SEFAKO MAKGATHO
HEALTH SCIENCES UNIVERSITY

FOCUS on SMU

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Birth Defects

By Prof MPB Mawela (HoD of Paediatrics & Child Health)

is recognised internationally on 3 March every year
World Birth Defects Day (WBDD)

Birth defects can be defined as abnormalities either in structure or function in some part of the body. Some of these birth defects are obvious at birth, while others manifest later in life.

The majority of babies are born perfectly healthy, but in a small percentage, things may go wrong. Many birth defects or congenital defects happen in the womb and there is no known cause.

In South Africa, a large number of women in the public sector do not get antenatal care during the first 20 weeks of pregnancy. This means that many conditions that may lead to birth defects will not be picked up early enough to diagnose or treat.

Screening:
No single test is 100% accurate in detecting birth defects, although doing these tests is important and very useful for early detection of problems.

Examples
Some examples of birth defects are:
Cleft palate and lip, down syndrome, Spina bifida (open spine), Club foot and albinism.

Prevention
Some birth defects can be prevented e.g. folic acid before falling pregnant and during pregnancy, avoiding harmful substances during pregnancy such as alcohol and diagnosing them and starting treatment, if available, as early as possible after birth.

The call on this day is:
Government needs to implement screening programs for all women, and provide ongoing support and care to children with birth defects and their families.

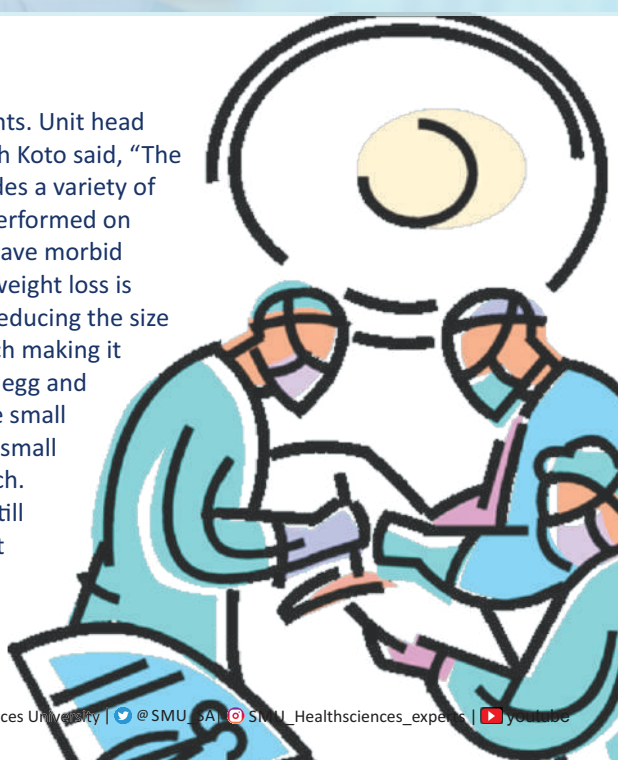
IN THIS EDITION

SMU Conducts Bariatric Surgery at DGMAH

By Tebogo Manye

The first Bariatric Surgery (or weight loss surgery) Unit of Sefako Makgatho Health Sciences University (SMU) has been recently established at Dr. George Mukhari Academic Hospital (DGMAH). This collaboration between the Gauteng Department of Health and SMU Department of Surgery represents an important advance in bringing this type of surgery within reach of the poor. The surgery also represents the multidisciplinary approach to the management of a patient with morbid obesity where surgeons, physicians, anesthetists, psychologists and other disciplines all contribute to the initial screening, workup and ongoing management and surgery of these patients.

The Bariatric surgery workshop held at SMU provided a real-time information for the numerous attendees including professors, specialists and doctors from both the public and private sectors as well as students. Unit head Professor Zach Koto said, "The surgery includes a variety of procedures performed on people who have morbid obesity. The weight loss is achieved by reducing the size of the stomach making it the size of an egg and re-routing the small intestine to a small stomach pouch. Patients are still advised to eat healthy afterwards



because the surgery does the 50% and healthy eating does the rest".

Prof Koto said the other type of bariatric procedure is reducing the size of the stomach by two-thirds (70%) in a procedure called sleeve gastrectomy. "This works by two mechanisms, Firstly, it reduces the size of the stomach so that the patient eats less. Secondly, it reduces the hunger hormones where the patient does not feel hungry", he emphasised.

Obesity is a significant public health problem in South Africa with serious potential metabolic complications. "One out of three patients in South Africa is obese and this leads to diseases such as high blood pressure, diabetes, high cholesterol and arthritis, hence it is important for a patient to go through a proper screening process before they can be considered for bariatric surgery which is a complete life style change for the patients. What is intriguing is that bariatric surgery is able to permanently cure diabetes, hypertension, sleep apnea and other obesity related comorbid conditions" added Prof Koto.

SMU through the department of surgery is spearheading the registration and accreditation of a qualification in Bariatric and minimal access surgery in South Africa. Koto said the service would help the government to save money as it could cure diabetes and ensure that there were no more premature deaths. He further said that the procedure had to be looked at, and be made available to the public throughout the country.

