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ENT UK as a charity exists for “the advancement for the public benefit of education, training and research in the fields of otorhinolaryngology - head and neck surgery; the relief of patients suffering from diseases in the ear, nose and throat and related areas.” The Global Health Committee helps greatly in ensuring that this work transcends man-made boundaries to improve the quality of care for patients all over the world and in doing so improves international links that UK ENT has with the commonwealth and the rest of the world. This current pandemic has taught us so many things but most importantly the virus has been a great leveller and does not respect the sanctity of wealth and privilege.

As President, ENT UK I am happy to welcome this edition of the global health journal and strongly support the efforts of the committee and all our members in the work they do around the world.

“The essence of global health equity is the idea that something so precious as health must be viewed as a right”

Paul Farmer

Professor B Nirmal Kumar,
President, ENT UK
ENT UK Global Health Committee

Vijay Pothula – Chairman
I was appointed as a consultant ENT and Head and Neck Surgeon in 2001 and work at WWL and Manchester Foundation Trust sites. I have a keen interest in humanitarian work and have conceived, designed and started the Shravana project in Hyderabad, India in 2006. I have assumed the chairmanship of ENTUK Global Health in 2018. It is our endeavour, in collaboration with British Society of Audiolgy, British Charities, Professionals and Industry, would like to help countries where people have no recourse to any help when affected with deafness or any ENT disorders. We intend to help create services and train their ENT, audiology professionals and make them self-sufficient.

Nicholas Eynon-Lewis – Vice Chairman
Nick is a Consultant ENT surgeon at Bart’s Healthcare NHS Trust. He has had a longstanding interest in overseas medicine. He spent a year in Cape Town on a TWJ fellowship and has been involved in various ENT projects in Africa. He is the lead for undergraduate education at Bart’s and organises and lectures on various postgraduate courses. He is the Vice Chair of the Global Health Committee
Mr Matthew Clark Consultant Otologist, Gloucestershire Royal Hospital and Education & Training lead for ENT UKs Global Health Committee

Matthew was a trainee in Oxford before undertaking a fellowship in Otology & Neurotology in Vancouver, Canada. He was appointed as an Otologist in Gloucester in 2009 where he is a lead in training and education. This role now extends to ENT UKs Global Health Committee. He has worked in Nepal and Uganda on ear camps and courses, whilst also helping to establish and mentor a post-CCT fellowship programme in Cambodia. Research includes the development of an ear surgery simulator designed for low-resource settings and he is currently co-authoring a guide on delivering and developing Otology in remote or resource-poor countries.

Mr Sanjiv Kumar MS, DM, FRCSI, FRCS (Glasg), FRCS(ORL-HNS)

I have been a consultant at University Hospital of North Midlands NHS trust since 2012, where I specialise in adult and paediatric otology and have been active role in education and training. I am interested in global health and equality of access to medical care and training across the world. I have been involved in humanitarian care doing ear camps in Uganda. I have been active in setting up and teaching primary care ENT to clinical officers in Uganda. As a member of the ENT UK’s Global committee, I am keen on co-ordinating and helping global charity work undertaken by UK surgeons abroad.

Mr Sanjay Verma  MB, BCh, MA, FRCS(ORL-HNS), PhD (Cantab)

Mr Sanjay Verma is an experienced Consultant ENT surgeon at the Leeds Teaching Hospitals NHS Trust and Nuffield Leeds Hospital, where he has a dedicated adult and children’s ENT practise. He specialises in ear, nose and sinus problems. Over the last decade he has been instrumental in developing laser ear surgery, endoscopic sinus surgery and coblation tonsillectomy techniques in the region.
Robin Youngs MD FRCS
Robin is an ENT Consultant Surgeon in Gloucestershire who has an interest in the treatment of deafness. He has been involved with deafness in developing countries for 25 years and is a Director of The Britain Nepal Otology Service. In addition, he established the Mandalay School for the Deaf Charity, which supports deaf children in Myanmar. He has close connections with ENT surgeons in Myanmar and Nepal, having organized numerous educational activities.
He was the first Lead for Global Health for ENTUK and is a Past President of the Otology Section of The Royal Society of Medicine. He is also Emeritus Editor of The Journal of Laryngology and Otology, an international publication. His MD degree from the University of London was awarded for research into chronic ear disease. He has a Postgraduate Certificate in Global Health Policy from the London School of Hygiene and Tropical Medicine.

Baveena Heer
Baveena is currently a medical student at GKT School of Medical Education, King’s College London, and an aspiring ENT surgeon with an interest in Global Health. She leads a multi-disciplinary research group at King’s College London that is focused on developing sustainable technological interventions for current ENT problems in low-resource settings. She is a member of the Global OHNS Initiative, where she works within the Racial Disparities and Gender Disparities research groups. She is also the InciSioN UK representative for King’s College London, where she works to promote safer access to surgery for all through research, education and advocacy. She has previously been a part of Global Brigades at King’s College London, during which she made several brigades to Central America.

Cheka Spencer
Cheka is currently a senior ENT trainee. His training has taken him from London to the West Midlands. His interest in teaching led to an award by the Higher Education Academy. He has garnered experience of andragogy in both undergraduate and postgraduate settings. He is committed to humanitarianism and has developed many links around the world. He has participated in ear camps in South Africa. He is keen to develop further activities around the world in particular Sierra Leone, his ancestral home.
Dulani Mendis B.Sc., DHMSA, DO-HNS, MBBS, MBA, FRCS (ORL)
Miss Dulani Mendis is an West Midlands trained Otolaryngologist specialising in Laryngology, Rhinology and Facial Plastics appointed as a Consultant in Kettering General Hospital. She has completed a Royal College interface fellowship in Cosmetic and Reconstructive Surgery and a fellowship in Toronto, Canada in Benign Head and Neck and Laryngology.

She has an interest in Health Policy, Health Inequalities and Clinical Leadership, Safety and Governance and has completed a Health related MBA at Keele University with distinction as a trainee and is currently completing a distance learning Global Health Postgraduate certificate leading to M.Sc. at the London School of Hygiene and Tropical Medicine due to an interest in Global Health and a desire to tackle health inequality.

Mahmood Bhutta DPhil FRCS (ORL-HNS)
Mr Mahmood Bhutta is academic lead in ENT Surgery at Brighton & Sussex University Hospitals (UK) and founder of the BMA Medical Fair and Ethical Trade Group. He is a consultant ENT surgeon with diverse interests, particularly relating to global inequity. He was formally Phizackerley Senior scholar at Balliol College Oxford where his DPhil was in genetic susceptibility to otitis media. He works with national and international partners on labour rights concerns in healthcare supply chains. He also works on global ear disease, and has delivered training to health workers in Cambodia, Nepal and Uganda, and is a consultant to the WHO program on prevention of deafness and hearing loss.
Ms. Kate Stephenson FRCS ORL-HNS(Eng.), FC ORL (SA), MMed Consultant Paediatric Otorhinolaryngologist, Head and Neck Surgeon Birmingham Children’s Hospital

Kate is a Paediatric Otorhinolaryngologist at Birmingham Children’s Hospital. Her interests include paediatric head and neck, airway and voice. She trained in both the UK and South Africa and completed a fellowship at Great Ormond Street Hospital. Kate is the Networking Chairperson for the Young Otolaryngologists of IFOS and has reviewed for a number of ENT journals. She has also created Open Access educational materials in collaboration with the University of Cape Town. Kate is currently developing a global health section for the ENT UK e-lefENT website with Maha Khan.

Ms Maha Khan

Maha currently trains in Manchester. Her clinical interests are neurotology and skull base surgery, and translational and applied research. She has raised funds for and volunteered with ENT charities in both the UK and abroad, and has an interest in the diagnosis and management of paediatric hearing loss in a Global Health setting. Maha is a member of the ENT-INTEGRATE committee, and President of the North West Trainee Research Collaborative. She works to promote research and Global Health to students and Foundation doctors through her work with the ENT-UK’s Student & Foundation Doctors in Otolaryngology group. She lives in Cheshire with her husband and baby boy, and when not working, is happiest outdoors.

David Strachan FRCS (Eng) FRCS (ORL), Dip HSM

Mr Strachan is a Consultant Ear Nose & Throat Surgeon with a special interest in Otology and Rhinology. He was appointed as a Consultant ENT Surgeon at Bradford Royal Infirmary in February 2000 and prior to that had trained in the Yorkshire Regional Rotation with 2 specialist training fellowships in France (Bordeaux, Cannes & Nancy). Mr Strachan is one of the regional Cochlear Implant surgeons working in the Yorkshire Auditory Implant Centre. He has presented his experience at meetings all over the world and publishes regularly in peer reviewed journals. In the last 3 years he has helped develop otology services in Malawi (7th poorest country in the world) including, with charitable support, a cochlear implant programme. He also plays golf regularly and harmonica in a blues band!
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Fig 1. Ghana College of Physicians and Surgeons Graduation Day 2019. Dr. K. Baidoo far right, Prof. E. Kitcher and Dr. Kofui Searyou far left and myself with the residents.
Memories of people and places, hopes for the future

Prof. David Howard, BSc, FRCS, FRCS(Ed), Hon GCPS.

Prof. of Head and Neck Oncology, Imperial NHS Trust Hospitals and Hon. Consultant ENT/Head and Neck Surgeon, Imperial and UCLH NHS Trusts, London.

I was born in Birmingham in 1947, the first year of the major UK polio epidemic, which continued in the UK until the late 1950s. “Lockdown” is not a new experience for me.

