

SAMA INSIDER

MAY 2022

**First clinical
trial on traditional
plant-based treatment
of COVID-19 launched**

**TB prevention: It's
time for innovation**



**SOUTH AFRICAN
MEDICAL ASSOCIATION**

PUBLISHED AS A SERVICE TO ALL MEMBERS OF
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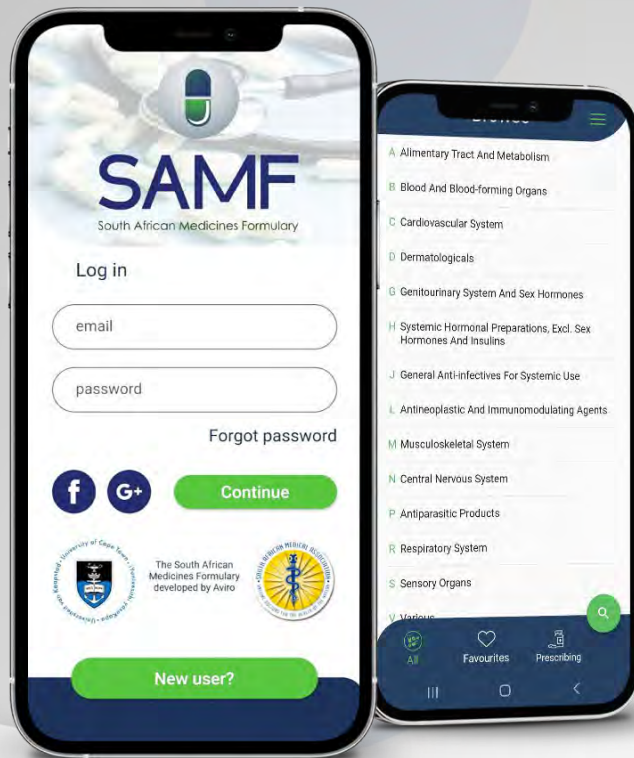


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Diane de Kock
Editor: *SAMA INSIDER*

New directions

Welcome to the May issue of *SAMA Insider*. This month we celebrate new innovations and new directions, and highlight some of the many challenges facing our healthcare workers.

24 March was World TB Day, a time to shine a light on the need for vaccine innovation, lessons learned from COVID-19 and the need for new approaches to fight a curable disease. See our TB feature on pages 10 - 12.

SAMA is moving in a new direction. To celebrate this, we begin a series of articles introducing members to the SAMA Board. In this issue, meet vice-chairperson, Dr Edward Ngwenya (page 5).

Around 80% of the world's population is estimated to use traditional medicine, but "national health systems and strategies do not yet fully integrate the millions of traditional medicine workers, accredited courses, health facilities and health expenditure" (page 6). To address this, the WHO has established a Global Centre for Traditional Medicine in India.

In the same vein, the University of the Free State and FARMOVS have teamed up to conduct the first SAHPRA-approved clinical trial of a plant-based product, Phela, on mild-to-moderate COVID-19 patients (page 7).

United by Hope have launched a training programme to demystify myths and stigmas related to blood disorders and blood cancers. This new direction is motivated by the fact that every 5 minutes, someone in SA is diagnosed with a blood-related disorder (page 8). "Community engagement is essential in the fight against blood cancers," says Alana James, DKMS Africa executive director.

Close to 91% of people with mental illness in SA do not receive treatment, and it is estimated that one in three South Africans will experience mental illness in their lifetimes. This has highlighted the need for better human rights protection for mental health patients (page 15).

On 11 March, SAHPRA approved the dapivirine vaginal ring, the first long-acting HIV prevention method for women (page 20). The silicone ring could mean long-lasting protection against HIV.

African World Heritage Day is celebrated on 5 May. This day presents an opportunity to honour our accomplishments, to recognise healthcare workers for what has been achieved in our medical history and to acknowledge the need to rise to the unique challenges presented in our healthcare space.

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10 April: SAMA averts liquidation by its union over ZAR307 m

In April both *Rapport* and *Medical Brief* reported that SAMA has averted a liquidation application at the Gauteng High Court (Pretoria) by its union subsidiary, SAMATU, in a dispute over the repayment of R307 million in membership contributions.

In 2021, the Labour Appeals Court ordered SAMA to return the membership contributions as it had unduly taken advantage of the trade union structure to benefit financially from it. SAMATU was run as a subsidiary of SAMA, while the Labour Relations Act No. 66 of 1995 demands independence of unions. The Labour registrar placed SAMATU under administration in 2019.

Administrator Gerhard Vosloo applied for SAMA's liquidation, saying he was not getting co-operation to take control over SAMATU's assets. In the liquidation application, SAMA disputed the amount, and also claimed that SAMATU owes it more than ZAR15.5 million.

Judge Norman Davis held that there are serious disputes of fact that influence the question of whether or not SAMA is solvent. Davis said all SAMATU contributions are now paid over to the union instead of SAMA, and there is therefore no continuous prejudice.

Liquidating SAMA would deprive all members of SAMA and SAMATU of crucial services. It would therefore not be just and equitable to order the liquidation.

5 April: SAMA welcomes lifting of National State of Disaster

SAMA welcomes the lifting of the National State of Disaster (NSD) by President Cyril Ramaphosa as a positive step for SA and the correct move forward for the country's

beleaguered economy. The NSD was instituted 750 days ago on 15 March 2020.

Considering the decreasing number of COVID-19 cases in the country, ending the NSD is the appropriate step in government's response to the pandemic. SAMA supports the decision in the same way that it supported the decision to institute the NSD as a means to deal with the impact of COVID-19 at the beginning of the pandemic.

Over the past 2 years, hospitals have been confronted with serious resource challenges, including human resources. Nevertheless, healthcare workers have contributed immensely, often at huge personal expense, to caring for patients.

SAMA made a submission on the draft new health regulations

While the NSD has now ended, the President announced several transitional measures for the next 30 days. These include the compulsory wearing of facemasks indoors, restrictions on the number of people at gatherings and provisions relating to international travellers. SAMA supports these transitional restrictions. Furthermore, SAMA underscores the fact that intensive campaigning for more people to vaccinate against COVID-19 needs to continue unabated despite the NSD being lifted.

The association stresses that the medical profession has learnt many invaluable lessons during the pandemic, which must inform public health in SA into the future. SAMA will therefore make a submission on the draft new health regulations before 16 April, with a view to strengthening government's response to public health challenges and ultimately, improving patient care throughout the country.

28 March: Senseless killing of Soweto doctor will leave a deep void

SAMA is saddened, shocked and angered at the killing of Dr George Koboka (56) at his surgery in Soweto on Friday.

Dr Koboka was a member of SAMA since 1998, and was a respected and loved physician in his community and within the SAMA family.

Government and law enforcement agencies should act to ensure the safety of patients and healthcare providers

SAMA expresses its heartfelt condolences to the friends, family and colleagues of Dr Koboka.

According to news reports, Dr Koboka was shot and killed after four gunmen entered and robbed his patients of their cellphones. The reports also indicate that Dr Koboka was robbed – possibly by the same gunmen – a week earlier.

SAMA says the senseless killing of Dr Koboka again places the spotlight on crime in SA, and the violent nature of mindless crimes that lead to the death of valuable members of society. It says his death will leave a void in the provision of quality medical services in Soweto and in SA.

The association says it is incumbent on government and law enforcement agencies to act swiftly in dealing with all crimes, and to ensure the safety of patients and healthcare providers across the country. Without this intervention, SAMA says, more and more doctors will feel threatened and anxious to practise in the country, and seek safer refuge in other countries, while their skills and expertise are badly needed locally.

Introducing SAMA board members: Dr Edward Ngwenya

SAMA Communications

This article is the first in a series introducing the 2022 SAMA Board to members. Meet vice chairperson, Dr Edward Ngwenya.

Where and when did your medical career start?

My medical career started while a medical student, long before “formally practising”. As students in places like Chris Hani Baragwanath, Helen Joseph and Charlotte Maxeke (then known as Johannesburg General Hospital), we virtually worked as junior doctors, and were involved in multiple levels of patient care. Thus I had a resolve and commitment that I was a doctor before the certificate could confirm it. My years as an intern were later spent in Kalafong Hospital (Pretoria) and many other hospitals thereafter, which include Klerksdorp Hospital Complex, Tembisa Hospital, and Steve Biko Academic Hospital.

Please tell us a bit about your background

I was born in Benoni, into a close-knit family of six (Mom, Dad and three siblings). My parents initially started off as teachers and eventually both ended up with PhDs in their respective areas of expertise, and prioritised education and strict discipline. My passion for academia and resolve for excellence certainly found its roots there.

Leadership and service have also always been a part of my journey, starting off as being, *inter alia*, in the top 10 high school prefect leadership, first black president of the University of the Witwatersrand (Wits) Medical Students Council (MSC), chairing the All Faculties Student Council at Wits, secretary-general of the Junior Doctors Association of SA (JUDASA), chair of my regional SAMA branch (Eastern Highveld), chair of all SAMA Branch Chairs, and finally my current position on the Board of Directors.

When and why did you decide to join SAMA?

I joined SAMA while a student in my final years of medical school. This was at a time when we were trying to consolidate ourselves as medical students representative councils around the country into a unified group. We



Dr Edward Ngwenya

thought SAMA to be the best vehicle and umbrella body for that purpose.

Why did I join? The reason was simple, to make an active difference in the medical profession, not only for our members, but for everyone else that relies on our profession's wellbeing. This includes the communities we serve. This remains my heartfelt passion. Otherwise, why do all of this? It takes much time away from family, and significant effort, and all without financial gain. You need passion and purpose to survive in this avenue. It's a calling.

What is your field of specialisation/interest?

Apart from my other degrees, I hold two medical specialties. I am a specialist general surgeon, and a plastic and reconstructive surgeon. People often ask me why I went back to school after being a consultant (specialist), taking on another 5-year specialty as a plastic surgeon. The answer lies in my areas of interest and expertise, which are breast surgery and body contouring surgery (both cosmetic and reconstructive).