Prof Dhaneshwar Bhagwandass, Clinical Head in the Department of Anaesthesiology at SMU and DGMAH, welcomed the opportunity for the team involved in this venture to grow professionally as individuals and as members of a team. "Bringing such initiatives to the public sector, and succeeding, proves that collaborative efforts from clinicians can improve the lives of all South Africans,"emphasised Prof Bhagwandass.

After the presentations at the workshop, the audience was shown live Roux Y gastric bypass procedure on eight patients. This was done using the state-of-the-art 3D laparoscopic camera system in the high-tech room in the department of surgery at SMU. It was transmitted a distance from theatre at DGMAH to the Clinical Pathology Building (SMU). All the patients did well and were discharged two days later.

At this workshop, they also showcased the 4k (ultra-high definition) camera system. This interactive live surgery symposium is a significant education tool which is a growing intervention for learning and professional development. Attendees came from all over the country and some surgeons came all the way from Namibia. Members of the SMU Surgical Students Society were also in attendance.

Head Injury

By Dr N.A Dube, Neurosurgeon Specialist

Head injuries are among the most common types of trauma encountered in emergency departments. But what is a head injury? Head injury is defined as any injury to the scalp, the skull or the brain itself. It can range from a bump on the head to a more severe traumatic brain injury. Traumatic brain injury is when the brain itself is injured and it is classified as mild, when a patient can be treated in the general ward or as an outpatient, moderate where they require admission either to the general ward or High Care, and severe traumatic brain injury where the patient requires treatment in ICU.

The three most common causes of Head Injury in South Africa are: Motor Vehicle, Bicycle, Or Vehicle-Pedestrian Accidents (50%), Falls (25%), and Violence (20%).

The ratio of male to female is: 5:1 Male: female and most commonly occurs between the ages of 25 - 44 years. Head injuries cause a huge burden to the health care sector. In the US “direct and indirect” medical costs can be as high as 77 billion US dollars per year.

Head injuries may be classified either closed or open. A closed head injury is any injury that doesn't break your skull. An open (penetrating) head injury is one in which something breaks your scalp and skull and enters your brain.

The major types of brain injury include:

- skull fracture which may cause damage to underlying brain
- focal injury: for example haematomas/haemorrhage, where there is a clot or bleeding either around the brain, or within the brain parenchyma.
- diffuse brain injury where the CT scan may look normal, but there is injury to the brain cells themselves.
- edema which occurs when the brain swells due to injury

Symptoms of head injury range from:

Headache, mild confusion, nausea to a loss of consciousness, seizures, vomiting, balance or coordination problems, disorientation, persistent or worsening headache, amnesia and a csf leak (leaking of clear fluid or fluid mixed with blood from the ear or the nostrils)

Because it is difficult to determine the severity of head injury buy just looking at a patient, patients are required to be taken to the nearest clinic or hospital for further evaluation. Remember, many patients with severe brain injuries die before reaching a hospital, so time is of the essence when dealing with patients with head injury.

At the hospital, the patient is assessed by the health care providers. Assessment includes the taking of history so as, to determine the cause of the injury, status of the patient after the injury, any other medication or illnesses that the patient may have and may impact the injury and management. The patient is then examined to assess the severity of the injury. Often the patient will have x-rays of the skull done, followed by a CT Scan to determine if there is injury to the brain and the type and severity of the injury. The patient is then referred to a neurosurgeon for further treatment.

Treatment depends on the type and severity of the injury. As stated above, often in mild head injury, the patient may be admitted for observations or treated as an outpatient.
In moderate head injury, the patient is admitted to a neurosurgical unit and treated in the general ward or in High Care. Patients with severe traumatic brain injury are usually treated in ICU.

Treatment includes medical treatment to treat pain, seizures, etc., but may also include surgery to evacuated haematomas, to treat the skull fractures or to stop bleeding or to remove foreign bodies. An intracranial pressure monitor may be inserted by a neurosurgeon and be used to monitor the pressure in the brain. This normally done to assist with treatment of patients with traumatic brain injury. It is important to remember that treatment is always determined by the type and severity of the head injury.

The long term effects of head injury are many and varied and once again depend on the type and severity of the head injury, but may include: complete recovery, persistent headache, seizures and neurological deficits. It is because of the long term effects of head injury that patients are followed up closely following a head injury and often the patients receive rehabilitation to help so as to improve the complications of the head injury.

NB: 20 March is World Head Injury Awareness Day.

A little giant slowly but surely taking its milestones

By Maditsi Matlala

As the only comprehensive and stand- alone health sciences university in the country, SMU has been mandated to admit 7 000 students by 2020, and raise the numbers to 10 000, by 2025. Whilst the student enrolment figures are government controlled, prospects are promising that these enrolment targets are well within reach, judging by the student enrolments figures of 6410 that were admitted in 2018.