In the first half of the 20th century, polio was one of the most feared diseases in industrialized countries, paralysing hundreds of thousands of children worldwide every year. I was under strict instructions from my mother when I started school in 1953 to walk the short distance to school and then return home. Through 1954 and 1955 I remained under her “lockdown” conditions. Dr Jonas Salk visited the UK in 1955 and my mother took a great interest in this event. I was immunised in 1956 and my freedom began!

In 1957 there was a major outbreak of poliomyelitis in Coventry. I thoroughly recommend anyone reading this article
to take a few minutes to read Gareth Millwards’ article in *Contemporary British History, July 2017*. The article is entitled “A matter of common sense - Coventry poliomyelitis epidemic 1957 and the British public”\(^1\). You will see that we frequently fail to learn from history and that the actions of the national press, medical experts and politicians, plus the debates over policy at both local and national level are similar to those that we are experiencing in the current COVID-19 pandemic.

So why would I begin this article mentioning my childhood experience of the polio epidemic? Well, unfortunately, there remain many similarities to my childhood experience and we have a long way to go towards achieving any degree of equality in Global Health. Our daily news/media is full of the development of vaccines. When will they be available? How many doses will be available in the UK? How many millions has our wealthy government ordered? Who will get them first? I need hardly emphasise the point more, nationalism and a self-interested attitude for a truly global health crisis.

Have we eradicated polio yet or are children still dying from it? It took a further 20 years until the 1970’s when surveys showed the disease was also prevalent in poor countries. It was not until 1985 that *Rotary International* launched a global effort to immunise the world’s children against polio. In 1988 the *Global Polio Eradication initiative* was formed and at that point polio was still paralysing more than 1000 children worldwide every day. Fortunately, since then more than 2 ½ billion children have been immunised and 200 countries and 20 million volunteers have achieved this. Currently only Afghanistan and Pakistan have isolated cases. So, whilst everyone involved in the GPEI initiative is to be congratulated by us all, it has taken the whole of my lifetime to reach this point. The wealthy countries of the world could have achieved this much earlier if people in those countries really committed to Global Health.

Polio is, of course, just a single example of the many diseases where the wealthy countries of the world could much more rapidly improve the lives of those in the 145 low and middle-income countries (LMIC). Depending on how it is measured the UK is still the 6\(^{th}\) largest economy in the world.\(^2\)

I qualified in 1972 and trained in general surgery, orthopaedics and A&E for the first six years before beginning again at SHO level and training through ENT for a further six years. I had developed an interest in Global Health as a medical student and during my ENT training was greatly influenced by Professor Sir Donald Harrison who was the leading Laryngologist and Head and Neck surgeon at the Royal National Throat, Nose and Ear Hospital in London. He was head of the academic Professorial Unit and was one of the first people in ENT to travel the world on a regular basis to teach, mainly by lecturing at national and international conferences. I had thoroughly enjoyed teaching at all levels during my training and when the time came in 1983 to apply for a consultant post, I decided to apply for a Senior Lecturer post, rather than an NHS consultancy. I certainly had no great claim to academic prowess at the time, nor indeed subsequently, but the idea of six weeks study leave a year and the ability to travel, teach and work in other countries was very attractive to me. Apparently, however, this idea was not attractive to my contemporaries, as no one else applied for the post.
I travelled to teach and work overseas in many countries throughout the 80’s and 90’s taking several weeks each year, and on occasions being accompanied by my family. I built up a substantial collection of slides and lectures, not only teaching, but also learning a great deal about our discipline from the friends and places that I visited. From the outset I decided to try to undertake outpatients and operating sessions as often as possible, in addition to teaching in these countries to nurses, medical students and postgraduate staff. I would thoroughly recommend it as a way of surviving in our fantastic UK Health Service. Yes, I use the word “fantastic” advisedly, for if you travel around the world it will make you far less critical of our UK system. It will give you a much more balanced view of life and increase your ability to cope with whatever difficulties you encounter in your daily work here in the NHS

The Professorial Unit at the Royal National Throat Nose and Ear Hospital had hundreds of visitors and many Fellows over my time there and I’m delighted that many have remained lifelong friends. However, by the late 90’s, I was becoming increasingly concerned by the fact that so many of the overseas visitors and Fellows from LMICs did not return there once their training had been completed. Whilst I fully expected the Australian, American and Fellows from other wealthy countries to return home, I became increasingly disappointed to see so many from the LMICs obtaining employment in the wealthy countries of the world, a situation which remains a problem to this day, both in terms of nursing/medical staff. Of course, there are many reasons why this is understandable, but the COVID-19 pandemic has once again emphasised the inequality not only of Global Health in terms of medications and equipment, but of trained staff availability in LMICs. Please take the time to read Johan Fagan’s excellent article and remember it, discuss it with your friends, colleagues, politicians and any other influencers in your life.

I made a decision in the late 90’s that I would spend more time working and teaching in hospitals overseas in order to improve their local facilities, training and progression of trainees to consultants in those countries. I also decided to take as many young people with me such as medical students and ENT trainees, as well as ENT consultant colleagues, speech therapists and, most importantly on recent trips, anaesthetists. Fortunately for me, the remarkable Emmanuel Kitcher, nowadays Professor Kitcher, had finished his UK training in Scotland and the North East of England deanery, returning to Ghana in 1998 to be appointed as a lecturer at the Korle-Bu teaching hospital and Medical School in Accra. Emmanuel set out to pursue his vision of developing the ENT Department and increasing ENT training and services throughout Ghana. I have been fortunate to assist him throughout this period of time and it has been a truly delightful 20 years during which I have been able to help Emmanuel in the sub speciality training of his fantastic group of young consultants covering all aspects of ENT. None more so than Dr Kenneth Baidoo, the current head of department and the senior laryngology and head and neck surgeon in Ghana. Kenneth was also supported to undertake the Karl Storz Head and Neck fellowship at the University of Cape Town with Johan Fagan. Last year Dr. Kafui Searyoh, who I have known since I taught him as a medical student, has completed the Karl Storz Rhinology and Skull Base
fellowship with Prof. Darlene Lubbe in Cape Town and is now a full-time ENT consultant in Korle-Bu. (Fig.1)

Some of you may remember the Global Health article covering Emmanuel’s visionary leadership of ENT, Audiology and Speech Therapy at the Korle-Bu Hospital and Medical School, which was published in ENT and Audiology News in October 2019. What is so pleasing to me is that Emmanuel’s phenomenal leadership, progress and department building (not just in Accra but throughout Ghana) is a wonderful example of the multiplier effect of providing good postgraduate training to doctors within their own country, using the equipment and facilities that are available to them. Under responsible leadership such as Emmanuel’s, it is up to those of us from the wealthier countries to build up the equipment and facility base and to teach appropriately as that materialises. It is also extremely important when donating equipment of any type that methods of maintenance and repair are available with necessary freight costs and charges covered by our charities to enable equipment to be returned for repair or replacement to European or American manufacturers.

It would take a book to describe the wonderful time I have had teaching and operating in Ghana over 20 years, usually twice a year, occasionally three times. The myriad of cases from neonates to 80 year old adults, all aspects of ENT/ Head and Neck, an amazing variety of pathology, both medical and surgical; some truly remarkable patients by anyone’s standards. Thoroughly enjoyable ward-rounds, fascinating outpatients (Fig.2), fun lectures with medical students and postgraduates desperate to learn, remarkable operating sessions under a variety of “interesting” circumstances but with fantastic cooperation from a relentlessly developing Department of Anaesthesia (Fig.3). Such to say that by 2020 Emmanuel has built a department with his colleagues that is the equal of many in the UK, providing a range of ENT medicine and surgery, together with increasing multidisciplinary work with maxillofacial surgery, neurosurgery, paediatrics, general surgery and radiotherapy/oncology. (Figs 4a,b;5a,b;6a-c)
Fig 4 Five month old infant with extensive bilateral frontal meningo-encephalocele, a) pre and b) post craniofacial operation.

Fig 5a) Older child with a smaller similar lesion and b) during treatment by a midfacial

Fig 6 a&b) 65 yr.old lady with a 20 year history of a low-grade fibrosarcoma preoperatively and c) 3 months post-op at the time of decannulation of her tracheostomy.
I am of the same generation as Neil Weir, the consultant ENT Surgeon at the Royal Surrey County Hospital Guildford, UK who established BRINOS in 1988, along with the late Dr LN Prasad who was the senior ENT surgeon in Kathmandu. Robin Youngs wrote a wonderful article covering this work in the first edition of *ENT UK Global Health* in 2018. Many of my colleagues, both nurses and doctors, too numerous to mention, have worked in the ear camps that have been run in Nepal. A wonderful, but poor country, that I have visited since 2007 as part of the Xtreme-Everest Medical Research team, studying the physiology of hypoxia at high altitude, which has enabled us to progress Critical Care Medicine, a discipline so relevant in the current COVID-19 pandemic.

All those people that know me will automatically associate me with Laryngology and Head and Neck surgery. However, Emmanuel trained as an otologist, so I was conscious of the need to support him in otology and audiology when I first went to Korle-Bu two decades ago. I had a full set of otology and audiology slides, accumulated over many years of teaching and had maintained an interest in these areas to keep myself up-to-date. I mention this only to encourage young people to maintain a general interest in the whole of our extensive speciality of ENT, even if you, yourself, are beginning to subspecialise. And keep teaching materials from your own training days to enable you to teach outside of your subspeciality when undertaking Global Health work.