In general surgery, most of the focus is on preservation of life. A patient would come with trauma or malignancy, and our aim would be to save the life of the patient through removal

of the cause (such as cancer, or amputation of a limb). Although certainly an integral and imperative component of care, it was less attentive to quality of life thereafter, as one often had to live with an unsightly defect. As a result, I also wanted to focus, over and above the preservation of life, on the quality of life after surgery, through perfecting reconstructive measures to return the appearance and function of the patient to as close to normal as before the insult. Therefore, I am now able to offer a holistic service to a patient, through this lengthy and demanding course of studies. Quality and excellence take time.

Please tell us a bit about your family, and how you spend your free time

Oh, that's the delight of my life, my family. They are an absolute joy. Although my schedule is extremely busy, I try my level best to apply measures to make sure I'm present as a husband and father. Weekends are generally off and allocated to time with them, unless otherwise dictated to by unforeseen circumstances. We do a lot of activities together, as well as with our extended families.

Things I enjoy doing include, but are not limited to, reading, cooking, travelling and playing golf (when I get the time).

What is your vision as vice-chairperson of SAMA?

I believe SAMA has a lot to offer as an umbrella association for all doctors in SA. I would like to see us focusing more on issues that matter and unite us as a profession, and less on issues that divide us. There's a Kikuyu adage, “When two elephants fight, it is the grass that suffers.” I hold that proverb close to my heart.

My focus areas that I would like to see the profession united on would be its stances on issues such as NHI, its own Medical and Dental Council, private specialist and GP medical aid rates for services rendered, criminalisation of medicine, public sector working conditions and compensation, and last but not least, academic research output.

I look forward to serving as best as I can and leaving a better legacy and foundation for those to take the baton long after we are gone.

WHO establishes the Global Centre for Traditional Medicine in India

World Health Organization

On 25 March 2022, the WHO and the government of India signed an agreement to establish the WHO Global Centre for Traditional Medicine (GCTM). This global knowledge centre for traditional medicine, supported by an investment of USD250 million from the government of India, aims to harness the potential of traditional medicine from across the world through modern science and technology to improve the health of people and the planet.

Around 80% of the world's population is estimated to use traditional medicine. To date, 170 of the 194 WHO member states have reported the use of traditional medicine, and their governments have asked for the WHO's support in creating a body of reliable evidence and data on traditional medicine practices and products.

"For many millions of people around the world, traditional medicine is the first port of call to treat many diseases," said Dr Tedros Adhanom Ghebreyesus, WHO Director-General. "Ensuring that all people have access to safe and effective treatment is an essential part of the WHO's mission, and this new centre will help to harness the power of science to strengthen the evidence base for traditional medicine. I'm grateful to the government of India for its support, and we look forward to making it a success."

The term "traditional medicine" describes the total sum of the knowledge, skills and practices indigenous and different cultures have used over time to maintain health and to prevent, diagnose and treat physical and mental illness. Its reach encompasses ancient practices such as acupuncture, ayurvedic medicine and herbal mixtures, as well as modern medicines.

But today, national health systems and strategies do not yet fully integrate the millions of traditional medicine workers, accredited courses, health facilities and health expenditures.

"It is heartening to learn about the signing of the host country agreement for the establishment of the GCTM. The agreement between Ministry of Ayush and WHO to establish the WHO-GCTM at Jamnagar, Gujarat, is a commendable initiative," said HE Mr Narendra Modi, Prime Minister of India.



"Through various initiatives, our government has been tireless in its endeavour to make preventive and curative healthcare affordable and accessible to all. May the global centre at Jamnagar help in providing the best healthcare solutions to the world."

Traditional medicine is also increasingly prominent in the world of modern science.

Some 40% of approved pharmaceutical products in use today derive from natural substances, highlighting the vital importance of conserving biodiversity and sustainability. For example, the discovery of aspirin drew on traditional medicine formulations using the bark of the willow tree, the contraceptive pill was developed from the roots of wild yam plants and child cancer treatments have been based on the rosy periwinkle. Nobel prize-winning research on artemisinin for malaria control started with a review of ancient Chinese medicine texts.

There has been a rapid modernisation of the ways traditional medicine is being studied. Artificial intelligence is now used to map evidence and trends in traditional medicine and to screen natural products for pharmacokinetic properties. Functional magnetic resonance imaging is used to study brain activity and the relaxation response that is part of some traditional medicine therapies

such as meditation and yoga, which are increasingly drawn on for mental health and wellbeing in stressful times.

In addition, traditional medicine use has also been updated by mobile phone applications, online classes and other technologies.

The new WHO centre will be established in Jamnagar, Gujarat, India. While Jamnagar will serve as the hub, the new centre is being designed to engage and benefit all regions of the world.

It will concentrate on building a solid evidence base for policies and standards on traditional medicine practices and products, and helping countries integrate them as appropriate into their health systems and regulate their quality and safety for optimal and sustainable impact.

The new centre focuses on four main strategic areas: evidence and learning; data and analytics; sustainability and equity; and innovation and technology, to optimise the contribution of traditional medicine to global health and sustainable development.

The onsite launch of the new WHO GCTM in Jamnagar, Gujarat, India, took place on 21 April 2022.

For more information, see [who.int/initiatives/who-global-centre-for-traditional-medicine/](https://www.who.int/initiatives/who-global-centre-for-traditional-medicine/).

UFS partners with SAHPRA for first clinical trial on traditional plant-based treatment of COVID-19

SAMA Communications

The Department of Pharmacology at the University of the Free State (UFS) and FARMOVS have teamed up to conduct the first SA Health Products Regulatory Authority (SAHPRA)-approved multicentre controlled clinical trial of a plant-based product, Phela, on mild to moderate COVID-19 patients.

According to Prof. Motlalepula Matsabisa, professor and director of pharmacology at UFS, it is anticipated that the trial will start in early April, with each patient being on treatment for 28 days.

"The main purpose of the clinical trial is to confirm that the product can treat COVID-19 and be registered as a medication for this indication. We believe the medication works as an immune modulator to modulate the cytokine storm due to COVID-19, and also restores and normalises the patient's immune system. We plan to enrol 250 patients who suffer from mild to moderate COVID-19," said Matsabisa.

This pivotal study, he says, is based on the modification of the WHO master protocol for clinical trials. The use of FARMOVS, a wholly owned clinical research company of the UFS Bloemfontein campus, for this clinical trial was to implement the collaborative initiatives between UFS and FARMOVS on clinical research, training and other research projects.

What is Phela?

Matsabisa, deputy president of the SA Society for Basic and Clinical Pharmacology, says the development of Phela has been under stringent scientific scrutiny for its safety in both preclinical and clinical research. The efficacy of Phela as both an immune modulator and an anti-SARS-COV-2 agent has been proven *in vitro* and *in vivo* with reproducible results conducted by three independent research institutions and a science council.

The Department of Pharmacology and FARMOVS are collaborating on a number of studies to advance clinical research on African traditional medicines.

On the use of Phela, Matsabisa said: "Phela is a herbal product made of four medicinal plants. Traditionally, it has been claimed for use for a historical disease called muyaga, but recently has been scientifically tested



Prof. Motlalepula Matsabisa

and found effective as an immune modulator benefiting persons with a compromised immune system.

"The Phela plants are found in most provinces of SA, and we have cultivated them to control their growth to produce quality raw materials.

"The SAHPRA-approved clinical trial will be conducted in the Eastern Cape, Northern Cape and Gauteng. It will be conducted by a complement of medical staff and clinicians with vast experience of many active years of clinical trials.

"The study, we believe, is a benchmark for all future traditional medicines clinical trial protocols and studies. The research is expected to start immediately after the product batch manufacturing of the study product, Phela, is completed, and this will be within a month's time. A lot of good scientific preclinical safety and efficacy research has gone into the development of the study product for it to reach this stage.

"The efficacy studies have shown convincingly that Phela is an immune reconstitution product and does have an effect in killing the SARS-COV-2 virus and most of its variants. Phela efficacy, therefore, needs to be confirmed through randomised controlled multi-centre clinical trials in COVID-19 patients," Matsabisa says.

Medicinal plants previously used to eradicate life-threatening viruses

Although medicinal plants have been used to combat previous pandemics such as the Spanish flu, avian influenza and others, the efficacy of such treatments is still to be supported by scientific research and development, adds Matsabisa.

Matsabisa, the current chairperson of the WHO Regional Expert Advisory Committee on Traditional Medicines (REACT), says: "We have better technologies and resources now, which is why we should take the next step in research to promote consumer safety and to offer them effective alternatives. We do the science to aid in building the herbal industry and developing sustained consumer confidence in traditional medicines."

Africa should lead the way to a healthier future for all

He said his vision was "for Africa to share our valuable resources with the world by developing and distributing world-class medicinal solutions".

"We should develop and strengthen the pharmaceutical local production of well-researched, quality, safe and efficacious African traditional medicines as commercial products. We are more than capable of doing so, and now is the time to do it. Numerous discussions have taken place and other African countries will join SA in conducting multi-centre studies in clinical trials for traditional medicines.

"We need to develop or create, based on this current collaborative work with partners such as FARMOVS, health centres with a strong focus on African medicines, health products and healing, but in a very strong collaborative initiative with other health systems," he said.

Matsabisa was recently awarded a visiting professorship at the Beijing University of Chinese Medicine in China. He was also recommended to Naledi Pandor, Minister of International Relations and Cooperation, to be part of the India, Brazil and SA (IBSA) working group in traditional medicine, through his participation in the National Department of Health technical committee on traditional medicines, where he was appointed by Minister of Health Dr Joe Phaahla.

United by Hope campaign on blood disorders and stem cell transplantations reaches Khayelitsha youth

SAMA Communications

“Community engagement is essential in the fight against blood cancers” – these are the words of DKMS Africa executive director Alana James, following a successful youth training workshop that was held in Khayelitsha last Saturday with 22 youth from the community. “The workshop is the beginning of a series of workshops that are aimed at bringing the message of blood cancer and blood stem cell transplantations to grassroots and community level. The insights that we gained on Saturday are significant, and we are very excited to be able to report on them and duplicate these across other communities”, said James.

Called “United by Hope”, the aim of the training programme is to teach youth and community-led groups about blood disorders and blood cancers while at the same time demystifying myths and stigmas related to the illnesses. SA is not exempt from the scourge of blood disorders, with statistics painting a grim picture of rising diagnosis rates. Every 5 minutes, someone in SA is diagnosed with a blood-related disorder.