The increase in numbers far outpaced the programme to develop infrastructure and refurbish the dilapidated ones. Plans are underway, as a matter of extreme urgency, to erect facilities and infrastructure such as residences to accommodate the rising numbers of students, to provide them with clinical exposure on different clinical sites, laboratories and libraries.

To cater for these needs, the government has provided a R1 Billion grant for infrastructure development programme which will be rolled out over a five year period, has commenced in 2018? Of this amount, R600 Million has been earmarked for the construction of the 2000 bed residences, on campus, for the students. The residences construction programme will be carried out in 24 months phases. Each phase will result in the delivery of 500 beds.

R26 million will be utilised for the construction of the student pavilion which will have student dining hall and staff cafeteria with cubicles to accommodate small and medium enterprises as well as a new library. The existing facilities such as the student dining hall will be put to other uses. The grant will also be spend on the refurbishment of the existing laboratories and the amount to be spend will be thrashed out with SMU Council (SMUC).

The infrastructure and facilities which will rise on the campus will go a long to give the picturesque campus a new look and feel. But is hardly enough to cater for years of lack of infrastructure and facilities development. Additional sources of funding will be canvassed outside the government sector in an arrangement that will involve public and private partnership.
But the proposal to kick start the public and private sector partnership for facilities and infrastructure build programme will first have to be tabled for ratification before the SMUC. Already, the campus is beginning to observe the changes that are being made possible by the grant expenditure.

Residences 1A and 1B as well as the Nuclear Medicine Unit have been refurbished to make them more habitable and user friendly for students, staff and the patients who come for specialist treatment. The basement section of CLIN PATH Building has been refurbished to accommodate more office spaces and student waiting room. The newly built pharmacy building will soon be put through a thorough structural maintenance programme to correct structural defects identified.

Ear Screening the Modern Way

By Ms Tebogo Manye

The Department of Speech-Language Pathology and Audiology (DSLP&A) from School of Health Care Sciences celebrated the ear hearing awareness day. Students and staff gathered by the Library Lawn for free ear screening. Final year students from the DSLP&A used an App called *hearWHO* for the screening process. The App can be downloaded for free from the Google Play store or App store on a smartphone and it can be used anytime at a quiet place.

A DSLP&A final year student Mapule Makete indicated that the awareness was a good initiative because they do not have enough time to promote awareness such as the one happening on the day because of their academics, therefore it gives them pleasure to promote ear hearing health on campus as most of the time it was being held outside SMU.

Campus students are the target because most of the time they are always using/wearing their earphones, therefore they do not only get free screening but, they also get tips such as; we do not have to use cotton buds to clean our ears because they automatically get clean unless you are instructed by a doctor or audiologist.

Thabang Ramokhoase, one of the students who was screening said "Events such as this are good for all students to attend because it helps with creating awareness of certain hearing conditions. Being here has enabled me to learn a lot about my hearing problems and I am looking forward to learn more via my referral."

He further emphasised, "The awareness could be a good course for the community as well, because most of the people think that because they clean their ears daily. They are unlikely to get hearing problems, therefore we are encouraging that such awareness to be done in our communities to promote good health regarding our ears and debunk the myths regarding the ear hearing health.

The process begins by checking the outer ear with an otoscope and screening is being done by using hear WHO app and if your results are 50% or more it means your hearing is good and if it is lower than 50% you get referred to the audiology unit to check if you have a hearing loss or not.

What can you do to avoid hearing loss?

As an individual:

- Do not insert any object into the ear
- Use earplugs and earmuffs in noisy places
- In case of ear problems, consult a doctor immediately
- Check if medicines you take can affect your hearing
- Have your hearing tested regularly
- If advised to do so, use a hearing device as indicated

As a child carer:

- Do not insert anything into a child's ear for any reason including to clean it
- Teach children never to insert anything into their ears
- Do not allow children to swim in dirty water
- Do not hit or slap a child
- Protect children's ears from loud sounds
- Teach children to listen safely through personal audio devices

As a community worker:

- Learn about hearing loss and share information on ear and hearing care
- Know where ear care services are provided and guide people on how to access them
- Refer to a doctor people reporting with ear pain or discharge
- Learn about hearing devices and help people to use them properly
- Encourage deaf people to use sign language and
- organize support groups

As a teacher:

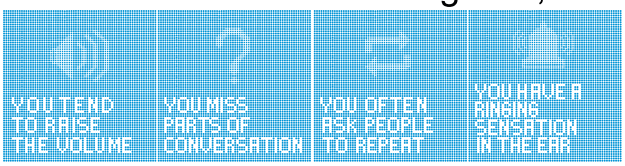
- If a child is inattentive in class, it could indicate hearing loss; consider suggesting a hearing test
- Educate children on ear care and on the risks of inserting objects in the ear and of listening to loud sounds, including music
- Respect children: hitting a child or slapping him might result in hearing loss
- Refer the child immediately in case of discharge or pain in the ear to a doctor

Check your hearing!

hearWHO

Download the app

You could have a hearing loss, if:



World Health Organization