I would also encourage you, if at all possible, to live on campus in the hospitals where you work and teach. (Fig. 7) Forget the local hotels, whatever their attractions, join in with the emergency work and assist the young residents first hand, and do not forget to take every opportunity to encourage the nurses and any paramedical staff with your teaching. If you wish to work in LMICs, it is vitally important that you maintain or revisit your airway skills, including intubation, cricothyroidotomy and tracheostomy. Do not be afraid to ask your anaesthetic and ENT colleagues to assist you with this if you have not had recent experience after going down an otological or rhinological career pathway.

Aside from my time in Ghana, West Africa, I have worked regularly in Tanzania, East Africa, over the last six years. It was Dr Tom Adams, NIHR Academic Clinical Fellow in Emergency Medicine in Cambridge who had spent

Fig 7 Deans Guest House on campus at the Korle-Bu Hospital.
his medical student elective at the Kilimanjaro Christian Medical Centre hospital (KCMC) in Moshi who first told me about the hospital. Tom’s experience interested me and there was obviously a young ENT department there. Quite by accident, when I enquired, I discovered two of my longstanding friends and former Fellows from the USA, who had spent the year of 1983 on the Professorial Unit at the Royal National Throat Nose and Ear, were now teaching and supporting the department from the USA. It’s a small world!

So I went to join Professors Tom Robbins and Gayle Woodson to assist the three young consultants, Dr Peter Shija, Dr Desderius Chussi, and Dr Philbert Mtenga and their new residents. Additionally, we liaise and work regularly with Dr. Neils van Heerbeek from the Radboud Hospital in Nijmegen, who has been involved with KCMC for over a decade. Despite being great friends, we try to minimise the overlap of our visits, thereby providing a rota of many weeks of teaching undergraduates and postgraduates throughout the year. Gayle and Tom, Niels, Valerie Lund and I, all have our own long-standing charities. Valerie and I formed the Rhinology and Laryngology Research Fund in 1986 and we have used our charities extensively to introduce and support new equipment and facilities in Ghana and Tanzania.

Now I am delighted to report that a whole new young generation has joined us in this work. To name just a few, Matt Lechner, ENT SpR 7, North Thames (presently undertaking a Fellowship in Stanford, California) started the Association for the Global Advancement of ENT (AGA-ENT) charity in 2015, raising money from Karl Storz for equipment and Global Health visiting short term Fellowships.(Fig.8a) Tom Hampton, ENT
SpR 6, Alder Hey Children’s hospital (Fig.8b) and Aleks Kotwica, Anaesthesia trainee, Lister Hospital, Stevenage are the current Rhinology and Laryngology Fund Fellows. (Fig.8c) Tom is just commencing his PhD in Global Health. Andrew Lau, SpR 7, Liverpool University Hospitals, has created the Excellence in ENT Education charity (ExcellENT) which brought Dr. Kenneth Mlay, ENT resident, from KCMC hospital to Liverpool for further training.

The confines of this article do not allow a comprehensive account of our work in KCMC but in 2018 we set up a Paediatric ENT and Anaesthesia Skills course with Dr Peter Shija as the tireless local organiser, with contributions from UK trainees plus myself, Mr. Nimesh Patel, Consultant ENT/Head and Neck surgeon from Southampton and two experienced paediatric ENT consultants, Michael Rothera, formerly of Alder Hey Children’s Hospital and Ian Lilley from the Evelina Hospital, Guys, London. We always live on the hospital campus, which lies at the foot of Mount Kilimanjaro. When the sky is clear, the walk to work in the morning and the sunsets in the evening are truly breathtaking. (Fig.9 & 10)

Africa has a population of approximately 1.2 billion people but around 95% still do not have access to safe and affordable surgery⁵. In fact, with increasing improvements in the treatment of HIV, malaria and tuberculosis, deaths within 30 days of an operation in LMIC countries are now greater than from these three diseases combined⁶. More than 80% of sub-Saharan Africa has less than one specialist anaesthetist per 100,000 of the population⁷ and the lack of properly trained specialist anaesthetists, surgeons and obstetricians is a major issue. ENT operations under general

---

Fig 8b) Tom Hampton teaching at KCMC.

Fig 8c) Aleks Kotwica teaching at KCMC.
Anaesthesia are frequently the first operative procedures that children undergo worldwide and ENT surgeons perform more paediatric surgery in many hospitals than any other surgical department.

The KCMC in Moshi, Tanzania has 630 official beds, approximately 90 canvas beds, 1300 staff, and 1850 students. It is the referral hospital for the Kilimanjaro Region with an intake area of over 15 million people in Northern Tanzania. The hospital is extremely busy and additional beds are frequently to be found in corridors and any available space.

In 2018 KCMC hospital lost its only permanent Consultant Physician Anaesthetist. The general anaesthesia in the hospital was performed by approximately twenty-five nurse anaesthetists. The ENT department performs about twenty adenotonsillectomies and an average of four emergency foreign body removals per week. Unfortunately, adverse events in theatre and recovery were frequent, hence our desire to set up the Paediatric ENT and Anaesthesia Skills course. ENT paediatric surgery in KCMC forms over 80% of the entire paediatric surgical workload of the hospital undertaken under general anaesthesia. When completed successfully, these procedures save lives and significantly improve the quality of life of the children. Tonsillectomy is life saving and the right heart failure can be completely cured! Foreign body inhalation or ingestion, if untreated, causes severe morbidity and mortality. Severe obstructive apnoea, respiratory tract infection, cor pulmonale and life-threatening neck abscess formation can accompany advanced adenotonsillar disease in Africa. Even in Ghana, I have regularly seen children

Fig 9 Breakfast visitor in the garden of our KCMC campus

Fig 10 The walk to work after breakfast!
with cor pulmonale presenting de novo to the Korle-Bu hospital.

It is not possible to increase the width and complexity of ENT and Head and Neck Surgery without improving the quality and safety of anaesthesia and the operating theatre safe working practices. ENT surgery involves sharing of the airway by anaesthetist and surgeon, often under difficult circumstances so ENT procedures make an ideal practical choice for combined teaching in the two disciplines.

Doctors and nurses in training and post specialist qualification in the UK undertake an increasing number and types of teaching courses. In stark contrast, only a single doctor from our first two groups of course participants had undertaken a similar course (provided outside Africa). Additionally, none of the participants had previous experience of using simulation manikins. Dr. Aleks Kotwica has written a full report of our skills course, which has been accepted for publication in the journal ‘Tropical Doctor’ and a formal report was provided to ENT/UK.

We aim to improve the capacity in KCMC to respond to all anaesthetic and peri-operative emergencies. We sincerely hope that this will have a knock-on effect when the doctors, nurses, and nurse anaesthetist subsequently work in the main theatres and other surgical departments where paediatric procedures are undertaken. Departmental-level interventions can lead to facility level improvements.

The paediatric ENT and Anaesthesia skills course will be run twice a year and be modified as necessary. It needs to produce lasting change and long-term partnerships with the African doctors and nurses in KCMC. The aim is to increase the safety and quality of overall healthcare throughout the hospital and additionally improved outcomes in all children treated there. This ultimately gains the trust and engagement of parents, children, community health workers and referring doctors at all levels of the population in Northern Tanzania. After the first course we were asked to repeat the teaching in the Paediatric department and in the future in Accident and Emergency.

Post-graduate surgical courses and continuing education are not yet well established in sub-Saharan Africa. This type of education needs to be appropriate for each country’s needs and should ultimately be led and devised locally. Our hope is that long-term, Dr. Peter Shija, his colleagues and nurses, at every level, will deliver this type of medical education, building reputations for their teaching courses that can draw participants from across the continent.

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References

2. IMF World economic outlook database, October 2019
terest must not exploit medical work- 
forces from low- and middle-income 
countries. S Afr Med J Apr 2020. ISSN 
2078-5135.

samj/article/view/12905/9186

5 ENT & Audiology News SEPTEMBER/ 
OCTOBER 2019;28:4 www.entandaudi- 
ologynews.com

6 Meara JG, Leather AJM, Hagander L, 
Global Surgery 2030: Evidence and 
solutions for achieving health, welfare, 
and economic development. Lancet 
2015;386:569–624.

7 Nepogodiev D, Martin J, Biccard B, 
Makupe A, Bhangu A, Ademuyiwa A, 
et al. Global burden of postoperative 
death. Lancet 2019;393:401

8 Biccard BM, Green-Thompson L. 
Socially accountable anaesthesia: 
matching human resources with com- 
munity need for safe care. Anaesthesia. 

9 Tanner S. Trends in children’s surgery in 
England. Archives of Disease in Child- 
hood. 2007;92:664-7
The operating room at the Ear Centre
Developing a specialist Ear Hospital and Community ear care service in a mixed urban and rural area of Nepal

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Introduction

A subspecialty ear hospital was conceived and built in Nepal, opening in 2015. Arising from extensive experience in the country and multiple ear camps, to supplement the existing services and training available. In particular, to reach disadvantaged people. The process is described with the ethos, practicalities and difficulties.

Basis for the programme

Historically this project arose from experience running ear camps in hilly and mountainous areas in the poorer parts of western Nepal. The author had previously also worked full time in a hospital for leprosy affected persons in the 1980s and set up the ENT, Head and Neck surgery department in a Nepali government, regional hospital
in Pokhara in the 1990s. It became obvious that aside from the very many cases of advanced ENT, H&N and maxillo-facial disease, there was a large burden of Chronic Suppurative Otitis Media and hearing loss. Many of these patients could not afford to leave their subsistence farms to attend the hospital. Much ear disease appeared to be preventable or treatable, even surgically, on an itinerant basis.