Blood cancer develops when the bone marrow and blood cells become affected by cancer and stop functioning – they no longer fight against infections or repair cells in the body. People diagnosed with blood cancer must then depend on the goodness of others to donate blood stem cells so they can survive.

Saturday’s community engagement was held in collaboration with Jaay Blacks Youth Foundation, a youth initiative that drives youth social projects in Khayelitsha focusing on employment opportunities, crime prevention, education and engagement. Founder Jaay Mpeqeka said she joined the project out of a great concern about the lack of information and awareness about blood disorders and cancers. “I have participated in many blood stem cell donor drives and am well acquainted with the struggles of people and organisations that work in the space. Our role at Jaay Blacks is to firstly gain the necessary factual information, and then ensure that we transmit and share this information in our own communities.”



22 youth from Khayelitsha attended the workshop



Bringing the message to the community

The information session was facilitated by DKMS Africa at The Spade Hotel, the first four-star hotel in a SA township.

Feedback from two of the attendants included: “I have learnt about blood cancers and blood disorders and how to help those in need. I am so happy that I was a part of the DKMS Africa workshop” (Awonke Marafela).

“Having cancer is not the end of the world. People should register to become donors as you do not know when it will be your loved one that may be diagnosed with a blood disorder in the future and may need help” (Buhle Dyomfana).

Dr Theo Gerdener, medical director at DKMS Africa, which is the SA entity of the global DKMS

family, explains, “There are three main types of blood cancer, namely leukaemia, which affects white blood cells and bone marrow, lymphoma, which directly affects the lymphatic system – the body’s shield against infectious diseases, and myeloma, which is a tumour of the blood plasma cells that produce antibodies.”

There is no specific cause for blood cancer. Some factors are related to age, heredity, weakened immune system, infections, HIV/AIDS, smoking, excessive alcohol consumption, exposure to chemotherapy, organ transplantation, usage of certain hair dyes, certain kinds of petrochemicals and maternal-fetal transmission in rare cases.

Treatment of cancer depends on the type of cancer, age, severity and many other factors. Some of the common treatments are radiation therapy to destroy cancer cells and relieve pain, chemotherapy to destroy cancer cells and ultimately, stem cell transplantation.

James concludes, "DKMS has registered over 11 million donors worldwide. Anyone who is healthy and between the ages of 18 and 55 is eligible to register, and if they are a successful match, the process of donating blood stem cells is painless, with no surgery or anaesthetic, and is similar to donating blood."

Four out of 10 people looking for an unrelated matching donor worldwide are not able to find a match. According to various global studies, other racial groups are much less likely to find a suitable blood stem cell donor than their counterparts of European descent. Patients of African descent have less than 20% likelihood of finding a match, compared to 75% for white

About DKMS

DKMS is an international non-profit organisation dedicated to the fight against blood cancer. Founded in Germany in 1991 by Dr Peter Harf, DKMS and the organisation's over 1 000 employees have since relentlessly pursued the aim of giving as many patients as possible a second chance at life. With over 11 million registered donors, DKMS has succeeded in doing this more than 95 000 times to date by providing blood stem cell donations to those in need. This accomplishment has led to DKMS becoming the global leader in the facilitation of unrelated blood stem cell transplants. The organisation has offices in Germany, the USA, Poland, the UK, Chile and SA. In India, DKMS has founded the joint venture DKMS-BMST together with the Bangalore Medical Services Trust. International expansion and collaboration are key to helping patients worldwide, because like the organisation itself, blood cancer knows no borders.

patients. This is why it's essential for people of African descent to become stem cell donors.

If you are in general good health and between the ages of 18 and 55, please consider joining the registry – all it takes is a few minutes of your time and a simple cheek swab. For more

information or to register as a donor, please visit www.dkms-africa.org or call 0800 12 10 82, weekdays between 08h30 and 16h30. Once you have registered online, a swab kit is sent to you via courier and then collected when you have completed the process.

Life Healthcare's Hilton Hospital receives SA's first Novalis Circle certification

SAMA Communications

The Life Oncology radiotherapy unit at Life Hilton Private Hospital in KwaZulu-Natal has made history by becoming SA's first private hospital to be awarded the coveted Novalis Circle certification, joining the prestigious community of hospitals globally that have demonstrated the requisite clinical capabilities and standards for safe and effective treatment delivery.

Novalis Circle is a worldwide network of clinicians dedicated to the advancement of radiosurgery. The network provides communication and collaboration for developing new ideas and optimising cancer treatments. Radiosurgery, also called stereotactic radiosurgery, uses precisely targeted radiation to destroy tissue without cutting.

Built on the recommendations of the Novalis Expert Panel, the Novalis Certified programme adds value to radiotherapy centres by promoting the independent external review of specialised procedures and workflows, as well as the collaborative approach necessary for high-precision radiation treatments.

"We are very proud to be Novalis certified. Novalis is an independent accreditation programme that promotes the delivery of cranial (brain and head and neck areas) and extracranial (body) radiosurgery at a level of efficacy and safety commensurate with high standards of clinical practice," said Noeleen Phillipson, senior manager, new business, at Life Healthcare.

"Receiving the certification demonstrates Life Oncology's radiotherapy unit at Life Hilton Private Hospital's commitment to Life Healthcare Group's purpose of making life better through its patient-centric approach to providing treatment and care of the highest quality. This is a great milestone for us."

Phillipson said Novalis' in-depth accreditation is achieved through a rigorous onsite and offsite review process, which focuses on procedures and protocols that are aligned to international standards for benchmarking.

"The process ensures that quality checkpoints are in place at the Life Oncology unit in relation to other international centres – providing a review and discussion to offer

improvements and key areas for procedural enhancements of services offered at the unit," she said. "Our radiotherapy team has worked tirelessly in the development of work procedures and protocols to ensure compliance with these international standards, which we believe will positively impact our cancer patients' treatment journeys."

Due to the nature of the radiotherapy services provided and the related potential side-effects of the treatment options, the accreditation serves as a quality assurance measure to ensure that the equipment and services at the unit are provided at an optimal level to ensure patient safety.

Life Oncology, Life Healthcare's dedicated oncology and radiotherapy service, remains committed to providing access to high-quality oncology treatments for cancer patients receiving treatment for their disease.

Prof. James Robar, the chief of medical physics in Nova Scotia and director of MSc and PhD medical physics programmes at Dalhousie University in Halifax, Canada, served as the Novalis Circle auditor.

TB prevention has relied on the same vaccine for 100 years. It's time for innovation

Bavesh Kana, head of the Centre of Excellence for Biomedical TB Research, University of the Witwatersrand

Tuberculosis is one of the oldest infectious diseases in [recorded history](#). Most people who are ill with TB live in low- and middle-income countries where this disease is one of the leading [causes of death](#). This is particularly distressing given the fact that TB is preventable, treatable and curable. But there's currently only one vaccine approved against TB, and it is 100 years old. The first dose of the Bacille Calmette-Guérin (BCG) vaccine was administered on 18 July 1921. The *Conversation Africa's* Ina Skosana poses key questions to Bavesh Kana, one of SA's leading TB researchers.

It's been 100 years since the BCG vaccine was first used to vaccinate against TB. Why haven't there been any breakthroughs since then?

The BCG vaccine was developed from a strain of bacteria referred to as *Mycobacterium bovis*. These organisms closely resemble the bacteria that cause TB disease in people (*Mycobacterium tuberculosis*), and are usually found in animals that have TB-type disease.

The vaccine was generated over a period of [13 years](#) (roughly from 1908 to 1921) by two French scientists, Albert Calmette and Camille Guérin, hence the name Bacillus Calmette-Guérin.

At the time, they couldn't have known that it would become one of the most widely administered vaccines in human history. BCG has been used all [over the world](#) to protect against the development of TB. However, because TB has primarily been a disease of [the poor](#), there has been insufficient investment in the development of new vaccines over the past century.

Currently, BCG remains the only widely available vaccine for TB. This is sad, as the

rapid mobilisation to develop a COVID-19 vaccine over the last year has demonstrated that the world has the capacity to rapidly create vaccines. Yet a new TB vaccine has languished for decades because of poor funding, insufficient resources and diminished political will. Millions have died, something I believe that we now appreciate with a new urgency in the context of COVID-19.

Vaccine innovation is needed for TB because the protection provided by the existing vaccine wears off over time, and it's not completely effective in adults.

Developing vaccines and treatment is an incredibly costly undertaking. Conducting multi-centre clinical trials to demonstrate safety and efficacy in different populations over a period of years can cost billions. This requires concerted investment through partnerships with all stakeholders, including the governments of TB-endemic countries.

How effective is the vaccine?

BCG is usually administered only in infants, immediately after birth, in countries that have a high incidence of TB. The vaccine then produces an early immune response that has been demonstrated to protect children against severe forms of TB. In particular, BCG protects very well against the development of disseminated forms of TB. Usually TB occurs in the lungs, but the bacteria can also be found in other [parts of the body](#) – this is called dissemination. In children, the bacteria can be found in the brain – this is called TB meningitis. The BCG vaccine is very effective at protecting against TB meningitis, and is a great example of how vaccines can be of huge benefit.

However, this immunity usually wanes in adolescence and thereafter. Protection by BCG in adults is [highly variable](#) – ranging from 0% to 80% depending on the country and environment. The reasons for this remain a mystery, and much [effort](#) has been placed recently on developing biomarkers that will identify which new vaccines will eventually yield long-lasting immunity. Biomarkers are signals that one can pick up in blood or other clinical specimens that give a predictive sense of whether a vaccine is going to work. If a certain set of signals in blood predicts good protection, we can check if a new vaccine also induces the same set of signals.

How close are we to a new TB vaccine? What are some of the promising developments?

We still have some way to go. Recently, there have been two promising developments.

The first is a [study](#) that demonstrates that re-vaccination with BCG does indeed provide protection against TB disease. This is exciting as BCG is an approved vaccine, and if this approach demonstrates sustained durable protection, rolling out mass vaccination campaigns will be easier than starting with a novel vaccine.

The second comes from a [study](#) that demonstrates that a new vaccine from GSK (M72/AS01E) gave good protection in a clinical trial setting. In 2020, this vaccine was licensed to the Bill & Melinda Gates Medical Research Institute for continued development.

Source: The Conversation, 21 July 2021. <https://theconversation.com/tb-prevention-has-relied-on-the-same-vaccine-for-100-years-its-time-for-innovation-164735>.



