <em>(Including Knowledge when to ask for help)</em></td>
<td>No</td>
<td>Partial</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Additional comments and/or suggestions:--------------------------------------------------------------------
----------------------------------------------------------------------------------------------------------------------
----------------------------------------------------------------------------------------
Areas of improvement:-----------------------------------------------------------------------------------------------
----------------------------------------------------------------------------------------

Overall mark: -------/ 20 pts

Name & Signature of the supervisor: -----------------------------------------------
Appendix D – Apartment Inventory
Apartment 1B-CR

General Description of Apartment Contents, by room:

Rm 1 A CR 1 (Front Bedroom with Ensuite Bathroom) (1 key for each door)
  Window curtains
  Double bed with mosquito net and bedding
  Standing wardrobe with keys (warped so locks, but poorly)
    - hanging space with 4 coat hangers
    - 1 drawer
  2 bedside tables about 1 foot high, 2 drawers each
in the bathroom:
  wall mounted mirror
  1 bath towel on rack
  1 brown plastic laundry bowl
  1 bottle liquid hand soap
  toilet, bath (with hand held shower head)
  hot water tank

Rm 1 A CR 2 (Middle Bedroom, outside window) (1 key for door)
  Window curtains
  Double bed with mosquito net and bedding
  Double-front standing wardrobe – no keys
    Half shelves
    Half hanging space, 4 coat hangers
    2 lower drawers
  Row of hooks above bed

Rm 1 A CR 3 (Inside bedroom) (1 key for door)
  Window curtains (has window into hall beside kitchen)
  Double bed with mosquito net and bedding
  Double built in wardrobe with keys (locks well!)
    Half shelves
    Hanging space, 4 coat hangers

Sitting Room (has windows and door to balcony over street in front)
  Window curtains
  Coffee table with doilie
  4 end tables with doilies
  2 wooden armchairs
  1 – 3-seater wooden sofa
  3 shelf TV stand with TV and cable box and remote controls for each
  3 wooden carvings on walls
  1 small old safe whose keys have sadly been lost
  2 exercise mats and an IT band roller

Shared Bathroom (1 key for door)
  Wall mounted mirror
  Toilet, sink with small shelf, shower platform, plugs
1 bottle hand soap
1 pump bottle chlorhexidine hand gel (3/4 empty)
large bucket of reserve water
1 bath towel on rack

Kitchen (has inside door with key and door out to hallway, locked, no key)
Fridge/freezer: lockable, 2 keys
Freezer – 2 ice cube trays
Fridge – 4 shelves, 2 drawers, egg holder
Gas Stove: 4 burners, (oven portion non-functional-no door), propane tank-supplied and changed by KHI, call Clair KHI if it runs out

Wastepaper basket – only one in apartment (emptied by houseboys every few days)
Small double sink with cupboards underneath and draining board, virtually no counter space (enough to hold a toaster and kettle)
2 kettles – one white with silver trim – works
  - one white with orange button – untested
2 toasters – one silver/black – works
  - one white/yellow – untested
1 partial roll paper towel
1 juice jug (needs sterilizing)
purple dish drying rack
pink chopping board
purple lighter
1 partial roll aluminum foil
1 coffee maker – untested
2 open bottles dish soap – 1 green ¼ full
  - 1 yellow full

1 broom
3 stackable aluminum pots
1 non-stick frying pan- good condition
1 rusty wok
5 plastic containers, various sizes, lids don’t seal well
1 white/green dish towel – CASIEF
1 white/yellow/green dish cloth – CASIEF
1 yellow/green sponge/pan scrubber
few paper bags, few ziplock bags,
1 unopened bottle ketchup – CASIEF
1 opened bottle cooking oil, nearly empty
1 opened bag salt – rock hard

Dining Room (front door opens into this room)
1 large dining room table with 6 chairs, table cloth, 6 plastic placemats and coasters
2 wooden carvings on walls
1 embroidered, framed wall-hanging
1 ironing board
1 safe – with keys and/or digital code
  2 sets HIV PEP drugs
LARGE, built-in wooden wall hutch/storage cabinet (forms main lockable storage area for apartment, all cabinet doors have keys, contents are diagrammed below)

<table>
<thead>
<tr>
<th>Glass-fronted cupboard 1</th>
<th>Glass-fronted cupboard 2</th>
<th>Glass-fronted cupboard 3</th>
<th>Glass-fronted cupboard 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shelf A</td>
<td>Shelf B</td>
<td>Shelf B</td>
<td>Shelf B</td>
</tr>
<tr>
<td>Drawer A</td>
<td>Drawer B</td>
<td>Drawer B</td>
<td>Drawer B</td>
</tr>
<tr>
<td>Wooden cupboard 5</td>
<td>Wooden cupboard 6</td>
<td>Wooden cupboard 7</td>
<td>Wooden cupboard 8</td>
</tr>
</tbody>
</table>

Upper glass-fronted cupboards:
- **GFC 1**: Top shelf: 10 rolls toilet paper
  - Middle shelf: teapot, creamer, sugar bowl (with scraping of sugar), salt shaker (full), pepper shaker (empty)
  - Bottom shelf: 6 teacups, 6 saucers, 1 thermos, 1 iron
- **GFC 2 & 3**: Top shelf: empty
  - Middle shelf: 8 bowls, 8 side plates
  - Bottom shelf: 2 platters, 6 dinner plates, 4 glasses
- **GFC 4**: Top shelf: empty
  - Middle and bottom shelves: 3 plastic serving dishes, various sizes, 1 ceramic serving dish