The ear camps that developed between the years 1993-2015 provided a limited service to many tens of thousands of patients. Around 10% of the patients seen for advice and medication also had surgery, often complex, in extensively diseased ears. In the latter years many patients were also fitted with hearing aids. In all over 50 camps were held, often in very remote areas, with considerable logistical challenges. However, it was always obvious that this charitable service, though in the short term much valued by the local people, was altogether inadequate to the need and was not sustainable long term. The country was also changing as roads, communications, health services and medical skills were advancing, despite many natural disasters and political turmoil.

Some of the several hundred volunteers who had helped with these camps began to discuss the development of a more permanent year-round facility, offering a wide range of services for all kinds of ear problems, and importantly, making this a centre to assist training and education of the local medical and non-medical communities, and for outreach community ear care work. From this process a UK charity was born, called Ear Aid Nepal (EAN). The group worked closely with many individual, local and international groups; but principally with a Christian charity named International Nepal Fellowship (INF), and with Swiss and German partners, who ultimately provided most of the initial funding. INF is the longest standing INGO (International Non-Governmental Organisation) in Nepal, with over 60 years in the health sector and multiple agreements with the Nepali government. EAN's principal role has been in networking with potential international volunteers and facilitating training opportunities for Nepalese medical professionals. INF is now run by an entirely Nepali leadership and board. The Ear Centre is based in the outskirts of Pokhara, Nepal's largest city outside Kathmandu. Pokhara is well known as a tourist destination, with spectacular views of the Himalaya and lies close to numerous trekking routes. The city has a population of over 250,000. It stands in a province of several million and in a country of over 30 million, there are very few other specialist ear services in the western part of the country.

**Limitations**

Building a small hospital in a low-middle income country (LMIC), is no minor task. Starting with a sketch, literally on the back of an envelope, and then with advice from medical and architectural friends and colleagues, an initial plan was drawn up and costed. INF generously offered land on its long-standing Green Pastures Hospital site, where there had been leprosy and rehabilitative facilities including an orthopaedic appliance workshop for many years. The cost of land in the rapidly expanding town of Pokhara is growing exponentially and without this provision the proposed Ear Hospital and Training Centre would not have got off the ground.
From past experience in Nepal we knew that it was important to employ a reputable architectural firm, project managers and contractors, and closely supervise the use and quality of materials, while watching the costs. The estimate was for 1 million US dollars. Ultimately after some years fund-raising and planning, work was completed in 18 months; early and under budget. We ensured that we had solar hot water, solar electricity, backup battery systems, a tube well water supply, internet servers, generator and an earthquake resistant building design. Nepal is very prone to shortages of essential commodities, blackouts and disasters. The major earthquakes of 2015 struck as the building neared completion, but it sustained only minor cracks in the internal plaster work.

The physical building was in many ways the easy part, before this could start, we made business cases and log-frames (logistical frameworks), SWOT analyses (Strengths, Weaknesses, Opportunities, Threats) and commissioned a local report on existing facilities and needs. The aim being to provide a service that did not compete with existing or planned services, provided care to the needy as well as those that could pay, was just and equitable, and that could at its core be financially sustainable if charitable funding ceased or reduced. We also wanted to coordinate with government and local institutions. This was challenging but we have established good relationships with other services, have memoranda of understanding for specific projects such as neonatal screening and we participate in joint training programmes. INF has a long history of providing health care projects in the west of Nepal and the coronavirus pandemic has further cemented good relations, through coordination with the recently established provincial government. This includes the use of Green Pastures Hospital and the Ear Centre to support emergency services and the INF disaster management and media teams helping with medical planning and with conveying accurate health messages to the public.

Ideals are all very well, but they require a lot of hard work and realistic preparation. This is fraught with risks and difficulties. Some one once remarked that it is impossible to find any ‘aid’ project which is fully successful. It is important to cooperate with local organisations and colleagues. Knowledge of cultural norms and behaviours and ideally language is
important. Many well-meaning people come to countries like Nepal and set up small charities and projects, but with little local knowledge or awareness. The government rightly wishes to ensure probity, safety and quality, but the rules laid down can create obstacles for reputable partners.

Amazingly our Swiss supporters undertook to raise the total cost of the building of the Ear Centre. The building was completed in August 2015, shortly after the major earthquake and just as the country adopted a new constitution, dividing the country along ethnic lines into 6 and then 7 federal states or provinces. Many, particularly along the Indian border were unhappy with this new constitution and the land borders with India were blockaded. This state of affairs continued for some months. At the same time electricity was severely limited by power cuts lasting most of each day (these turned out to be due to corruption at the top of the electricity industry). There was no cooking gas or vehicle fuel. People returned to wood fires for cooking, they queued for many hours for a few litres of petrol or kerosene for vehicles. This happened just as we needed to find furniture and many other items. We moved in our existing camps staff and medical equipment. It was a difficult time, searching shops short of stock for chairs, toilet brushes and so on, whilst sitting and planning by candlelight each evening. Ear Aid Nepal and others helped pay for items such as bedding and additional equipment, purchased locally or imported. We were constantly on the look-out for discounts, gifts and second-hand bargains. Despite all these issues we had our official opening in November 2015.

Running the new Ear Centre

As we developed the centre, initially known as the Ear Hospital and Training Centre, we had to adapt. INF decided to expand the rest of the Green Pastures Hospital and Rehabilitation Centre, and open new services. The aim being to support patients with long term needs, in line with the redrawn WHO health development goals. The Millennium Development Goals had centred on communicable diseases, but the new 2015 Sustainable Development Goals included recognition of the needs of those with non-communicable chronic conditions. This meshed well with our desire to help those with long-term disability, such as spinal injuries, palliative care, burn contractures and of course hearing loss. This was very much in line with the mission statement of INF to help those who are disadvantaged and could not obtain adequate help elsewhere.

This meant that the renamed GPH Ear Centre was no longer a stand-alone specialist unit, but part of a growing hospital. This brought benefits such as a leadership team with additional skills, but also challenges, such as more cumbersome administration. The insights to local rules and expectations that this brought was very valuable. But learning to work with the local hierarchical staff systems, often based on seniority, or chance meetings, rather than considered decisions, required sensitivity. Over the subsequent years this has been a productive learning process on all sides. Since 2015 the Ear Centre has expanded and has local staff numbering over 40, including 3 MS (Master of Surgery) ENT surgeons trained in Nepal and China, 2 anaesthetists, 1 MSc audiologist, speech therapists, several
audiological and hearing aid assistants, outreach community ear care workers; theatre, out-patient and ward nurses; administrative, reception and ancillary staff. One Nepali administrator in particular has been key, running all the ear camps and then the Ear Centre. There is a shortage of trained people such as degree level audiologists in the country, so recruitment is difficult. Many trained people only wish to work long term in the capital or plan to leave the country. Usually for understandable socio-economic reasons. This is frustrating, especially when more developed countries are actively recruiting from LMICs. We have had to learn that good staff will come and go. It is hard to spend years working with and training someone, hoping they will stay and provide good local service, then have to start again with new trainees. When staff move on and provide expertise within Nepal this is a success, even when this is in private clinics. But we also need to recruit and retain programme leaders and innovators. Aside from the local staff there have generally been 2 or 3 expatriate volunteers. The author has been lead surgeon and head of ear services since the start, and sits on the GPH management committee, we have also had masters level audiologists, and recently a speech therapist, from countries such as UK, New Zealand, and USA. Aside from these, who have stayed for several years each, we have had many short-term volunteers, usually coming for 1-4 weeks.
Goals

We have a number of aims: to prioritise first rate care for all patients, up to date and appropriate. Offer and develop a caring wholistic, patient centred, environment. Train all levels of staff and offer training to external medical and paramedical groups. Offer health and public education about ear conditions, prevention and treatment. Provide a hub for community ear care and long-term maintenance and supplies for hearing aid users. Early diagnosis and treatment including neonatal and early years screening. Utilising and mobilising volunteers effectively, emphasising opportunities to teach as well as assist with care. Provide specialist equipment and develop supply routes, using local means wherever possible. Maintenance of equipment, developing mechanisms for local sourcing and repair and not dependence on overseas assistance. Audit and research. Prioritising care for those unable to access care elsewhere. Developing an effective and respectful social care system to identify those people unable to cover the full cost, and when charitable finances and hospital income are sufficient, to subsidise care. Innovate services. Honest and fair medical advice, not doing unnecessary tests or treatment for financial gain, fostering trust. Networking with specialists. Maintain and develop donor/partner relationships. Retain good staff, with good terms of service and succession planning.

What happened

After opening the Ear Centre in late 2015, the out-patient numbers steadily increased. There have been over 90,000 patient episodes, including new patients, follow up, surgery or audiology. Surgery has fluctuated according to the skill set of surgeons and trainees. We have prioritised spending time with local surgeons as they learn, rather than numbers of ‘cases’. Audiology services have grown, and hearing tests and hearing aid fittings generate about one third of total income. Speech therapy has been surprisingly busy and now fully occupies two full time SALTs and one assistant.

The coronavirus pandemic has been a major financial issue for the hospital. Nepal went into lockdown in March 2020, and all travel was controlled. Routine out-patient and elective surgery ceased, but the major expense, staff wages continued. Patients that had often travelled for hours or even days to reach us were no longer able to attend. Green Pastures became an overflow tented camp for Covid and the Ear Centre an isolation unit. A fever clinic was opened, and staff, including ear care community workers, were all reassigned to new duties. None of this generated any income and no government subsidies were available. Thus, all services were paid from reserves, which were very limited, and donor income fell drastically. Medical staff were very anxious about seeing patients. We had a limited number of anaesthetic ventilators, supply chains were closed and PPE items of limited availability, as the land border with India and air imports closed. We had always struggled with oxygen supplies as cylinders tended to leak and so we only kept a small reserve. The population even struggle to obtain basic food stuffs.