Three lessons the COVID-19 pandemic taught us about tackling TB

Muluken Melese, Andre Zagorski

COVID-19 came with a lot of collateral damage that the world was unprepared for. Part of the pandemic ripple effect meant that some people weren't able to access TB testing or treatment, derailing targets to end the disease. But there are also lessons to be learnt.

TB is a curable disease. Yet deaths are up – [for the first time in a decade](#) – despite cases being down. Why? Because the coronavirus threw a spanner in the works.

The WHO [reports](#) that in 2020 the number of TB deaths reached levels last seen in 2017, despite the number of cases [falling by 1.3 million](#) between 2019 and 2020. This, they say, means that the [world is unlikely to reach its targets](#) of reducing TB infections by 20% or ending TB deaths [by 2030](#).

The situation is yet more collateral damage from a pandemic we were unprepared for, seeing countries enforcing strict lockdowns, and healthcare resources being diverted from established public healthcare programmes to urgently fight a new disease, which left many people unable to access TB testing or treatment.

Because of this, the [WHO forecasts that we will see more people](#) being diagnosed with TB and dying in the next year. And low- and middle-income countries will probably be hit hardest, not only because they suffer the highest disease burden but also because of the unequal economic fallout from the pandemic.

The World Bank estimates the pandemic has pushed [97 million more people into extreme poverty](#) – living on less than ZAR28 a day – than was expected before COVID. Economies in poorer countries will [take longer to bounce back](#) to pre-COVID levels than those of developed countries, the World Bank says, because wealthier states are expected to recuperate losses sooner.

But the news is not all bad – the COVID pandemic has also taught us valuable lessons. Here are three things we can take from dealing with COVID to help us tackle TB.

Use measures that worked for other airway diseases

Although the germs causing TB and COVID-19 are different, their spread can be curbed in the same way. That's because both TB and COVID-19 affect your respiratory system (airways and lungs), and [both spread](#) easily in [crowded settings when people cough or sneeze](#).

Public health statistics show that airway infections such as flu and pneumonia dropped dramatically in the first year of the pandemic. For example, US labs saw about [100 times fewer cases of flu](#) between September 2020 and May 2021 – flu season in the northern hemisphere – than the average over the 4 years before COVID.

And in SA, the National Institute for Communicable Diseases reported [almost no cases of respiratory syncytial virus infections](#), the main cause of bronchiolitis (inflammation of the small airways) and pneumonia in children younger than 1 year, in the 2020 season. Similar patterns were seen in [other countries](#).

Scientists think that these trends occurred because non-pharmaceutical interventions (NPIs) – such as wearing a mask, handwashing and physical distancing – helped to curb the spread of diseases. What's more, [a study from South Korea](#), which did not enforce a strict lockdown early in the pandemic, but was big on wearing masks, showed that the spread of respiratory infections could be thwarted significantly by NPIs.

Although the powerful effect of fairly cheap interventions, and getting people to change their behaviour, may be good news for the fight against TB, it doesn't mean we can sit back and relax. As forecasts for respiratory syncytial virus infections in children in SA show, COVID (and our response to it) did not wipe out respiratory diseases; it merely damped down cases in the short term. For a disease such as TB, the symptoms of which typically develop weeks to months after someone has been infected, low numbers now can create a false sense of security. It would be wise to use the brief respite COVID brought us to prepare for when cases flare up again. [Because they will](#).

Stop stigmatising masks

When diagnosed with TB, patients have to [wear a mask until they've been on medication long enough to not be infectious any more](#). This is because masks prevent people from expelling TB-causing germs into the air.

The advice has been out there for years, but people were reluctant to take it up. Because, as [Bhekisisa previously reported](#), before the COVID pandemic, wearing a mask was seen as signalling that someone has TB. Such stigma meant that people resisted [getting tested for TB or taking](#)

[up treatment](#), which in turn hindered efforts to control the disease.

COVID has changed that. We've grown used to seeing people wearing masks over the past 2 years. Instead of a symbol of illness, they've become a sign of solidarity to combat a common threat to many.

This can be good news for reducing the spread of TB in an affordable way. Research [published in the American Journal of Respiratory Care and Critical Medicine](#) in 2012 showed that wearing a mask can reduce the spread of multidrug-resistant (MDR)-TB by up to 56%. [MDR-TB](#) is a form of the disease for which commonly used TB drugs don't work, making it difficult – and expensive – to treat.

SA has a [disproportionately high number](#) of MDR-TB cases. So a simple, cheap intervention such as wearing masks can be a real boon in a country with an under-resourced public healthcare system. And COVID has shown that it's possible to get most people to buy into a behaviour change fairly quickly.

Test, test, test – and trace

The COVID pandemic has shown us how important testing is. Testing positive meant people could isolate while they were infectious, and so limit the number of people to whom they could potentially spread the SARS-CoV-2 virus. Similarly, contact tracing – at least in the early stages of the pandemic – was seen as a way to contain the spread of the virus, because people who might unknowingly have contracted COVID from a positive contact could be alerted early.

In the same way, catching TB early can go a long way towards curbing the disease. Because TB has a long incubation period – between becoming infected and developing symptoms – many people can be exposed to the germs by someone who doesn't know they're infected. In addition, TB is an [opportunistic infection](#), which means it's a disease that develops mostly in people with weak immune systems. TB can be hiding idly in your body while you're healthy, but if your immune system is weakened it can flare up or develop into a serious condition.

[People infected with HIV are especially vulnerable to developing TB](#). In fact, the WHO estimated that in 2017, about a third of people infected with HIV globally developed TB. Almost 70% of people with HIV/TB co-infection live in

sub-Saharan Africa. So testing for them together makes a lot of sense. We've seen good results from running combined HIV/TB services at 41 treatment centres in five states in Nigeria. And in Uganda, a "one-stop shop" for maternal health/HIV/TB services boosted the number of cases detected and treated.

Piggy-backing on existing facilities and expertise to deal with one disease can go a long way to handling another. For example, in

SA, systems developed earlier to monitor HIV patients' viral load (the amount of virus in the body) meant that laboratories could quickly put PCR testing (the gold standard for COVID) in place, because the know-how had already been established.

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This story was produced by the [Bhekisisa Centre for Health Journalism](#).

"Test and treat" is being used to tackle HIV. Why not TB?

Harriet Mayanja-Kizza, professor of medicine, College of Health Sciences, Makerere University

Worldwide, TB remains a significant cause of disease and deaths. Around 9.9 million people had the disease in 2020. The burden is higher in low- and middle-income countries. Africa accounts for 25% of TB cases.

TB is caused by a bacterium called *Mycobacterium tuberculosis*. Not everyone who gets infected with the bacterium will get sick. Once infected, a person has a 5% - 15% lifetime risk of developing active TB disease. Risk factors that contribute to people's susceptibility to getting ill with TB include HIV infection, diabetes mellitus, malnutrition, alcoholism and rheumatoid arthritis.

Based on my experience of researching and being involved in TB programmes in Africa over the past two decades, I would argue that TB control should take a leaf out of the approach adopted for HIV.

In the HIV care field, the current UNAIDS strategy is to "test and treat". This approach involves widespread community-based HIV testing. People testing positive for HIV are immediately placed on antiretroviral therapy.

This strategy has two key benefits: protection from HIV-infected persons progressing to AIDS, and a lowered risk of infecting others. This, in turn, will decrease the global HIV burden, and lead to improved health of the infected persons and less transmission to the uninfected.

What if the global TB management community adopted a similar strategy? Something akin to this is already implemented in high-income countries. Many routinely screen immigrants for *Mycobacterium tuberculosis* infection, and offer preventive treatments to those who test positive. This contributes to less TB disease in these countries.

There are a number of limitations to this strategy. These include the large population

vulnerable to infection, the risk of drug resistance and the probability of re-infection. Nevertheless, a "test and treat" approach could – if widely implemented – limit TB disease in low- and middle-income countries.

Current strategies

In high-income countries, people at high risk of TB disease undergo screening programmes even when they have no symptoms. Those who test positive for *Mycobacterium tuberculosis* infection are given preventive treatment for 3 - 9 months, depending on the regimen. This strategy has contributed to limiting active TB disease.

The idea has been mooted for developing countries, but it has not yet been introduced comprehensively.

In low- and middle-income countries, screening for infection and offering preventive medication are limited. These services are mainly promoted for children who have been in contact with an adult with TB disease, as well as people with HIV. Even this isn't implemented across the board.

In Africa, people are only screened once they show symptoms, such as a cough. Even then, there is often a delay in confirming a diagnosis, and sometimes even in initiating appropriate treatment. By the time the person starts any TB treatment, they may have infected a number of other people. This could be in their homes, in schools or in workplaces and social meeting places.

A study in Uganda showed that the risk of children getting TB infection after exposure to an adult in the home increased with age. With an additional risk factor such as overcrowding, undernutrition or HIV infection, household contacts of a TB patient stand a chance of getting active TB diseases over time.

Limitations

Introducing a "test and treat" approach would seem a logical way to go. There are, however, a number of factors that could make such a strategy difficult.

Firstly, the populations at risk are large, and the testing and treatment programmes are not easily affordable for many governments in Africa. This is true of HIV too. But those tackling HIV have nevertheless moved towards a global test and treat strategy.

Secondly, the drugs used for TB prevention are the same ones used for treatment. If the "healthy persons" offered TB preventive treatment do not take their medicines diligently, it would promote drug resistance, with disastrous consequences for the treatment of those with TB disease.

Thirdly, if a person takes medication for TB preventive treatment – usually one or two types of pills – when they are in early stages of unnoticed TB disease, which requires four types of pills, this may inadvertently lead to suboptimal treatment of the early TB disease, with the risk of negative consequences to the person due to inadequate treatment, and to others with TB disease in the long run due to drug resistance.

Fourthly, there is a risk of a person who has been given TB preventive treatment being reinfected, thus potentially requiring repeat preventive medication. But again, we need to learn from the HIV community, where this has not hindered them in the test and treat strategy.

Despite these challenges, I believe there is nevertheless merit in considering the "test and treat strategy" towards global TB control. But this would need the concerted effort of all players.

Source: The Conversation, 23 March 2022. <https://theconversation.com/test-and-treat-is-being-used-to-tackle-hiv-why-not-tb-179399>.