**Shelf A:**
- 1 woven pot containing keys of unknown utility

**Shelf B:**
- 1 wooden pot, 6 hot pads, 1 New Testament

**Drawer A:**
- Paper bags

**Drawer B** (cutlery drawer)
- 2 small sieves (tea strainer type size), 3 wooden spatula, 1 long knife, 3 sharp knives, 8 table knives, 2 can openers, 5 forks, 4 dessert spoons, 6 teaspoons, 1 plastic spoon, 3 plastic forks, 1 pair pink/green handled kitchen scissors, 1 partial roll thread-seal tape, 1 nearly empty tube UHU adhesive

**WC 5**:
- Top shelf: old GQ magazine
  - Bottom shelf: box with 5 bottles Klix cleaning powder for cleaners

**WC 6, 7, 8** contain CASIEF assets outlined in detail in Appendix C
Appendix E – Detailed list of CASIEF assets in apartment

WC 6: Top shelf (not secure): Entertainment:
   Books/novels: Trick of Light, David Hunt
   A Sunday at the pool in Kigali, Gil Courtemanche
   Le Divorce, Diane Johnson
   What is America?, Ronald Wright
   The Norfolk Triangle, Brian Cooper
   The Winner, David Baldacci
   Panic, Jeff Abbot
   Shining Through, Susan Isaacs
   The cruel stars of the night, Kjell Eriksson
   Genghis Khan, Jack Weatherspoon
   Robinson Crusoe, Daniel Defoe
   Out of Antarctica, Robert Argood
   The Heart of Antarctica, Ernest Shackleton
   Shake Hands with the Devil, Romeo Dallaire
   Bradt Guide, Rwanda, 2\textsuperscript{nd} edition
   Bradt Guide, Rwanda 3\textsuperscript{rd} edition (2 copies)
   Lonely Planet, East Africa
   1 pack playing cards
   blue plastic folder with miscellaneous tourism pamphlets, 2 maps

Kigali, 1 map Rwanda

Bottom shelf (secure): Anesthesia references:
   Texts: 2002 ASA Annual Refresher Course Lectures
   Anesthetic Uptake and Action, Eger
   Basic Physics and Measurement in Anesthesia, Davis etc.
   ECG Workout: Exercises in Arrythmia Interpretation, 2\textsuperscript{nd} Ed. Hutt etc
   ACLS Provider Manual 2002
   Sang Difficulte 2, Health Canada, 2005
   CDs: Anaesthesia Resource Vol 1 2004
   Anaesthesia 2 Resource Vol 2 2005
   TEAL Vol 5, 1995-1999
   2004 CAS Annual Meeting Supplement
   IARS Selected Review Course Lectures 2001
   Astra Zeneca Regional Anesthesia Anatomy and Procedures Module 1

Brachial Plexus and Upper Extremity (2 copies)
   LMA-ProSeal
   Cook Management of the Difficult Airway version 2.0
   Lippincott’s Interactive Anesthesia Library version 3.0
   “Lippincott 7 Textbooks”
   “Extra Disc for Miller’s Textbook of Anesthesia”
   “Airways 85 Cases”
   “Manuals etc.”
“E-Book “Medical””
“MGH Regional Anesthesia Articles 2006”
“Brachial Plexus Blocks”

Papers: Yellow Folders labeled: “Volunteer Reports, Glostavent Info”, “Miller Acute Postop Pain”, “Macalester College”
Black Folder, containing pain stuff

WC 7: Top shelf: 1 pair white Crocs, size 7
Disposable gloves: 2 boxes small, 2 boxes medium, 3 boxes large
Few disposable surgical masks, hats, shoe covers
3 airline blindfolds in vanity kit
Bottom shelf: 1 XL yellow rubber rain suit (must be hot in this climate)
1 umbrella
1 elasticized knee brace
1 bag of scrubs: XXL – 10 tops, 5 bottoms, XL – 3 tops, 4 bottoms, L – 11 tops, 8 bottoms, M – 3 tops, 3 bottoms, S – 1 top, 3 bottoms
1 open bag laundry soap

WC 8: Top shelf: HP deskjet D1560 printer with power cord, 1 open packet printer paper
Bottom shelf: 1 bicycle pump,
ziplock bag with 2 cable locks and base plate (no combination, not usable),
blue plastic folder with miscellaneous cords: 1 whitish with telephone jack plugs both ends, 1 same but silver, 1 same but thick yellow, 1 Nokia with British plug (?looks like an old cell phone charger), 1 Motorola with north American plug (looks like an old cell phone charger), 1 multi-axial cable splitter – single male end, double female end, 1 view sonic remote control, 1 Sony remote control, 1 head set with earphones/microphone for Skype, 2 candles (1 partially used)
1 voltage regulator-CASIEF,
1 power bar suitable for any type of plug- CASIEF

Safe:
Ziplock bag with HIV PEP drugs

Computer bag:
1 Toshiba “Satellite” computer with windows XP 2000
1 power cord for same
instruction books for Toshiba computer
instruction books for HP printer
installation disk for HP printer
restoration disks for computer
windows installation disk
1 small green usb adapter port with symbol for mouse on it