As the months have passed, lockdown levels and compliance varied, but Nepal remained relatively free of Covid cases and mortality was low, perhaps because only half the population are aged over 25 years. However, as I write we are in
the month when major festivals (Dashain and Tihar/Diwali) take place and people travel long distances to see family, so most anticipate a significant surge.

Facilities

The Ear Centre has three clinic rooms, and two microscopy/endoscopy rooms; two audiology rooms with two integrated sound reduction rooms; three four bedded wards and four single rooms, two with air conditioning; a theatre suite including a large theatre that can accommodate up to three operating tables, autoclave room, layup and instrument rooms; and a good lounge with video and audio links to the surgery. There are also offices, medical records and nursing rooms, server and electrical backup rooms and a small vestibular testing room. A smaller building includes a canteen, laundry and storage. There is also a large training hall, with projection facilities and video link to theatre.

In theatre there are several microscopes, all with video systems, one of which is 3D, drill, suction and diathermy units, KTP Laser, facial nerve monitor and a range of rigid endoscopes.

The audiology department has the usual pure tone and tympanometry. We have developed local wordlists for speech audiometry, there is screening and diagnostic ABR, OAE, and VEMPs. We have a simple mobile phone based video system for water calorics; but would also like to be able to do VHIITs. We supply hearing aids which have been donated, mostly second hand but also some new. we can also supply aids purchased on open market in Nepal, but the prices are prohibitive for most clients. We make our own soft or hard moulds.

All this equipment creates challenges for maintenance and calibration. It is difficult to steer a path between doctor’s, and even many patient’s, expectations and appropriate, affordable technology.

GPH has facilities such as general physicians, lab, X-ray and physiotherapy, CT and MRI scans of good quality can be ordered in Pokhara city centre at private facilities.

Types of surgery

The bulk of the work is for CSOM. Our ethos is to attempt single stage procedures, including hearing reconstruction and mastoid cavity obliteration, to minimise and be realistic about the possibility of adequate follow up. We also do stapes surgery, and some surgery near the ear such as parotidectomy. We are often asked why we do not offer a full range of ENT. The reasons are many, including the large burden of ear disease, other local specialists offering ENT care, the need for on site on-call services, lack of our own intensive care or blood transfusion service and our aim to be a rehabilitation centre for those with chronic disability including hearing loss, who are currently underserved.

We offer essentially all forms of middle ear surgery, including large numbers of ossicular reconstructions. Where possible we utilise the existing ossicles, or sometimes cortical bone. We have used many varieties of donated prosthesis, universally with cartilage cover. We always incorporate cartilage in tympanic membrane repairs, regarding it as more likely to remain effective and intact long-term in Nepal. We also make our own titanium wire ossicular prostheses.
We recently undertook our first Cochlear implant and hope to extend this provision, but Covid as in other areas, has created delays. There are undoubtedly large numbers of children and adults who could benefit but use of scarce finance is an ethical dilemma. It is rarely possible for families to self-fund, and government has other priorities. We recently instigated an ‘at risk’ newborn screening service at a large local government hospital.

Bone aids are also a big need, but thus far we have not offered these and there is doubt about the most suitable fitting for the climate and lifestyle of our patients.

Community services

Over the last two years we have trained five full time health assistants in primary ear care and basic audiometry. Unfortunately, though we had started outreach work in the local community, the lock downs prevented further roll out. We have pump priming funding, with the plan that this service will to some extent self-fund as referrals to the hospital increase. But this model has not had time to develop and we fear that it may fail if outreach cannot take place and funding falters. Long term, ear care needs to be in the hands of government health services, but these are currently inadequate. The worldwide need is now actively recognised by bodies such as

A community ear care clinic in a village
the WHO. The annual World Hearing Day (3rd March) and the new World Hearing Forum are being promoted and the WHO has produced updated training materials for ear care workers.

Volunteers and visas

We have benefitted greatly from many volunteers giving time to visit Nepal and work on ear camps, and now at the Ear Centre. Their role is shifting from service to training. It was always exciting and an adventure to travel to remote districts; and be able to help people with few opportunities to obtain specialist advice or treatment. However, due to the new requirements to have a Nepali work visa and medical registration, it has become very difficult to accept groups of volunteers. The process involved to obtain these is so cumbersome, protracted and unreliable that we can only do so for individual visitors. We still welcome approaches from potential volunteers, and we have a steady stream, but it takes time to arrange. Those who do come will work alongside our Nepali staff in the Ear Centre, and once we can resume outreach clinics, should be able to attend one of these. We ask that they offer some teaching seminars during their stay. We offer bursaries to promote opportunities for Nepali professionals to attend courses and conferences outside Nepal and have recently offered some to UK trainees to visit the ear centre. Funds for this kind of activity and to subsidise treatment for disadvantaged clients, all come from private individuals.
Otology surgery during GEO visit, June 2019
Surgical informed consent in Ear, Nose and Throat Surgery in Mekelle, Ethiopia

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Introduction

Informed consent for surgical procedures is a priority in developed healthcare systems, but the practices vary significantly from country to country depending on their cultural and socioeconomic factors. (1) Ethiopia is the second largest country in Africa in terms of population but the provision of healthcare is poor, especially in ENT and head and neck surgery. (2, 3) ENT training is only provided in a few centres and there is no national curriculum. The training in Mekelle in the north of Ethiopia, encompasses a 4-year rotation at Ayder Hospital, the second largest hospital in the country. Regular outreach visits from teams of overseas healthcare professionals provide sub-specialist training for residents and consultants in the department. This project, carried out during two of the biannual visits by the Global ENT Outreach (GEO) team in 2019, aimed to describe the established consent process and explore the opinions of patients, local surgeons and anaesthetists.

Methodology

One-to-one discussions and a focus group with 6 ENT residents, 4 consultants and 2 anaesthetic trainees were carried out. A 12-item questionnaire based on previous studies was formulated.
to gather patients’ perspectives and distributed to patients undergoing otology surgery in November 2019. (4, 5)

Results

Patient journey for informed consent
The established process for informed consent in elective ENT cases is described in Figure 1.

Surgeons’ perspective

Local surgeons felt that the length and detail of the doctor-patient discussion is variable and most patients do not want to make choices but defer decision-making to the healthcare professionals. In most cases surgeons do not explain the potential risks and complications of the particular procedure, as they feel patients do not wish to know and would refuse surgery due to fear.

ENT trainees and consultants described the following perceived barriers towards shared-decision making:

Multiple languages are spoken in Ethiopia (86 languages and 200 dialects) and often information is relayed to the patient by informal interpreters.

Patients’ understanding of their own health and the procedure varies significantly depending on their age, education and social status.

Patients place significant emphasis on their own personal and relatives’ experiences with healthcare in the past. Patients tend to be more interested about the practicalities of attending hospital and recovering from the surgery. Patients’ relatives would often hold information about the diagnosis and treatment from the patient as they feel the patient is ‘too weak to hear the diagnosis’ and ‘it would make them sicker’.

Anaesthetists’ perspective

Anaesthetic training in Ethiopia differs substantially from others around the world. In some programmes, students enter a 4-year scheme without a prior medical degree whilst other programmes follow a 3-year scheme for qualified doctors. In the city of Mekelle, pre-anaesthetic assessment includes a thorough physical examination, a detailed explanation of the type of anaesthesia, its risks and complications and an anaesthetic consent form. Trainees stated that robust anaesthetic consent process is highly important to

Figure 1. Patient journey during consent process for ENT surgery in Mekelle, Ethiopia.

ENT outpatient clinic
- ENT surgeons make decision that a surgical treatment is required for a patient and inform the patient verbally of such decision.
- Variable information regarding the procedure, recovery and risks and complications is provided verbally to the patient.

Day before surgery
- Patient seen by nursing staff and asked to sign a generic surgical consent form.
- Patient seen by anaesthetic trainee for pre-anaesthetic assessment and anaesthetic consent form.

Surgical intervention
- Patient admitted to hospital for surgery.
- No further discussion regarding the procedure and its risks.
the department, they are encouraged to discuss in detail with the patients and provide as much information as possible.

**Potential improvement areas**

ENT trainees, consultants and anaesthetists were asked how could the consent process be improved. There was a general feeling that there needs to be a cultural shift so that patients are more engaged in the decision-making process. Some participants highlighted that whilst medical malpractice litigation in Ethiopia is currently uncommon, more robust consent processes should be followed to prevent litigation in surgical cases as the healthcare system develops.

The following strategies for improvement were proposed:

- Provision of a specific time preoperatively for doctors and patients to have a formal discussion about the surgical procedure.
- Information leaflets about surgery could improve the patients’ understanding.
- Provide more information in the surgical consent form with specific detail about the proposed surgery.
- Consent process to be carried out by surgeons proposing the treatment rather than nursing team.
Patients' perspective

86%(19) of patients were satisfied with the existing consent process, 91%(20) wanted to know more information about possible complications, 73%(16) would want written information. A large proportion of the patients were unaware of their rights in the consent process, with 55%(12) of them stating they couldn’t refuse to sign the consent form and 64%(14) believing that they couldn’t change their mind after signing it. 73%(16) of patients stated that they understood the risks and benefits of the proposed procedure. Nonetheless, 36%(8) felt that they didn’t have the opportunity to ask questions and 27%(6) were not given enough time to consider the information provided.