Deltacron: What scientists know so far about this new hybrid coronavirus

Luke O'Neill, professor, biochemistry, Trinity College Dublin

In many countries, as restrictions lift and freedoms are restored, there's a general feeling that the pandemic is over. There is, however, still the significant concern that a dangerous new variant could emerge.

This happened when Omicron arrived, but we got lucky with that one. Omicron turned out to be more transmissible, but mercifully it *hasn't caused* an increase in severe disease in most countries where it is dominant.

But this wasn't guaranteed. Variants crop up randomly, and new ones have the potential to be more dangerous than previous ones. Another has just arrived, and is currently going by the name Deltacron. It is – as you can probably guess – a hybrid of Delta and Omicron, the two variants dominant most recently.

Deltacron's story begins in mid-February, when scientists at the Institut Pasteur in Paris uploaded a genetic sequence of the coronavirus that *looked very different* from previous sequences. The virus sample came from an elderly man in northern France, and looked odd. Most of its genetic sequence was the same as Delta's, which was dominant worldwide up until late last year, but the part of the sequence that encodes the virus's *spike protein* – a key part of its external structure, which it uses to get inside cells in the body – came from Omicron.

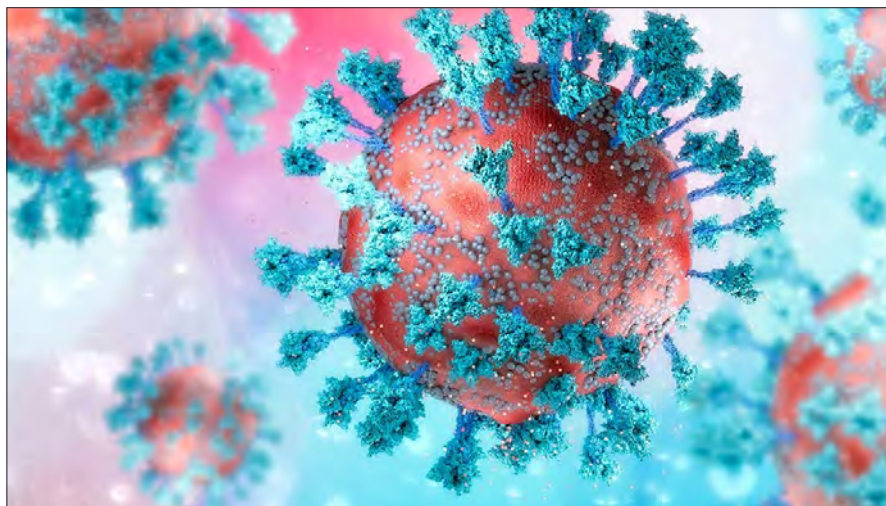
By March, three further hybrid genetic sequences had been reported, this time in the USA. There are now *over 60 logged*, across France, the Netherlands, *Denmark*, the USA and the UK.

There may, however, be different Deltacrons. Scientists at the Institut Pasteur have said the Deltacron sequences reported in the UK and USA have certain differences from those found in other countries. They've said that it might be necessary to add a number to these different forms of Deltacron, to indicate which is which.

How these hybrids formed

It's not unusual for viruses to mix and match parts of themselves if two different viruses infect one cell. This is called "*recombination*". One virus combines parts of its genetic sequence with parts from another related virus as it assembles copies of itself. It appears to happen at random during viral replication.

However, when there is a transfer of power from one viral variant to another – with one



variant becoming less common and another more so, meaning both are circulating in the population and there's a chance for them to simultaneously infect people – the chance of recombination happening increases. This will have been the situation as Omicron emerged to displace Delta as the most dominant form worldwide.

The chance of recombination happening will have increased when Delta and Omicron were both circulating at high levels.

Recombination usually creates a new virus that isn't viable, as the mixing of different genes can interfere with the virus's ability to make the proteins it needs to survive. But sometimes one does survive, and that appears to be what's happened with Deltacron.

Indeed, as the Deltacron hybrids found in the USA/UK appear to be different from those found in mainland Europe, it's possible that this has happened multiple times separately.

A chip off the old block?

At the moment, it's hard to say in what ways Deltacron will resemble its parents. Delta and Omicron are quite different viruses. *They differ* in how they infect cells and how they evade immunity. We still don't know enough about Deltacron to be able to tell how different it's going to be to either.

Because it has been found in multiple nearby countries, it's likely that Deltacron can spread. However, Omicron itself is *continuing to spread* widely in Europe, so it's still the

variant we need to be watching most carefully right now.

Time will tell if Deltacron will displace Omicron, and whether Deltacron will be any better at evading immunity and will cause more severe disease. There are currently too few Deltacron cases to draw any conclusions on these issues. What we need are experiments to determine the properties of Deltacron – scientists have *started that process* and have been able to infect cells with it, so hopefully we'll have answers in time.

In the meantime, we need to keep an eye on it. The fact that Deltacron has probably spread across borders emphasises the need for *ongoing genomic surveillance* to keep tabs on how the virus is changing and moving. As the coronavirus is continuing to spread widely and infect large numbers of people, it's likely that more variants will emerge – including through recombination.

We can, though, be somewhat confident that prior infection with other variants, as well as vaccination, will offer protection from severe disease should Deltacron begin to dominate. We know that vaccines, which are based on the original Wuhan strain of the virus, also protect against severe disease with the more recent variants. Time will tell whether Delta and Omicron have produced a wild child for us to worry about.

Source: The Conversation, 21 March 2022. <https://theconversation.com/Deltacron-what-scientists-know-so-far-about-this-new-hybrid-coronavirus-179442>.

Using humour in the medical consultation

Dr Chris Ellis



Using humour during a consultation requires a careful balance between relaxing the patient and not causing offence. I have learnt over the years that you need to get to know the patient first, so this is usually not a first-consultation intervention. You have to “feel it out”. I was taught by a wise old GP to use a small collection of corny humorous remarks to test the waters. They should not be negative or deride others, and should be neutral in character. OK, maybe you could have a go at our politicians, but you might find that the patient thinks they are wonderful.

An example of corny humour can be used when weighing the patient, as this can be a sensitive subject. The remark “I am now going to ruin your day by weighing you,” said in a humorous tone, can help to soften the encounter. It is the way you say it, and knowing your relationship with the patient and his or her character, that is important.

Humour is normally associated with those who are quick-witted and quick on the uptake – comedians are obviously in this category. A lot of it is common sense. “Common sense and a sense of humour are the same thing, moving at different speeds,” said the philosopher William James: “A sense of humour is just common sense dancing.”

It is inevitable that one will make some mistakes with patients who do not have an overt sense of humour. My collection of blunders have been along the lines of jokes

about subjects that were sensitive to the patient, such as alcohol or drug use, or cultural misinterpretations, which fell flat. I have three patients in my practice who I now know that I should not joke with. Their characters are such that they view life in a serious light (as opposed to being slow on the uptake).

You can use humour as a diagnostic tool, in the form of a light-hearted comment to test the depth of a depression or the extent of an anxiety state. I find that I subconsciously register both the verbal and non-verbal response on a “smile index”. Level one: no response. Level two: a flicker of a smile. Level three: the full smile.

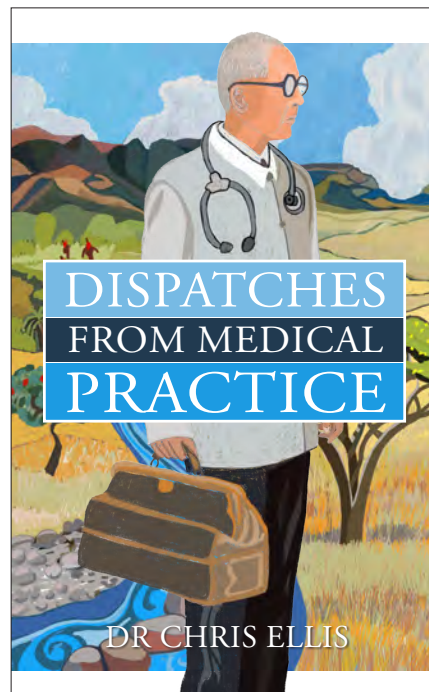
Patient-initiated humour around their illness, or about growing old or their frustrations with their health may also reveal their coping strategies and the current status of the patient’s mental state.

Some behavioural studies have shown that oxytocin is released from the pituitary gland in response to positive social interactions, particularly those that involve humour. This hormone has been implicated in establishing feelings of love, empathy and relationship-building between people, and causes a strong desire to continue these positive encounters.

The use of humour may therefore help to build and maintain a relationship. However, the caveat here is not to get carried away or overdo it. One can get drawn into a sense of false security when the patient uses humour as a defence mechanism. They may be distancing themselves from severe anxiety or stressful life situations. This can lead to a misinterpretation of the patient’s situation. The doctor’s humorous responses to the patient’s own light-heartedness can then have the opposite effect than what was intended – it may emphasise the bitterness of the condition.

Using humour may also help with diagnosing problems if a patient seems to be missing the point.

One must clearly avoid ridicule and sarcasm, but also never dead-pan. The humour should be accompanied by positive non-verbal signs and open gestures. This makes it easier for the patient to pick up the change in the atmosphere or attitudes in the consultation. Dead-pan is more opaque and difficult for the patient to negotiate in the serious context of a medical consultation.



You can use humour as a diagnostic tool

The positive effects of humour are that it may be used to create bonds of trust and respect, as well as help to negotiate difficult territory, especially when it comes to oncology consultations. If carefully done, humour acts as an ice breaker for further communication, and allows us to share in our humanity and unique human ability to help each other.

In his book *Man’s Search for Meaning*, Viktor Frankl refers to humour as “another of the soul’s weapons in the fight for self-preservation. Humour can give one the ability to rise above any situation, even if only for a few seconds.”

Its use in the medical consultation needs experience, intuition and caution, and it is always a fine balance.

SAMA member Dr Chris Ellis is a specialist family physician in Pietermaritzburg. This is an excerpt from his latest book *Dispatches from Medical Practice*, available from Bookworld@lantic.net or <https://www.amazon.com/dp/B09QQTWKBC>.

Better protection needed for mental health patients' human rights

SAMA Communications

One in three South Africans will experience mental illness in their lifetimes. Although evidence-based interventions have been developed, close to 91% of people with mental illness in SA do not receive treatment.

Poor access to quality mental healthcare may be related to reduced attention to the issue, ignorance, stigma, shortages of psychiatric medicines and scarcity of practitioners and facilities. This creates real potential for, if not the reality of, multiple violations of people with mental disabilities' and psychiatric patients' human rights.

In Human Rights Month 2022, with the deaths and human rights abuses of public sector mental health patients in the Life Esidimeni tragedy 5 years ago still fresh in the national memory, the SA Society of Psychiatrists (SASOP) has called on the government to act decisively to prevent further violations of the human rights of mental health patients. Human rights include not only the right to life, but also to equality (meaning easy access to quality healthcare) and human dignity, to name but a few.

Dr Kagisho Maaroganye, SASOP board member and public sector psychiatry national convenor, said that with over 70% of South Africans reliant on the public healthcare system, government should step up "as the ultimate protector of its citizens' human rights, and thus the foremost defender of our patients' rights".

"Good mental health is also a universal human right, and SA signed and ratified the UN Convention on the Rights of People with Disabilities (CRPD), but we are failing to implement the provisions of the convention, to use its reporting function for critical analysis of our situation, and to effectively use the mechanisms that we do have to protect the rights of people with mental disabilities.

"We call on government to dissect all the points where the human rights of our patients are likely to be violated – in their homes, within the wider community and while admitted to hospital – and take active steps to prevent these violations," he said.

In addition to improving the national budget allocation for mental illness

management and prevention, practical steps recommended by SASOP as a start to remedying the situation would involve government making more use of psychiatrists and technical experts on bodies tasked with assisting and advising on the rights of mental health patients, Dr Maaroganye said.

Mental health review boards, intended to be an independent local ombud ensuring that mental health patients' rights are not violated in the first place, should have greater professional capacity, SASOP argues.

Close to 91% of people with mental illness in SA do not receive treatment

"If the board is just made up of community representatives and advocates, that may not be enough to address violations of patients' rights. As SASOP we are calling for the inclusion of independent psychiatrists, retired or in private practice, into all district and provincial review boards. When a violation is identified, such a professional would be able to expertly and objectively review the processes that led to the violation, and propose solutions. They can then make informed recommendations on the most appropriate remedy to protect other patients," Dr Maaroganye said.

In addition, he said, government should make greater use of the technical expertise available in the mental health professions rather than relying on non-specialist administrators, managers and general medical practitioners.

"For example, in Gauteng and KwaZulu-Natal, the mental health technical advisory team consists of psychiatrists, psychologists and occupational therapists who advise the government on how to improve mental health services in the province. We are calling for other provinces to have similar, well-functioning specialist and technical teams.

"It is the technical experts, not the managers and administrators alone, that we need to figure out how to get us out of the current mental healthcare quagmire," he said.

Mental illness comes with social and economic costs, as a leading cause of disability, reduced life expectancy and greater risk of suicide. Psychiatric disorders have overtaken musculoskeletal conditions (i.e. physical disabilities) as the leading cause of medical disability claims in SA.

Dr Maaroganye said that the human rights of people with mental health disorders were violated by lack of access to appropriate care and treatment, which "is under-resourced in general and even more so in mental healthcare".

He said that inadequate budget allocations on public sector mental healthcare, as well as significantly increased spending at tertiary rather than community level, were felt in shortages of medicine, especially at the community level where the majority of patients receive treatment.

"The cost of chronic underspending is felt in rising suicide rates, the inability of mental illness sufferers to work and earn an income due to lack of treatment, and the burnout experienced by mental health practitioners.

"Psychiatrists are being forced to discharge patients earlier than advisable, because there are not enough beds to accommodate patients long enough for their condition to improve optimally. The serious, countrywide lack of child and adolescent clinics and wards is a contributing factor to teenagers and young people turning to substance abuse to alleviate their mental distress," he said.

Dr Maaroganye said lack of treatment for mental health conditions contributes to the epidemic of violence against women and children.

"With the low rate of access to treatment, the vast majority of people with common mental health disorders such as anxiety or depression suffer in silence. Tragically, the end of the suffering is often violent, either through suicide, violence against the sufferer or violence by the sufferer against others, including homicide and gender-based violence.

"In the meantime, people with mental illness face discrimination in the workplace and in job and business opportunities, and their displays of disorganised or unusual behaviours and speech patterns damage their reputation and standing in society," Dr Maaroganye said.

In addition, he said, the speech and social interaction impairments of mental health patients meant that they were often unable to speak for themselves and enforce their human rights. "Facing barriers of stigma, prejudice and ignorance that hamper them from seeking professional care, they are at risk of their families losing hope and

turning to unconventional treatment methods such as prolonged restraint," he said.

"A society without human rights is a society without dignity, no matter how rich it may be. A society where large parts of its citizens are mentally unwell is still poorer and unjust, even if everyone else is physically fit."

Destigmatising bipolar mood disorder can save lives

SAMA Communications

World Bipolar Day, 30 March 2022: Mental health conditions are among the most common health concerns reported throughout the world. In SA, it is estimated that 1 in 10 adults will have experienced major clinical depression at some point in their life, but only 25% of these have sought treatment and care.

Bipolar mood disorder is one of the most common mental health conditions, and according to the WHO, affects more than 45 million people around the globe. The outbreak of the COVID-19 pandemic and its devastating socioeconomic impacts has added further insult to injury, resulting in an increase in the number of mental health cases, including bipolar mood disorder.

Although there has been significant research on mental health conditions in SA, research on the prevalence of conditions such as depression and bipolar mood disorders has been scant. According to the Global Health Data Exchange, the estimated prevalence of major depressive disorder in SA in 2019 was 3.14%, and the estimated prevalence of bipolar mood disorder was 0.6% (but this is likely an underestimate, according to specialists and experts familiar with the subject).

Education and awareness for bipolar mood disorder are critical in addressing the stigma related to the condition, and ensure that the individual, their family and friends can better understand the treatments available, and can support those affected to live fully functional lives. In particular, individuals living with severe bipolar mood disorder symptoms, or who are not diagnosed or receiving effective treatment, may contemplate suicide, and in many cases succeed in their attempts. Through receiving the right treatment and support, suicidal thoughts can be managed to reduce the risk of self-harm or suicide. Therefore, greater awareness about bullying within schools or



the workplace should be driven to contribute toward fighting the stigma associated with mental health conditions.

Bipolar mood disorder may be categorised by either manic and depressive episodes, or a combination of both, which are mostly separated by periods of normal mood. Manic episodes involve endless energy, racing thoughts, decreased need for sleep, feelings of unlimited power, increased substance abuse, poor judgement, euphoric mood, irritability and impulsiveness, among other symptoms.

Depressive episodes, on the other hand, consist of anxiety, lack of appetite or excessive appetite, restlessness, self-doubt or feeling worthless, persistent sadness as well as suicidal thoughts in many cases, difficulty falling or staying asleep, loss of energy and inability to function at work, school and everyday life. People who experience manic episodes but do not experience depressive episodes may also be diagnosed with bipolar mood disorder. The exact cause of bipolar mood disorder is unknown, but several factors may be involved, such as biological differences, where people appear to have physical changes in their brains. However, a genetic link is the more common indication, where individuals have a first-degree relative, such as a sibling or parent, with the condition.

"Bipolar mood disorder can be a devastating health condition that not only affects the patient but the patient's loved ones, friends and caregivers, who often have to carefully navigate the effects that both manic and depressive episodes have on the individual and their

family. Talking about signs and symptoms and educating people about effective treatment helps to destigmatise mental health conditions such as bipolar mood disorder. Mental health disorders are not something to fear, and through empowering people with information we can make a difference in many people's lives. With the right treatment, a multidisciplinary team approach and psychosocial support, bipolar mood disorder can be managed," says Dr Jorgen Kahler, a psychiatrist at Life Poortview.

Through Life Mental Health, a leading provider of private mental health services in SA, Life Healthcare provides comprehensive mental healthcare at nine dedicated facilities across four provinces.

"Our dedicated mental health facilities specialise in the treatment of general psychiatry such as bipolar mood disorder, anxiety, depression, schizophrenia, post-traumatic stress disorder or other mental health conditions associated with substance use disorders," says Dr Kahler. Effective treatments for bipolar mood disorder are available at these Life Mental Health facilities to promote optimal health and the prevention of relapse. Treatment programmes are facilitated by multidisciplinary healthcare professional teams, developed to achieve optimal outcomes through short-term treatment in tranquil and therapeutic environments conducive to recovery.

If you suspect that you or a loved one is suffering from bipolar mood disorder, it's important to consult a mental health professional. This can be done directly or through your GP.

It's booster time: People with weak immune systems will be able to walk in for an extra COVID shot

Mia Malan, Dylan Bush, *Bhekisisa Centre for Health Journalism*

The system that SA uses to track COVID-19 vaccines will be updated to allow people with weak immune systems to come in for a booster shot. This will be in addition to the extra dose they received last year, as the jabs offer less protection in people with certain health conditions, such as cancer or HIV.

People with certain illnesses or who are on treatments that weaken their immune systems can get an extra shot of a COVID vaccine because the normal number of doses don't work well enough for them.

Those are people with conditions such as blood cancer or HIV infection that doesn't respond well to treatment, or people who have had liver, kidney, heart or lung transplants. There is a list of all the conditions that qualify for an extra shot on the government's coronavirus website.

In SA, everyone who is 12 years and older with any condition on that list can have an extra shot, so a third shot of the Pfizer vaccine or a second shot of the Johnson & Johnson (J&J) jab. They can have that shot 28 days after their last shot.

What is an immunocompromised shot?

The extra shots that people with weak immune systems get are not the same as a booster dose. Immunocompromised people get their extra shot as part of their primary vaccination schedule, so where a person with a normal immune system will get two Pfizer doses, an immunocompromised person will get three doses. For J&J, a person with a weak immune system will get two jabs instead of one.

A booster is something that a fully vaccinated person gets in addition to their primary vaccination schedule, because the efficacy of vaccines wanes over time.

So that means that an immunocompromised person still qualifies for a booster on top of their extra immunocompromised dose.

How soon after an extra immunocompromised shot can someone get a booster?

The waiting period for a booster dose for immunocompromised people is exactly the same as for everyone else. The only difference is that they calculate the waiting period from the date on which they had their additional immunocompromised dose, and other people start to calculate it from the date they had their second Pfizer or first J&J jab.

So an immunocompromised person who has had three Pfizer doses can get a booster shot, so a fourth dose, 90 days after their third dose. And people with weak immune systems who have had two J&J jabs can have a booster dose 60 days after their second shot, and another booster dose 90 days after that – and that's not a special arrangement for immunocompromised people, because everyone who had J&J as their first shot now qualifies for two booster doses.

But remember that the health department allows you to mix and match booster doses, so you don't necessarily need to use the same vaccine that you got in your primary schedule to get boosted with. You can also mix and match an immunocompromised shot. The only rule is that if you had the J&J vaccine as



your original shot, the health department says you can't get more than three J&J shots, so one of the four shots that a person with a weak immune system gets needs to be Pfizer.

What does an immunocompromised person need to do to get a booster dose?

Just like everyone else, they will simply be able to walk in at a vaccination site and get a booster dose.

But not yet, because the Electronic Vaccination Data System (EVDS), which is the system on which the health department records your vaccinations, hasn't yet been updated.

But the department says the system will be ready on 9 April, and people with weak immune systems should then be able to get their boosters.

Source: Bhekisisa, April 1, 2022. <https://bhekisisa.org/multimedia/2022-04-01-watch-its-booster-time-people-with-weak-immune-systems-will-soon-be-able-to-walk-in-for-an-extra-covid-shot>.

What makes young people accept help to stay well: A review of interventions in Africa

Marisa Casale, *extraordinary professor, University of the Western Cape*, Genevieve Haupt Ronnie, *research fellow, University of Cape Town*, Oluwaseyi Dolapo Somefun, *postdoctoral fellow, University of the Western Cape*

Anyone who has ever tried to convince an adolescent to behave in a certain way is likely to be familiar with

resistance. So, when offering support to help young people to stay healthy, happy and out of difficulty, it's worth knowing what they are

comfortable with. Interventions that young people find acceptable are more likely to work. But what do they find acceptable?

There isn't much research about this in low- and middle-income countries, specifically in Africa or beyond the health sector. This is despite the fact that there are [360 million people](#) aged 15 - 24 on the continent. Many face challenges to their wellbeing. These include low educational attainment, unemployment and poor access to healthcare.

To explore this, we systematically [reviewed](#) studies published over the past decade (2010 - 2020). The research assessed the acceptability of interventions with adolescents and young people aged 10 - 24 in Africa.

We wanted to know what young people find acceptable in an intervention, and why. We included all types of interventions that aimed to improve outcomes outlined in the [Sustainable Development Goals](#). Most were linked to the goal of ensuring healthy lives and promoting wellbeing – HIV testing is one example.

We identified a number of factors that developers of interventions should pay attention to. One recommendation arising from our review is that adolescents and young people be involved early in the design, planning and scale-up of interventions.

Focus of studies

We found 55 studies evaluating 60 interventions for acceptability. Most of these studies were carried out in southern and east Africa, mainly SA and Uganda.

Most focused on HIV or sexual and reproductive health interventions. Based on the way interventions were delivered, 10 could be categorised as HIV or HPV vaccine interventions, 10 as e-health, 8 as HIV testing interventions, 7 as support group interventions and 6 as contraceptive interventions. There were also programmes for voluntary medical male circumcision and pre-exposure prophylaxis (PrEP) to reduce the risk of HIV transmission.

Overall, the interventions were well accepted. This could indicate that they were well aligned with young people's needs and preferences. It is also possible, though, that studies with more positive results are more likely to be published.

What's acceptable and what's not

The reasons most frequently raised by young people to explain why they found interventions acceptable were:

- ease of use of the product or intervention
- knowledge of the intervention or

- knowledge provided by the intervention
- the intervention allowing for (greater) autonomy
- feeling supported while participating in the intervention
- feeling assured that their privacy and confidential information would be protected.

Reasons for "unacceptability" were more diverse. These included:

- conservative views about the intervention or its content (such as contraception)
- intervention costs
- difficult or inequitable access
- fear of pain and side-effects (for biomedical interventions, including vaccines)
- stigma (for example around HIV testing)
- distrust (of vaccines, for example)
- lack of knowledge or support.

Key aspects and delivery

Our findings suggest that intervention developers and implementers should pay attention to key aspects of interventions and their delivery that adolescents clearly care a lot about. This must start from the intervention development phase.

They should ensure that adolescents are provided with adequate knowledge, training and resources to properly understand the intervention and feel confident in their ability to use it.

They need to make sure that adolescents have access to sufficient logistical and emotional support while participating.

And, importantly, these young people's confidential information must be protected. This will protect participants from much-feared stigma and other potential negative social consequences.

Moreover, intervention developers should bear in mind that adolescents value autonomy, and that this has a gender dimension. Autonomy does not only mean being able to choose to participate in or use an intervention. It also means being empowered by the knowledge it may provide and the greater control it may afford young people – particularly young women – in managing high-risk situations and unequal relationships.

Given current public health challenges, such as the COVID-19 pandemic, it may also be worth paying particular attention to specific types of interventions. For example, digital technology is becoming increasingly important to achieve developmental goals in the context of

COVID-19. Young people remain the most connected population group to digital platforms. But more than 60% of young adults in Africa do not have access to the internet.

The findings of our review work show overall high acceptability of e-health interventions. Adolescents highlighted benefits presented by digital technology. These include lower costs compared with in-person interaction.

But there were also concerns. These ranged from connectivity issues, lack of access to mobile phones and other devices, and unintended disclosure of HIV status or other confidential information. These concerns represent challenges for the equitable access, acceptability and effectiveness of e-health programmes. It is therefore important for intervention providers to assess these challenges early on, and to explore ways of increasing access to necessary technologies within the intervention itself, or by supporting concurrent initiatives.

Way forward

Our findings highlight the importance of strengthening adolescents' knowledge of interventions and how to interact with them, but also of understanding and engaging with the broader context within which adolescent acceptability is shaped.

One way to achieve this is to involve adolescents and youth early in the design, planning and scale-up of interventions and – if possible – at various stages of the intervention lifecycle.

It would also be important to engage early on with whoever is central to an intervention being relevant, well-implemented and accepted by adolescents and the broader community. This may include caregivers, partners and peers, teachers and community leaders, who may play an important role in adolescents' lives.

Lastly, opportunities exist for more acceptability research in important areas for adolescent development beyond health. These include educational outcomes, employment opportunities, access to water and other services, gender equality, protection from violence, social protection and mental health.

Source: The Conversation, 20 January 2022. <https://theconversation.com/what-makes-young-people-accept-help-to-stay-well-a-review-of-interventions-in-africa-174981>.

Exercise caution when engaging on social media

Phumzile Gwala, *employee relations advisor, SAMA Employee Relations Department*

Social media sites such as Twitter, Facebook, YouTube, Blogger, LinkedIn and many others have become increasingly popular, not only for social purposes but also as tools to assist in job hunting and business networking. Unfortunately, not everyone is aware that, as useful as these social media sites may be, there also lurk hidden dangers for the online socialite.

Sharing information via social media is potentially risky, even if the consequences are unintended

There is also a growing trend among companies of making use of these sites for background checks and screening of potential and existing employees. Another growing trend is that of employers trying to keep tabs on their employees' social media interactions, which will in time grow the reference base for the use of social media, and help to clarify what can and cannot be used against an employee.

In a recent SA decision, the judge relied on information posted on an ex-employee's LinkedIn online account as evidence that this employee did indeed foster a relationship with his previous employer's clients. It has also become growing practice to utilise information on social media sites, including status updates or Twitter feeds, as evidence in support of legal cases. It is therefore more and more apparent that managing your online presence and filtering what you post on social media sites is crucial, and that a casual approach to online "socialising" could have serious consequences for an employee.

As health professionals, you need to be aware that there is potential risk involved in the sharing of information via social media, even if the consequences are unintended. The following guidelines could come in handy in identifying posts that could pose a danger to you as an employee. They are not meant to discourage social engagement, but rather highlight the need to be cautious and sensitive

to acceptable social media usage. With information available at the click of a button, special care needs to be taken to avoid misuse.

Guidelines to assist in identifying online posts that could pose a danger to you:

- Negative, insulting, inaccurate or inappropriate statements pertaining to your boss, your colleagues, your employer or your patients may very well get you fired.
- Posting or being tagged in inappropriate pictures, or posting remarks that conflict with the company's vision, mission and values, may have a negative influence on your employer's image, and are best avoided.
- Posting status updates or photos while on sick leave, or posting pictures of yourself attending non-work related social events during working hours, may give your employer grounds for accusing you of misconduct.
- Posting confidential or sensitive information that relates to your job, your employer or clients could jeopardise the employer and its clients, and should be avoided at all times.

Tips for employees to keep in mind when managing social profiles:

- Know your employer's social media policy as well as the HPCSA ethical guidelines on social media. These are in place and they generally govern employees' usage of social media platforms. Make sure that you understand the content of the policy and guidelines, and ensure that your profiles and postings comply with these important prescripts.
- Check your privacy settings. Most social media sites have ways to control who can view your profile and whose access is restricted. Take care in considering to whom you grant access to your profile and your content.
- Monitor your profiles regularly, checking for photos or posts that are not in line with your employer's policies. This way tags or unwanted posts of any nature can be removed before causing problems for you in your workplace.
- Don't complain about your employer on a public space of any kind, from WhatsApp to Twitter to Facebook.
- Always carefully consider what you plan to say on a public forum.



Case law

In *Sedick and Another v Krisray (Pty) Ltd* (2011) 8 BALR 879 (CCMA) and *Fredericks v Jo Barkett Fashions* (2011) JOL 27923 (CCMA), the Commission for Conciliation, Mediation and Arbitration (CCMA) decided that the employees in these two matters were dismissed fairly as a result of derogatory Facebook status updates. The employees had not restricted their Facebook privacy settings and the updates could be viewed by anyone, even those with whom they were not "friends" on the website. The CCMA took the view that the employers were entitled to intercept the posts in terms of the Regulation of Interception of Communications and Provision of Communication-Related Information Act No. 70 of 2002 (RICA). The commission decided that the employer was entitled to access the wall posts without infringing the employees' rights to privacy as they had "open" Facebook profiles.

- Never assume that Whatsapp is a safe space, especially if you are on a group platform, because someone could report you and your words can be used against you in a court of law.

One step closer to protecting yourself from HIV with a vaginal ring

Roxy de Villiers

In 2019, Roxy de Villiers from the Bhekisisa Centre for Health Journalism reported that a vaginal ring inserted monthly could reduce women's risk of contracting HIV by 63%, according to a new study. But SAHPRA still had to approve its use. On 11 March 2022, SAHPRA approved the dapivirine vaginal ring, the first long-acting HIV prevention method for women. Read her article below.

The ring is loaded with the antiretroviral (ARV) drug dapivirine, which is slowly released into wearers' blood to help prevent HIV infection. The flexible silicon band – developed by the non-profit organisation the [International Partnership for Microbicides \(IPM\)](#) – is the first long-acting form of treatment that HIV-negative women can take before being exposed to HIV to reduce their chances of contracting the virus. The treatment, which is also known as [pre-exposure prophylaxis \(PrEP\)](#), can be easily replaced at home each month.

What the numbers say

In 2016, research conducted among almost 2 000 women in Uganda and SA [found that when women inserted the ring and kept it in for the full month, the device reduced their risk of infection by 31%](#). The results of the study were published in *The New England Journal of Medicine*. A similar study – also published in the journal and conducted in four countries in southern and East Africa – had [roughly the same findings](#).

But both trials found differences in how well the ring worked for women based on age – mostly because [women younger than 21 were less likely to use the ring consistently, researchers hypothesised, and they were likely having more sex than older women](#).

After the initial study concluded in Uganda and SA, scientists continued to follow ring-using women who had remained HIV-negative during the trial for at least 1 year. They found [not only that 95% – 12% more than in the previous study – of women used the ring at least some if not all of the time, but also that the silicon band was more effective at protecting them from HIV than previously thought](#). The research

was presented at the SA Aids Conference in May. When researchers compared the women's results with computer simulations of their HIV risk without the loops, they found that the ARV-containing ring reduced new infections among the group by almost two-thirds.

From clinical trial to pharmacy shelf?

IPM's chief medical officer Annalene Nel says the organisation plans to submit the ring for approval to the [SA Health Products Regulatory Authority \(SAHPRA\)](#) and its US counterpart, the Food and Drug Administration, later this year.

The band is already being reviewed by the European Union (EU)'s drug authority, the European Medicines Agency. If the agency greenlights the ring's public use in the EU, IPM will submit it for WHO pre-qualification. This kind of WHO approval often allows devices to be used in low- and middle-income countries that don't have national regulators with the capacity to quickly approve new medicines or products.

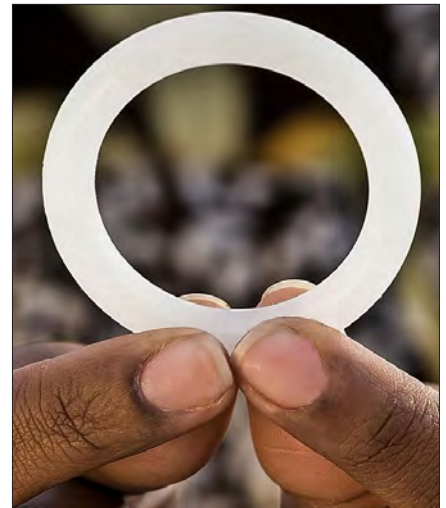
The IPM expects the ring to be WHO pre-qualified by mid-2020, and that approvals from several national regulators in Africa will follow by 2021, senior director of IPM external affairs Africa, Leonard Solai, says.

The IPM is also in the [early phases of developing two other dapivirine-containing rings](#) that could be left in for 3 months at a time, or could combine the HIV protection of an ARV with a long-acting contraceptive. A two-in-one ring could cut costs for women, for instance, on the money spent on transport to collect birth control from clinics that are at times few and far between.

What does this form of PrEP mean for women in SA?

[Three times as many young women between the ages of 20 and 24 are HIV-positive compared with men their age](#), preliminary results of the Human Sciences Research Council's latest household HIV survey show.

The health department wants to slash the number of new infections by [rolling out PrEP](#)



This silicone ring loaded with the antiretroviral drug dapivirine could mean long-lasting protection against HIV for people with vaginas (International Partnership for Microbicides)

[to young women in the form of a once-daily HIV prevention pill](#) as part of the country's latest HIV plan.

But studies have shown that young women's adherence to the pill is considerably lower than that of, for instance, men who have sex with men, because young women often don't perceive themselves to be at risk of HIV.

Because the dapivirine ring only needs to be replaced once every month and maybe, in the near future, once every 3 months, it could increase women's adherence to PrEP – and consequently, how well it works for them.

When can we expect a rollout of the 1-month dapivirine ring in the country?

Nel says there's still a long way to go before the ring will be available for public use – the IPM would first have to get SAHPRA approval.

She concludes: "We'll probably have to go into a fourth round of trials."

Source: Bhekisisa, 19 July 2019. <https://bhekisisa.org/article/2019-07-19-prevent-hiv-prep-vaginal-ring-dream-study-findings>.

How drug companies are sidestepping the WHO's technology transfer hub in Africa

David Richard Walwyn, *professor of technology management, University of Pretoria*

Pharmaceutical company Moderna announced on 7 March 2022 that it would develop a site in Kenya to manufacture COVID-19 vaccines. The company holds much of the key intellectual property relating to the messenger RNA (mRNA) vaccines. Due to their higher efficacy, mRNA vaccines are the preferred option in developed countries. They account for 92% of all vaccinations to date in the USA and European Union.

Moderna's decision to continue making the vaccine itself, though on the Kenyan site, is a signal that the company (at least for the moment) is not considering licensing its technology to a third party for local manufacture. In this way, the company keeps closer control over who has full knowledge of, and is able to productively use, its technology. Licensing is an arrangement that has lower cost but greater vulnerabilities for licensors.

The decision is significant for the mRNA Technology Transfer Hub in Cape Town, SA. The hub was established in June 2021 by the WHO and other parties. The idea was to develop a mRNA vaccine manufacturing technology platform. This would initially be for COVID-19, but eventually for a range of infectious diseases including TB and HIV.

Once the platform has been fully developed and tested in Cape Town, it will facilitate technology transfer to at least 12 low- and middle-income countries. This will considerably expand global mRNA manufacturing capacity.

Africa's first mRNA vaccine

The hub has already made significant progress toward producing a vaccine candidate based on the research published by Stanford University, which forms the backbone for the Moderna COVID-19 mRNA vaccine.

Much of the development work is happening in the SA company Afrigen Biologics and at the University of the Witwatersrand in Johannesburg. The achievement has been reached through innovation using the team's own knowledge and competence, combined with knowledge that is in the public domain.

Afrigen's managing director, Prof. Petro Terblanche, recently outlined the status of the work on the Afrigen mRNA hub vaccine. The company has developed a lab-scale batch of the vaccine, and expects to complete initial manufacture of large-scale trial batches, to be tested in clinical trials, by November 2022.

There are still many hurdles to cross before its work will be complete. The direct participation of either of the pharmaceutical giants Moderna or BioNTech in the initiative would have been beneficial to its programmes, particularly to guide the hub in the technical details of formulation and process conditions.

BioNTech, which has even been accused of undermining the activities of the hub, announced earlier in 2022 plans to build vaccine manufacturing sites in Rwanda and Senegal. Then Moderna stated its intention to invest in Kenya, noting that the investment will "fill the gap" in terms of manufacturing capacity.

The Cape Town hub is supported by a range of partners who bring expertise, experience and resources, all of which are essential for a successful technology transfer. The idea of reproducing these key inputs at other sites seems counter-intuitive.

Patents and profits in pharmaceuticals

The decisions of the drug manufacturers are reminiscent of the struggle over patents for HIV drugs that took place in SA during the early 2000s. At the time, HIV drugs were unaffordable in the country, priced at USD10 000 per person per year for an effective treatment. Pharmaceutical companies pursued an aggressive strategy to protect their intellectual property and their prices, even at the cost of many thousands of lives in developing countries, including SA. Compelled by a court case, the companies eventually backed down and licensed generic companies to make and market their antiretroviral products at a fraction of the cost.

Moderna holds a patent in SA that may be troublesome for the hub in the medium term. The patent includes a claim covering the local manufacture of any vaccine that contains mRNA. This claim

could be used to prevent any scale-up of the platform technology being developed by Afrigen. Already, a number of public-interest organisations are calling for Moderna to abandon its patent claims or grant a royalty-free licence to Afrigen.

The actions of the patent holders can be understood on the basis that they wish, at all costs, to avoid the prospect of compulsory licensing. Compulsory licensing is permitted under the international agreements on trade and intellectual property when countries consider it necessary to access patented drugs for a public health emergency such as a pandemic. Now that the hub has demonstrated it can reproduce the technology, it's likely that a compulsory licence would be granted, should an application to the World Trade Organization be made.

The companies also appear to be eroding the business case for the hub by establishing competing facilities. Biovac and Afrigen, key partners in the hub's plans, may struggle to raise finance or sell product into those markets where Moderna and BioNTech are now establishing a presence. Market volumes are essential for the viability of vaccine manufacture, and every new site diminishes the prospects for a competitor to build its own business.

Public health

Vaccines are mostly public health products. They protect whole populations with minimum expenditure. It is acceptable that companies that develop and make these products should do so at reasonable margin. This is typically in the region of 14% net earnings as a percentage of revenues. But leading mRNA companies are now reporting extreme profits.

Public health should not be held ransom by private gain, nor should it be bankrupted by necessary life-saving interventions. The actions of BioNTech and Moderna will prolong the social and economic costs of the pandemic.

Source: The Conversation, 13 March 2022. <https://theconversation.com/how-drug-companies-are-sidestepping-the-whos-technology-transfer-hub-in-africa-179029>.

Failure to diagnose pre-eclampsia

The Medical Protection Society shares a case report from their files

Ms B was 28 weeks pregnant with her first child. She became acutely unwell and visited her GP. Dr M saw the patient, who gave a short history of nausea and headache. She also complained of swollen ankles and puffiness of her fingers and face. Dr M did not have access to the patient's complete records at the time, and did not subsequently make a note of the consultation. However, Ms B showed him her antenatal record card, which documented a weight gain of 25 kg. Dr M took Ms B's blood pressure but performed no other examination. