

InSURGency

AKUH DEPARTMENT OF SURGERY NEWSLETTER CATALOGING
RESEARCH, EDUCATION AND SERVICE ACTIVITIES

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60 years of Aga Khan Hospital

It has been 60 years since the founding of AKUH,N and since then it has grown in leaps and bounds. From a small hospital in Parklands, it has spread its wings and is now a world class facility with most specialties and over 40 outreach clinics.

This goes to show what can be achieved when we pull resources and work together towards a worthwhile goal - in this case, raising the standard of healthcare in the country. Currently the hospital ranks among the best in East and Central Africa, but not wanting to rest on our laurels, we are in the process of planning for a new paediatric hospital, upgrading the wards (long overdue), the heart and cancer care centre, changing of the ETB from an administrative building to a clinical space and, hopefully in the next few years, a revamped sports orthopaedic unit and an aesthetic surgery centre.

As part of the 60 year commemoration, a 10K run was held in October 2019. It was extremely well attended and a resounding success. We would like to congratulate all the participants who trained and sacrificed to make it a memorable day.

The short to medium term plan of the surgical department is to make our services more accessible to a greater proportion of the population. This will involve taking advantage of the outreach clinics, building relationships with government hospitals, NHIF and funding agencies, including topping up our own welfare purse. With a growing population, a changing medical landscape, greater competition and ballooning fiscal

considerations, our rate of change at Aga Khan University Hospital must match that of society if we are to continue on our current upward trajectory. This is all the more relevant given the huge challenges the COVID epidemic is presenting to healthcare institutions the world over.

In this bumper edition of InSURGency we speak to the one and only Corona virus, which is changing the way we live and work. We interview the staff who work behind the scenes to ensure that the surgical clinics run smoothly. There are highlights of our first International Breast Oncoplastic surgery training and we share excerpts from the surgical research retreat held in Tsavo National Park in January 2020. As part of the accountability and transparency drive, the "Follow Ups" section recaps points raised in earlier InSURGency editions with relevant progress... or regress, and there is an extended "Bouquets and Barbs" section with a piece on the Basic Surgical Skills course by Stanley Mugambi. In the spirit of innovation, we are happy to introduce a "Resident's Corner" where we showcase our trainees' accomplishments, and share their concerns. In this edition we feature a piece by Ken Muthua on his elective experience in Nkubu town.

The InSURGency editorial team would like to thank all the hospital workers for keeping the place running, and we appeal to all the readers to stay safe during these uncertain times, to show compassion towards one another and, for those unfortunate enough to have been taken ill, we wish you a speedy recovery.

The editors encourage feedback and contributions to the newsletter - kindly email: njalalle.baraza@aku.edu or miriam.mutebi@aku.edu

Interview with a virus - COVID-19!!



There has been a lot in the media about you, Covid -19, and the havoc you are wreaking on the planet. What exactly are you?

I am Corona virus disease 2019. It is a name associated with my wider family, the SARS coronavirus 2 group. I am the newest strain on the block.

What exactly is a virus and what does it do?

A virus is an infective living entity consisting of genetic material within a protein and lipid capsule. I gain entry into the cell and begin replicating, essentially killing the cell.

So that's it?

No, your human defences launch an attack against me and try to subdue me. They do this by targeting and killing cells which I have infected using antibodies (immunoglobulins) and T cells.

Ok you're getting technical so I'm going to stop you there. Let's get back to you specifically. Where are you from?

I am present in several animals, bats and pangolins in particular. I was first identified in humans in China towards the end of 2019.

What do you do, and what makes you so bad?

I have spikes on me, like a crown. You do know that corona means crown in Latin, don't you?

Of course. Carry on, please

So these spikes latch on to the lining of your epithelial tract, infecting cells there, replicating and spreading. I induce a severe inflammatory response which manifests itself in flu-like symptoms - sneezing, cough, sore throat and general malaise. In the immunocompromised or the elderly, this can lead to life-threatening pneumonia requiring respiratory support. I must stress though that I have attacked and destroyed several young and fit persons too. I am transmitted mainly through respiratory droplets e.g. saliva and mucus, and I can last for hours on surfaces. I also cause occasional gastro-intestinal disturbances. Are you with me?

Yes, just about. But you sound like any other respiratory virus. Influenza comes to mind. What makes you so special?