Discussion

Surgical consent practices vary around the world and there is a developing trend towards a shared-decision making between patients and doctors.(6, 7) There is a well-established consent practice for elective ENT surgery at Ayder Hospital with high patient satisfaction rates. However, surgeons, anaesthetists and patients expressed their desire for a cultural shift so that patients are more engaged in the decision-making about their health and are less inclined towards an outlook of ‘do whatever you need to cure me’ and a tendency not to ask any questions.
Despite barriers identified by surgeons in the consent process, the majority of patients would want more detailed verbal and written information about their surgery and its risks and benefits, more time to consider the information and an opportunity to ask questions. Moreover, a large proportion of patients lack understanding of the consent process and their rights to refuse treatment and change their minds. This is compounded by the communication challenges posed by the large number of languages and dialects spoken in Ethiopia and the poor literacy rates (39%).(8) More in-depth qualitative and quantitative studies are required to further understand the patients’ and surgeons’ perspectives and propose specific interventions to improve the consent process.

The understanding of the patient journey in the consent process and the perspectives of patients and doctors are key to improving the doctor-patient relationship and ensuring a robust consent practice. Doctors working in global settings should familiarise themselves with the country’s informed consent law and stay aligned with local clinical practice and guidelines.

References

What happens to international North-South collaborations during a global pandemic?

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Pre-COVID-19 global pandemic, residency training in low-middle income countries (LMICs) was already challenged by limited resources in many areas including infrastructure, technical expertise, human resources, equipment, and the relative infancy of many residency training programs. International collaborations, utilizing faculty from high-income countries (HICs), have been used to augment the provision of didactic education and hands-on training to residency training programs in LMICs. Now, the COVID-19 global pandemic’s infection risk and travel restrictions have further added to the challenges of such international collaborations with many inter-country trips planned for 2020 and 2021 either cancelled or postponed indefinitely.

Uganda, with a population of over 44 million people, has only two Otolaryngology residency training programs in the country with the newest program located at the Mbarara University of Science and Technology (MUST). Since 2014, Canadian and American Otolaryngology surgeons from the University of British Columbia (UBC), University of Manitoba (UoM) and Massachusetts Eye and Ear (MEE)/Harvard University have partnered with MUST to supplement the educational content in the Otolaryngology residency training program curriculum.

One of the key activities in this collaboration is the MUST annual in-person surgical skills course, consisting of both temporal bone and sinus dissection courses, which attracts residents and faculty from several African countries. The on-going COVID-19 pandemic has disrupted the planned 2021 MUST surgical skills course and potentially may impact the 2022 course.

Throughout the pandemic the team has continued to engage and communicate as partners to chart a path forward. The following are responses to discussions with Ugandan Otolaryngology colleagues reflecting on how to keep the collaborations active and impactful, and how to explore and learn from new avenues of resident training while embracing the ‘new global normal’.

**How has the pandemic impacted the MUST residency training program?**

Locally the pandemic caused us to revise the priorities of our training program due to the additional demands made on the already limited human resource. From the start of the pandemic while little was known, ENT surgeons were called upon among other key disciplines to brainstorm on managing this new respiratory based illness in terms of symptom identification, nasal swab sample collection and patient care. This extended service meant prioritization of COVID-19 patient care alongside mainstream resident training and clinical service.

Coupled with the COVID-19 infection prevention protocols, there have been inevitable restrictions in operating theatre lists and hospital clinics. The number of patients having elective surgeries has been reduced and some clinic procedures such as endoscopic examination of the upper airway, which are considered potentially high risk for COVID-19 spread, have also been reduced and in some cases halted indefinitely as safety protocols are developed.

Our international institutional collaboration offered an annual hands-on skills training course to not only...
the resident doctors of Mbarara, but other ENT trainees from various African countries. Such training was designed to develop skills cumulatively and therefore for some trainees who had just attended their first or second training course, there was anticipation of more opportunities to build on previously learned skills in a prescribed period of time through subsequent courses. The cancellation of such training activities that attract international trainers and trainees, means that continuity in learning of these skills has been disrupted. All these changes have ultimately impacted the training programs that benefit from the courses by limiting contextual hands-on training opportunities.

In addition, many of our international trainees were called back by their home countries to provide health services in anticipation of a surge in COVID-19 cases overwhelming their home country health systems. The majority of these residents ended up working as general medical officers, covering call, emergency duties and routine clinics in disciplines other than ENT, which they were pursuing at MUST. Being away from their preceptors therefore halted their skills development, and for some, skills that had just been introduced are being forgotten.

Furthermore, the different guidelines issued nationally to curb the spread of COVID-19 have greatly interrupted the academic calendar causing delayed report to Uganda and MUST of the new trainees, delayed promotion of current trainees and ultimately delaying graduation of the finalists. This has created increased workload and fragmentation of activities for the few faculty as they help trainees at different levels catch up with their academic expectations while still providing clinical care.

How has the pandemic impacted your clinical practice?

Alongside the effect of COVID-19 on residency training programs in LMICS, there has been a significant impact on clinical practice too.

Initially, clinicians were called on to collect nasal swab samples and ENT surgeons were particularly called upon to take the lead in this due to the assumption that their knowledge of the nasal passage and nasopharynx equipped them with the ability to collect samples without causing undue injury and unnecessary aerosolization. As the numbers of patients requiring swabs increased, other health care workers, particularly laboratory personnel were trained in sample collection. With the few ENT surgeons available in Uganda, other clinicians were ultimately called upon to do the training; although liberating of ENT surgeons, this most likely resulted in non-uniform training in swab collection with unknown repercussions on patient care.

There were a few other challenges in this aspect including the fact that there was a shortage of appropriate nasopharyngeal swabs. Some swabs were not marked to indicate depth of insertion and therefore it was difficult to determine whether one was in the nasopharynx if measurements were not done before inserting the swab. There was understandably more patient discomfort when a non-ENT took the sample compared to when the ENT surgeon took it.

All samples from the region are picked up by a government transport service and delivered for central processing at the viral research lab in the capital, Kampala, which is a 4-5 hour drive from Mbarara. This process largely
contributed to the delay in receiving results and in some cases instituting patient care. There is a promise of point of care tests or rapid tests, but they have not yet materialized.

The evolution of COVID-19 in presentation has imposed the need to pay more attention to certain symptoms that were previously not commonly sought in history taking (such as disorders of sense of smell and taste). In the same vein, we have experienced an increase in the number of patients presenting with smell and taste disorders.

Being an opportunistic aerosol transmitted disease, it has brought on challenges in effective and efficient assessment of patients. The patient physical examination has been curtailed. Previously, a full head and neck examination would have been performed on anyone with a head and neck symptom. However, during the pandemic, we have to be critical of the components of the examination we perform unless clearly warranted based on their symptoms such as oropharyngoscopy and endoscopic examination of the upper airway.

More so it is difficult to maintain the recommended social distance while examining patients especially in specialties such as ours and this is further inhibited by the limited amount of clinical space and personal protective equipment (PPE). When available, the use of necessary PPE helps to overcome this need for distance but creates a physical barrier between the patient and the physician which may be obstructive and even distractive for instance to paediatric patients. So all these factors surrounding clinical safety in times of COVID-19 have created inefficiencies and prolonged patient assessment.

Ultimately, this has decreased access to care given fewer patients can be seen in any given time allotment.

How has the pandemic impacted your research? What adjustments were necessary?

Research was significantly impacted by restrictions imposed on patient contact and travel into the communities. Travel for research was deemed unnecessary by national COVID-19 related protocols and the imposed curfews made participant travel challenging too.

Some students therefore had to change their research concepts completely, or halt data collection and analyze prematurely with what data they had collected especially when their study procedures included endoscopic procedures of the upper airway. (Completion of ENT training in Uganda mandates completion of a research project.)

Lack of unlimited PPE availability for research activities also impacted the ability to proceed. The available PPEs were reserved for direct COVID-19 care and necessary clinical service such as emergency care. It should be noted that due to the high global demand for PPEs, even where research funds were available, purchase was not readily possible to facilitate continuation of research. Such factors were major disruptions in student research and have led to many students falling behind in their research.

However, with ease of the lock down and more information on COVID-19, national guidelines on research during the pandemic have been established. Among these is the mandatory need for
all research involving human participants to file Risk Assessment and Management protocols with the local Institutional Review Board and the National Council of Science and Technology with consideration for spread of COVID-19. Without these protocols in place clearance to conduct research is likely to be denied. Though necessary, this is additional paperwork and a likely delay to any research that may be underway.

**What PPE challenges did/do you have?**

At the start of the pandemic, a guide on the appropriate PPEs for the different points of care was released by the Ministry of Health. They went on to provide sanitizer, medical alcohol, hazmat suits, disposable gowns, masks (N95 and surgical masks), boots and gloves. Training on donning and doffing was also given to all staff.

However, with the continued evolution and duration of the disease, supplies have run low and what is available is limited to direct COVID-19 care which has left other medical personnel to privately purchase what they need.

There were no specific guidelines for surgery at the start of the pandemic. Surgeons were encouraged to use surgical gowns, N95 masks and eye protection when operating but otherwise no special aerosolization precautions were used. To try and curb disease spread the Theatre Users Committee advised against elective procedures until we knew more about COVID-19.

More recently, the surgeons’ theatre garb remains the same and extraction fans have been added to all the operation rooms. Elective procedures have also resumed to curb the large patient backlog.

**Did other outbreaks (i.e. Ebola) help you prepare for the COVID-19 pandemic?**

Most doctors at MUST were not directly involved in management of patients with Ebola, let alone screening for them. It did not prepare us as an ENT department for COVID-19. However, the Hemorrhagic Fever Response Team played a key role in orienting and training the rest of the staff in handling the highly contagious coronavirus. For example, their expertise helped educate surgeons in practicing ‘donning and doffing’ of PPEs.

**Some health care experts have talked about using the COVID-19 pandemic as an opportunity to “build back” better health care systems. How could the pandemic improve future international north-south health collaborations?**

As a result of the pandemic, access to health care changed rapidly all over the world from in person care to virtual care. In Canada at the height of the pandemic in Spring 2020, it was estimated that approximately two-thirds of patient visits with primary care providers were conducted virtually. With much of the world experiencing a second wave of COVID-19, the opportunity of virtual international north-south collaborations needs to be explored.

We therefore anticipate increased advocacy for telemedicine and remote teaching in the global south, which might be more cost effective and may potentially address the human resource
gaps that may be left due the COVID 19 deaths. This may be further augmented by the fact that resources for distance learning have been prioritized during this pandemic. At MUST the online distance learning program is now actively being used with more staff being trained on its use and course materials being uploaded regularly for the students who are still at home.

Whereas this mode of training may not apply to teaching of all clinical skills, we anticipate that more clinical instruction will be given by way of simulation, with a remote tutor. This might be a viable option especially in cases where institutions wish to continue collaborative instruction of learners as part of the solution to human resource shortages.

References:


conference report
Misha Verkerk gave a talk on his experiences setting up a partnership between ENT surgeons in Ethiopia and the international charity Global ENT Outreach (GEO). Since 2017, GEO has worked in Mekelle, Ethiopia to support otology training within a new ENT training programme. Misha provided an overview of the collaborative approach to the creation of a memorandum of understanding, with a strong focus on local care needs. Strengthened by common ideals to create a sustainable and durable impact for the health of the local communities, regular visits by the clinical teams of surgeons, surgical trainees and audiologists have focused on training rather than pure service provision. An emphasis on hands-on operative training was maintained by reduced operative schedules and close consultant supervision of trainees in outpatient clinic and during otologic surgery such as tympanoplasty and mastoidectomy. Together with a team of audiologists, GEO has commenced basic audiology training for nurses and doctors and donated refurbished audiometers and a tympanometer to the department. In late 2018, thanks to support from Zeiss, Ethiopian Airlines and the Royal National Throat, Nose & Ear Hospital in London, GEO founded the first permanent temporal bone lab in Ethiopia and started biannual cadaveric dissection courses. Amongst challenges highlighted by the group, a key issue was the limitation of short-term clinical visits, partly overcome through the foundation of a fellowship for fully qualified ENT surgeons whose role is to lead resident training. It was acknowledged that such a global health partnership represents a marathon and not a sprint, and that trainees play a key role in driving meaningful and sustainable change. This project is a good example of a trainee-led initiative that forms part of a global effort to reduce inequities in ear and hearing health (including the work of many others including the WHO World Hearing Forum, ENT-UK Global Health Committee and other non-profits). A key outcome of this project is the retention of locally trained ENT surgeons as newly appointed consultants with improved understanding of the recognition and management of ear disease. GEO hope to resume work in Ethiopia in 2021.
The 3rd ENT-UK Global Health Conference was held as a one-day, live virtual event being sponsored by Smith and Nephew. The event was chaired by Global Health Committee members Nick Eynon-Lewis and Gemma Twitchen, and provided a veritable insight into the issues affecting ENT/Audiology colleagues with a global perspective. It was freely accessible to delegates from low to middle income countries.

The diverse range of speakers hailed from Africa, the Pacific islands, Australia, the Americas and the United Kingdom. The virtual aspect lended to greater accessibility for international delegates to join and ran seamlessly, being free from technical issues on the day.

The day consisted of four structured sections covering the (i) Global Aspects of COVID-19; (ii) Moving Forwards with Global Health Issues; (iii) Projects Making a Difference and (iv) Local Paediatric Service Models. All sections had an opportunity for panel discussion at the end.
After a welcome introduction by the chairs; the first speaker within the COVID-19 section provided an informative summary of the unfolding events of the pandemic and the rapid journey to vaccine development. President Nirmal Kumar discussed the ENT-UK response and some of the challenges that lie ahead of us, with poignant mention of our fallen colleagues. Dr Samuel Okerosi, from Kenya, provided a unique insight into the effects of the pandemic influenced by the government’s leadership response and the pre-existing infrastructure. The challenges of limited testing capacity, lack of personal protective equipment and backlog of elective work was also mentioned, echoing the challenges our NHS faces.

The second section consisted of speakers (i) from Harvard with discussion of the Global OHNS initiative (a collaborative ENT research programme to enable improved delivery of ENT care in low resource settings); (ii) from Deafkidz International discussing Audiology services and the stigma of hearing loss in Malawi, which has 3 serving audiologists and Pakistan, which has 16 public sector audiologists; (iii) Anna Searle, from the London School of Hygiene and Tropical Medicine discussed the need for recognising “global interconnectedness” and the “need to give a voice to those most difficult to hear”.

The third section provided thought-provoking insight into how do you run or develop an ENT service with a scarce ENT workforce available.

A sustainable, outreach Otology training programme in Ethiopia was discussed as well as further pragmatic strategies utilising the expertise of existing staff by training colleagues from parallel backgrounds in Medicine, Anaesthesia and Paediatrics about elective and emergency ENT problems. The heartfelt dedication of Dr Oh Chungyeon’s (a South Korean Government Consultant), who has been tasked with the mission of developing the Fijian ENT service by training the first ENT Specialist was particularly inspiring. Poignant, thought-provoking sentiments were also expressed by David Howards on the ugliness of inequity and poverty (referencing experiences in Tanzania and Ghana), the need to give something back and the reality of being within a population with little or no specialist medical infrastructure.

The last section on Paediatrics featured an impressive account by Shazia Peer on the development of the Paediatric Airway Management service in Cape Town, South Africa emphasising the importance of local self-empowerment by training African surgeons for country-wide service improvement and sustainability.

There were of course other talks on a variety of subjects, all being informative and thought-provoking with lessons on workforce sustainability and service delivery we could all learn from. All speakers presented live in countries with varying time zones (some being very early in the morning, following or before busy clinical shifts) and so speaking on behalf of delegates, we were all very grateful and inspired by their enthusiasm and dedication towards improving global health outcomes for their patients, staff and our learning.

For me, the day emphasised the importance of shared learning, our global interconnectedness and our need to support one another in the right to health by developing health services as one global community and not as one separate country. Certainly COVID-19 has shown us the depravity of poverty, the unnecessary loss of life it has caused and how we need to progress for the sake of humanity.
Dr. Fane Lord / ENT fellowship in CWM hospital, Suva, Fiji
According to a Pacific Island countries ear and hearing care article, there are few ENT & Audiology specialists in Pacific Island countries. The ENT & Audiology service in Pacific Island countries has been provided by expat ENT specialist or general surgeon without ENT specialist training. Korea International Cooperation Agency (KOICA) has dispatched medical specialists to Africa, Asia and South America to share their capacity with health care professionals under the name of ‘KOICA global doctor program’ from 2015. More than 30 KOICA global doctor, who financially supported by South Korea government, are working for fostering medical specialist in resource poor setting. Fiji government asked an ENT specialist to KOICA for fostering first Fijian ENT specialist in 2016. A Fijian general surgeon, who has master degree of general surgery, has been trained as an ENT registrar with organized ENT operation training program in Colonial War Memorial hospital, Suva, Fiji from 2017. Through the three years ENT registrar training program in Fiji, she has equipped confident capacity for essential ENT operation, for example tonsilectomy, tracheostomy, FESS, tympanoplasty and Mastoidectomy. Also, the other Fijian General Surgery registrar has been training as the second ENT specialist from Jan. 2020. But, ENT specialized

Dr. OH, Chunghyeon

Fiji sub-divisional PEHC(Primary Ear and Hearing Care) training Map
Ear flushing practice with ear model in PEHC training

Certification ceremony after 7 days PEHC training in Kiribati

How to use ear drop practice in Kiribati PEHC training
clinics and operation in only one ENT clinic in tertiary hospital is not enough for providing quality ENT service in Fiji with 900,000 population. Because of accessibility, almost of ear & hearing problems are covered by general physician (GPs) & nurse practioner (NPs) in health center or district hospital. The only one ENT clinic in Fiji used to be suffered from long waiting list due to simple ear disease referred from health center, for example, ear wax impaction, ear foreign body, simple ear discharge. Also, the other problem is that severe complicated ear infection patients used to be delayed referral.

For improving quality of primary ear and hearing care in health center, Fiji ministry of health & medical service (MoHMS) has been providing primary ear and hearing care (PEHC) training with WHO intermediate training manual to GPs & NPs in each district from 2017. Through the two days training, participants could remind how to use otoscopes, how to use ear wick, basic pathophysiology of ear disease, how to do voice test without audiometer and when they have to refer patients to ENT clinic. 313 participants have been certificated through 18 times training from 2017. After the training, the ENT patients waiting time is reduced from 3 months to 1 months and the number of ENT referral cases from health centres have been reduced. Also, the number of late referral complicated ear infection cases have been reduced.

Although GPs & NPs already have medical knowledge and experience, it is not enough for quality primary ear and hearing care service. However, GPs & NPs might be a powerful candidate for ear & hearing care task shifting in limited resource environment. Because they have not only their platform to provide ear & hearing care service in grass root level but also basic medical knowledge & skills. In addition, they have a proper license to provide PEHC service with payment from government. In limited resource situation for ear and hearing care, they should be a powerful candidates for ENT & audiology service task shifting. They should be trained as a quality primary ear and hearing care provider.

Bibliography

In the wake of the pandemic ENT UK worked collaboratively within its broad membership to deliver timely guidance for the speciality and led the speciality’s response. The early evidence suggested that clinicians in our speciality were at particular risk of contracting Covid-19 due to regular examination and work in close proximity to the upper airway in addition to conducting potentially Aerosol Generating Procedures (AGP). Protection of our trainees, many of whom were working in other specialities such as Intensive Care, was paramount and we were able to engage successfully with Public Health England (PHE) and deliver on appropriate Personal Protective Equipment (PPE) for our examinations. We will continue to adapt our guidance as we continue to learn more about this novel virus in the setting of a world-wide pandemic. We have received positive feedback, from around the world, that our resources and guidelines were able to guide other countries in their response within the field of ENT.

The association of olfactory dysfunction and Covid-19, led by Professor Claire Hopkins, continues to be an important link. ENT UK lobbied Public Health England for this presentation, along with change in taste, to be recognised as one of the most important symptoms in Covid-19. We have conducted a Google Trends analysis which demonstrated strong to moderate correlations in search terms related to loss of smell and taste and the number of Covid-19 cases in the majority of regions studied across Brazil, Spain, Italy, France and the United States of America. This method has the potential to be used as an adjunct for tracking regional spikes in Covid-19 cases particularly in countries where Polymerase Chain Reaction (PCR) Covid-19 tests are not available or are in short supply (Cherry et al., 2020).

As we continue to adapt to this novel virus our service delivery will change too. There are numerous advances in technology that have allowed us to develop remote methods of assessing patients and harnessing appropriate new developments will be important going forward. It is likely that these new methods of consultation will become part of our services for many years to come.

Reference:
Managing Covid in Low Resource Settings, Experience from Kenya

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Introduction

The novel corona virus 19 (COVID 19) is a global pandemic that has affected every corner of the world. ENT Surgeons are at high risk of contracting the virus from their patients due to performance of aerosolizing procedures. Limited testing capacity, high burden of ENT disease with limited number of clinicians, severe shortage of PPEs and inability to effect total lockdowns given the high number of people working in informal sectors are some of the challenges affecting otolaryngologists in low and middle income countries¹. At the time of the presentation on 2/10/2020 there were 38,000 cases and 707 deaths in Kenya.

Covid 19 Screening tent at the entrance of Accident and Emergency at Machakos level 5 Hospital
Government and Hospital response

With the diagnosis of the first Covid 19 case in Kenya in March 2020, the government introduced a partial lockdown. There was also a ban on gatherings and schools and places of worship were closed. People were encouraged to work from home and a campaign to sensitize the public on hand washing, social distancing and wearing of face masks was run.

The ministry of health suspended elective clinics and surgeries in all the government hospitals for about 6 weeks as protocols were established to limit the spread of the virus within the hospitals. All patients would be screened using a questionnaire for Covid 19 symptoms. Patients within the hospital were to observe social distance and wear masks within the hospital if it would not affect their breathing.
In Machakos level 5 Hospital and in particular in the ENT department some of the protocols that took effect are as highlighted below;

In clinic – avoiding crowding in the waiting rooms by maintaining a 1.5 metre physical distance, keeping windows open for ventilation, cleaning of surfaces with 0.5% chloride solution after every patient, wearing of a respirator mask and a surgical mask above it to avoid soiling; this would enable us to reuse the mask after 4 days. Eye googles or a face shield would be worn. Performance of nasal endoscopies and laryngoscopies was avoided and if necessary they would be performed at the end of the clinic after gowning.

In theatre - only essential staff were allowed. Respirator masks and face shields or eye googles would be worn when performing airway procedures including tracheostomies and direct laryngoscopies.

Conclusion

Covid 19 is a global issue affecting all ENT surgeons. Shared experiences are important in developing efficient, practical and cost effective strategies in battling this pandemic and reducing the number of ENT surgeons exposed.

By the time of submission of the article (November 30), Kenya was experiencing a second wave. The total number of cases was 81,656 with 1,441 mortalities by 27th November 2020.

References

Aiming to improve theatre safety by starting a Paediatric ENT and Anesthesia Skills Course at Kilimanjaro Christian Medical Center (KCMC) in Northern Tanzania

Ian Lilly¹, Peter Shija², Desderius Chussi², Philbert Mtenga², A Kotwica³, Tom Hampton¹, Andrew Lau¹, Lulu Ritchie¹, Nimesh Patel³, Michael Rothera¹, David Howard¹

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The background to this project is a 6-year friendship between the ENT team at Kilimanjaro Christian Medical Center (KCMC) led by its Head of Department Mr Peter Shija, and Professor David Howard of ENTUK. KCMC is a Zonal Consultant Hospital in Northern Tanzania with a catchment of over 15 million people.

The drive for the course is that ENT accounts for 80% of all the surgery done at KCMC. For the vast majority of children, Anaesthesia in KCMC is undertaken by Nurse Anaesthetists, who have limited access to courses after their one year of training. Tragically, early in 2018, two potentially avoidable children’s deaths occurred where intubation was not successful. One in a child undergoing induction prior to tonsillectomy, and another in a child in recovery, after microlaryngoscopy for multiple laryngeal papillomatosis.

Planning started in late 2018 for a free one-day course, open to ENT, Anaesthetic Nurse and Theatre Staff, modelled on the very successful ENT
UK Paediatric ENT Skills Course. It would be independently evaluated. Initially run by a UK and KCMC Team together, later, by the KCMC Team alone.

Approval was attained from KCMC hospital management, attendee recruitment arranged, and the patient activity schedule adapted. In the UK with the help of three charities, 5 ENT Airway Mannequins, along with silicon neck tracheostomy simulators, new scopes, optical grasping forceps and Hopkin Rods were obtained.

The UK Team arrived 3 days early in June 2019, so those who had not been to KCMC before had a chance to meet the KCMC Team, plus attend ward rounds, theatre and clinic. Course material was finalised in the evenings.

The day of the course began with registration, refreshments, and pre-course questionnaire. Interactive morning lectures and tutorials were on Human Factors in Theatre, Paediatric Airway Emergencies, Haemhorragic Shock and Tracheostomy. The afternoon was dedicated to simulation skill stations of Intubation, Airway Foreign Body Removal and Tracheostomy. The day ended with post-course evaluation questionnaire and certificates.

Evaluation found interactive lectures scored highly, but simulation skill sessions higher. Just one attendee had been on a post training airway course before. There was a wish for more time on the foreign body retrieval skills station (KCMC carrying out over 200 such cases per year), so when the course was re-run in November 2019 extra foreign body skill stations were added.
A May 2020 course was cancelled, but there is optimism of restarting relatively early in 2021. Covid has been more of a problem from the UK, than in Tanzanian. Tanzania had an early lock down, and with a relatively young population (median age 17 years, compared to the UK’s 40 years), KCMC has not been overwhelmed during the pandemic. Since early September the KCMC ENT department has been back to its normal activity.

Moving forward, it is planned the KCMC team will run the whole afternoon next time, then after that the morning too. Later there is the possibility of such a course spreading further afield. We look forward very much to 2021.
Let the children Hear (LTCH) is a British registered charity operating in Kampala, Uganda from 2014.

The World Health Organization (WHO) estimates that 466 million people worldwide have permanent disabling hearing loss, and 34 million of those are children. If infants and young children with permanent hearing loss are identified early and provided with hearing technology and appropriate audiological/medical/educational services, they can achieve on par with their hearing peers and become productive contributing citizens.

Let the Children Hear (LTCH) started their first project in Kampala, Uganda in 2014. LTCH's mission is to improve hearing, speech, and language outcomes for children aged 0-16 in Uganda by focusing
on public awareness, prevention, early detection, and early intervention. By addressing these goals, children who are deaf or hard of hearing will be able to integrate with their peers, increase their educational opportunities, avoid stigma and social isolation, and become more productive members of society.

We estimate that 436,230 Ugandan children are living with some form of disabling hearing loss.

Currently, Uganda has no public health plan to address childhood hearing impairment and currently there is a lack of hearing health care provision for children within the national health care system of Uganda.

Hearing impairment is the fourth leading cause of years lived with disability (YLD) (Joubert & Botha, 2019).

LTCH is the only paediatric audiological service in Uganda that provides a free service for children 0 to 16 years of age. The programme is based on WHO’s recommended strategy of prevention and early intervention of childhood deafness. The model focuses on integration of services within the national health care system of Uganda with future sustainability in mind.

The clinics are well resourced and provide newborn hearing screening, medical treatments for common ear diseases, audiological assessment, hearing aid fitting and rehabilitation in the form of speech and language therapy. In addition LTCH provides a school hearing screening programme using the sound treated mobile clinic. LTCH also focuses on capacity building of paediatric audiologists in Uganda and has established a learning and training environment whereby ongoing training takes place.

LTCH is working with the Ministry of Health of Uganda for future expansion and sustainability of the project. Current funding of the project comes from various funding streams including a grant from UK Aid for the next two years.
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Tracheostomy tube with an atraumatic inserter which ensures gentle and safe positioning of the tracheostomy tube during dilatational tracheostomy or subsequent tube changing.

Transparent outer cannula with integrated 15 mm ISO connector, a cylindrical low-pressure cuff and an integrated subglottic suction line, perfectly embedded into the outer cannula to avoid pressure necrosis. Made of flexible thermosensitive material which ensure good wearing properties.

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Atos Medical has been working in partnership with Primed to provide an extra supply of tracheostomy tubes to the NHS.

During the COVID-19 pandemic, there has been a high demand for tracheostomy tubes in hospitals in UK.

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