My strength is my virulence - the ease with which I can spread and cause serious symptoms in you humans. There is also the little fact that you guys haven't figured out a vaccine for me yet, and that no targeted innate immunity in humans exists to curb my growing influence (cue: evil laughter).

Right, so you are pretty bad then.

That's for sure. China and the Asian nations were swift in instituting measures to contain my spread, having fallen victim to pandemics in the recent past, notably my cousin SARS in 2002. In hindsight, Western nations were not as quick in instituting measures to control me and they are paying the price.

They certainly are. There have been exponential rises in infections caused by you during the months of March and April 2020. Pretty scary! Tell me, how can we get rid of you?

You can start by adhering to what the WHO and government bodies have been stressing - hand hygiene, avoiding face contact and crowds, social distancing, self isolate if you have flu-like symptoms, engage in moderate exercise and maintain a good diet.

“ ...the jury is still out on whether masks benefit the wearer

To mask or not to mask?

We are straying into the controversial part of this interview now, are we not? Well, masks split opinion. The only consensus amongst you humans is that they prevent the wearer from spreading the infection. There is no evidence that the wearer benefits, though common sense dictates that masks should shield the wearer from droplets I have infected. There are some human experts who say masks may be harmful as they lull the wearer into a false sense of security and potentially increase the frequency of hand contact with the face, but like I said earlier, the jury is still out.

Thanks for clearing that. Can someone who you have infected but doesn't have symptoms transmit you?

Perhaps! Look, I'm just figuring out myself out too! I think the answer is yes, but the chances are lower than in the infected individuals with symptoms.

You think? Well, I think... you'll have to excuse me if I'm not brimming with confidence after some of your answers

I don't mean to sound facetious, but I do need to stress that I am very new, and we are all learning more about me with each passing day. Kindly be patient with me.

OK. Now, what can we do as healthcare professionals to curb the spread of you and your family?

As a hospital, the most important thing to do is to keep your patients and staff safe. You should have dedicated units for patients I have infected. Strategies must be put in place to ensure that normal care for other medical conditions is not compromised. Frontline staff should be given full protection as far as is practical, and more so in theatres during high risk procedures such as intubation. Your hospital infectious diseases team are and should be at the forefront of giving advice and updates to the public regarding my novel pandemic.

Thank you for the time you have taken to enlighten us

No worries. Keep safe, stay healthy and I might spare you...

Faces of Care: Surgical Clinic

The portal through which patients access our services

The surgical clinics are, emergency admissions via casualty notwithstanding, often the first port of call for patients who need access to our services. Keeping the clinics running is an integral part of what makes the Aga Khan University Hospital successful. We go behind the scenes at the surgical clinic, to talk to the team on the ground, in order to establish their roles and determine what we can do to provide them with the support they need.

Catherine: I work as a clinical nurse and love my job. Personalised booking for patients with tighter controls on timing would make my life much easier.

Terry: I am a nurse in the surgical clinic. I think my job would be even better if we made the hours that we are working more efficient to maximise our usefulness to patients and avoid unnecessary delays going home.

Kelvin: I am the patient service coordinator and finance guy. I ensure all services are paid for. The job would be better with more benefits...and incentives!!



George (pictured left):
"I work as a health care assistant (HCA) and I really enjoy the job. I can't complain!"

Regina: I am the surgical clinic wound care nurse, taking care of all the dressings, removal of sutures and minor debridements. Having supplies readily available would make my job a lot more efficient.

Eva: I work as a nurse in the surgical clinic. Compensation would make my job better. And in these times, adequate PPE.

Brenda (pictured right):
" I work as the clinic domestic. The job is nice, but sufficient cleaning equipment would make things better."



Millicent (pictured below):
" I work as unit coordinator making sure patients are registered to the right clinics, and any blocked clinics are actually blocked. Accuracy of communication from clinical staff would make my job easier, as would better time-keeping from the doctors! "



Clinical staff, from left to right: Regina, Terry, Kelvin, George, Catherine, Eva, Jacinta and Michael.

Michael: I work as unit coordinator. My job involves organising clinics and managing the flow of patients. Though the job is satisfying, there are many delays once the patients come to clinic and I'd like to see these reduced.

Jacinta: I am the surgical clinic supervisor. I oversee the clinic operations, ensuring it runs smoothly, with the AKU seal of quality, and that the patients are satisfied. I would like to work hand in hand with the marketing department to help boost clinic numbers.

DoS Research Retreat

What the the surgeons talked about in January 2020



The surgical retreat held at Tsavo Serena was an opportunity for faculty to come together in a relaxed atmosphere and discuss common issues and ways to push forward the surgical agenda. The main focus was research and thanks to coordination by Dr Miriam Mutebi, we were able to invite national experts to share ideas on how to boost the collective academic output.

The importance of contributing to the existing body of knowledge was agreed upon by all. The departmental research committee (DRC) would guide and help faculty execute projects, and provide support for residents. The chair of this committee, Dr Mutebi, opened the retreat by encouraging faculty to view research as a way of solving "pain points" in their clinical practice and outlined a pragmatic approach to health systems research

Professor Luchters from Aga Khan University Hospital and Dr Gershim Asiki from Africa Population and Health Research Centre (APHRC) unravelled the mysteries of success in the research arena with a step by step guide on how to approach projects from developing a rational statement to establishing solid study designs with end points in mind to carrying out the project. Challenges to quality research were aired and discussed at length, and by the end of it a myriad of practical solutions were on the table. After a session on manuscript writing, faculty were all rearing to get started!!

Funding opportunities, an integral part of ensuring quality and sustainable research, were revealed and tips on grant writing given, annotated by the personal experiences of the professors and PhDs, all aimed at maximising chances of success and inspiring faculty to follow suit.

Next, an absorbing group brainstorming activity on possible research topics focussed minds and allowed faculty to apply what they had learned regarding overcoming challenges in research. The session threw up interesting and potentially publishable topics, as well as some which, for a variety of reasons, would struggle to see the light of day! Either way learning ensued!

“ I believe a bit of the reason we're here is to throw little torches out to lead people through the dark.” — Whoopi Goldberg

Good mentorship is as rare as it is valuable. On the education front, it was agreed that we should formalise the mentorship to the trainees to assist them with both their personal and professional growth. Considerations should be given to trainees to choose who they'd like as mentors.

The day ended on a light note, with a bush dinner to celebrate the twin birthdays of Jacque Wanjiru Mbogo and Dr Radovan Boca.

The following day was all about strategy - direction and objectives over the coming year. It was agreed that support of the cardiac surgery programme would be a priority. The proposed new sports and orthopaedic centre, already discussed by the departmental leadership committee, would be refined and presented to the senior leadership team. With plenty of other business to discuss but not enough time to do so, the party disbanded - some travelling in vans, others deciding to try out the "SGR" We all look forward to the next meeting to see how far we have come to achieving our goals.



Keeping abreast: First International Breast Oncoplastic Surgery Workshop

1st.INTERNATIONAL
BREAST
ONCOPLASTIC
SURGERY
WORKSHOP



One out of every 6 women is likely to get a cancer and chances are it is going to be breast cancer. The mainstay of treatment for breast cancers is surgery. Patients in East Africa often delay in seeking care due to fear of losing their breast. In addition, patients frequently get inappropriate or sub-optimal breast surgery that increase the chances of surgical complications. The aim of Oncoplastic surgery is to remove the tumour safely and give patients a good aesthetic outcome. In order to improve the quality of breast surgery provided in the region, our institution was proud to host, for the very first time in Sub-Saharan Africa, the first international breast oncoplastic surgery workshop in August 2019.

Conceived by **Dr Miriam Mutebi**, the 'Breast Surgery Preceptorship Education and Outreach Summit' brought together key partners from the Association of Breast Surgery (UK), the MD Anderson Cancer Center, the International Union for the control of Cancer (UICC), the African Organization for Research and Training in Cancer (AORTIC), the Surgical Society of Kenya, the Pan African Women's Association of Surgeons, the Ministry of Health and the Aga Khan University Hospital. This surgery workshop brought together 30 renowned international faculty, regional and local breast surgeons and plastic and reconstructive surgeons as faculty, with a common goal to improve the quality of breast surgical services in the region.

The three-day summit had 40 participants made up of local surgeons, general surgery and plastic surgery residents from across Kenya including our own AKU senior surgery residents and regional surgeons from Kenya, Sudan and Uganda.

A multidisciplinary team, comprising oncologists, pathologists and radiologists, is key to practicing safe oncology surgery. Day 1 involved didactic lectures and case discussions with the surgeons and a multidisciplinary team supported by our AKU faculty

from pathology and radiology (**Dr Shahin Sayyid and Dr Rose Ndumia**), external local faculty (**Dr Andrew Odhiambo**) and other international faculty. This was followed by practical sessions on breast specimen handling, interpretation of breast imaging and novel techniques for breast surgery. The second day was dedicated to a cadaver-based workshop, giving surgeons a safe place to learn. Short talks on basic oncological and breast reconstructive procedures were followed by live marking on volunteers and then a chance for the delegates to perform the procedure on cadavers under supervision of the faculty.

For the last day of the training, the local hosts **Dr Miriam Mutebi** and **Dr Radovan Boca** performed a series of live surgeries at AKUH involving both benign and malignant breast conditions, with the international faculty, and the live operations were relayed to delegates at the conference site. A running narrative was provided by the faculty and this facilitated discussion on the techniques used and the rationale for the chosen procedures.



Dr Miriam Mutebi and Dr Radovan Boca with the Oncoplastic Surgery International faculty and participants

Dr Miriam Mutebi and Dr Rajiv Dave performed the first MagSeed localization procedure in Kenya - a novel way of removing lesions in the breast that are not palpable, aided by peri-operative support from radiology by Dr Rose Ndumia and pathology support from Dr Shahin Sayyid, which helped to underscore the benefits that a robust multi-disciplinary team gives, and that enables more complex breast procedures to be performed at our tertiary facility.

The feedback from participants was overwhelmingly positive and there are plans to continue to scale up this training to improve breast surgical services in the region. The organisers are grateful to the department of surgery leadership and residents, the entire theatre staff, radiology and pathology and to the hospital which helped to support 6 patients through the welfare program, to receive these critical surgeries.

Resident's Corner

The Nkubu elective experience



Ken Muthua Year 4, DoS

In the county of Meru, 210 km from Nairobi, on the slopes of Mt Kenya, lies Nkubu. Often driven through without a second glance by many a traveller on the way to its more renowned neighbour Meru, this unassuming town hides a healthcare gem - Consolata Mission Hospital. It was founded by the Consolata Missionary Sisters in 1949 as an outreach centre providing essential health services to people in the area. From a 'Mukui' tree that gave the early centre shade, the service evolved; guided by a steadfast vision, strategic direction, the committed leadership first by Consolata sisters and more recently by the Archdiocese of Meru, the hospital has grown exponentially.

Consolata Mission Nkubu is a Level IV facility offering in-patient and outpatient health services. It boasts 7 in-patient units; surgical, medical, paediatric, new-born, maternity, gynaecology and a private amenity ward, totalling a 270-bed capacity. There are four operating rooms where elective and emergency operations are performed for various surgical and gynaecological conditions.

I rotated for 6 weeks in the Surgical Unit under the supervision of Dr Denis Otim, an alumnus of AKU and one of my former chiefs. Dr. Kiboi, another surgeon that frequently practiced at the hospital, was also at hand to offer advice. Together they provided the majority of surgical services. Other surgeons offered ENT, maxillofacial, spine and complex orthopaedic specialty services.

The case mix was rich under general surgery - laparotomies for trauma and severe abdominal infections, palliative feeding tubes for advanced malignancy, gastrojejunostomies for antral strictures; and the 'bread-and-butter' cases such as thyroidectomy, hernia repairs and excision of small lumps. The facility lacked laparoscopic equipment and therefore, I was able to gain valuable experience in open cholecystectomies



and prostatectomies. Orthopaedic cases were mostly fixation of fractures with implants though disarticulations and amputations for trauma and infection also featured.

The Surgical Unit was able to host to the Kenya Association of Urological Surgeons from 24th-26th Feb. an event that saw over a dozen specialised urological surgeries performed by various urologists from across the country including AKU faculty members Mr Samnakay and Mr Thakkar. The hospital theatre team were able to accommodate laparoscopic equipment brought in for procedures such as trans-urethral resection of prostate. Other procedures such as open nephrectomies and urethroplasties were also handled with expertise by the team, who demonstrated proactivity to help and willingness to learn.

The hospital has an in-house specialist team comprising a physician (Dr Mutwiri Mwikamba, AKU 2017), a general surgeon (Dr Denis Otim, AKU 2018), a gynaecologist Dr Kimani Ndung'u, AKU 2017) and a paediatrician (Dr Kagucia Wambui, AKU 2019); all of whom are alumni. Under their collective supervision they have started an internship program with daily classes before the rounds where all cadres - nursing students, clinical officer interns and medical officer interns - are expected to present cases, morbidity and mortality sessions and journal club discussions... just like we do at AKUH!

Consolata, for all its merits, still experiences challenges. Being a Level IV facility, it lacks the equipment and amenities that would elevate the complexity of cases handled. ICU and critical care facilities are being built to accommodate such complex cases but at present the facility cannot care for these patients. The absence of laparoscopic equipment, while advantageous for the rotating resident, means that certain procedures are not available.

The KAUS camp demonstrated that the theatre personnel are capable of utilising the equipment. The hospital and consultants have done well to collaborate with other facilities to ensure most patients are catered for. This however can mean unclear timelines especially where urgent reviews are required. Thankfully, these cases are few.

Consolata Mission Hospital Nkubuis a forward-looking facility unafraid to tackle the challenges of the present while always striving to be a comprehensive health facility. The elective rotation provided an all-round experience and a valuable complement to the training curriculum. A strong team of AKU alumni have shown the quality that can shine through and inspires us to appreciate the role that we may play in future!

BOUQUETS & BARBS - *What's right, and what's wrong - contd.*



progression throughout the course. This we also had a brief demonstration of replacement in a porcine heart model by Dr Peter Ogutu, consultant cardiac surgeon. It was a testament to the broad range of skill sets that can be taught and trained using a well stocked skills lab and motivated teachers.



Parking at Aga Khan Hospital has always been high on the patient dissatisfaction list, and things are not made any easier by faded tickets making paying using electronic means impossible. Unless one has change then one is stuck, further frustrating patients whose experience we are trying to improve. InSURGENCY would like to ask the hospital administration to dictate to KAPS so that they improve the service they offer.

AKUHN Basic Surgical Skills 2020
By Stanley Mugambi
Consultant Paediatric Surgeon

The three day surgical skills course 2020 held at the University of Nairobi skills centre was well attended and valuable for trainees and faculty alike. The delegates, mainly trainees in the surgical disciplines, obstetrics & gynaecology, with a few from the emergency department and family medicine, were brought up from basic to intermediate level through the duration of the course which was based on clearly defined skills. These were first demonstrated, and immediately afterwards replicated by the delegates who practised under close faculty supervision.



Of utmost importance, the feedback from the trainees was encouraging and insightful, and the faculty loved it too! We all look forward to the opening of the new on-site skills lab. I would like to pass on my sincere thanks to all the faculty who helped make the course a success, and the support from the department of surgery for making it all possible.



The DoS exam "retreat" this year was held in the Doctors Park, a stone's throw away from the hospital and a world away from last year's venue, Ol Pejeta in Nanyuki, due to the Covid restrictions. InSURGENCY appreciates Mukuhi Ng'ang'a and Stanley Mugambi for tirelessly working to make it as smooth as possible.

There was a gradual increase of skill acquisition - from the initial knot tying and safe instrument handling on day one to bowel anastomosis, vascular repair and ureteric re-implantation at the end. The simulation was made as close to reality as possible by use of fresh animal tissue. There was also directly observed procedural skill assessment of the participants by the faculty, and to continually improve, the trainees got to assess the course through feedback forms.

Pamoja twaweza!



The University has managed to move all academic meetings seamlessly to Zoom despite the difficulties, so the residents have been able to carry on with their learning uninterrupted. The InSURGENCY team applauds this.

During the Covid-19 crisis the hospital remained open and even set up a bespoke unit to house infected patients in anticipation of an influx. In addition, staff were trained on roles and responsibilities when dealing with Covid positive patients. InSURGENCY would like to thank the administration for their preparedness, and in particular Dr M'Bongo, Consultant Ophthalmologist, and Dr Pauline 'Kui' 'Thang'a, Consultant Anaesthetist, for all their hard work.



Over the three days, we piloted a more specific assessment form which looked in detail at the technical steps that need to be emphasized in the training. The goal of this new approach for the supervisor to maintain focus on what is safe and standard while also providing an objective measurement of trainee



Next issue!

Look out for the following in the next edition of InSURGency:

- We examine what the COVID pandemic means for the future of healthcare in Aga Khan and Kenya*
- Meet more of the surgical faculty teams*
- Illness - luxury or misfortune?*
- Bouquets and barbs, follow ups and much more!*

*InSURGency would like to encourage readers to send in feedback, comments and observations to the editors on: njalalle.baraza@aku.edu & miriam.mutebi@aku.edu
They will be considered for publication.*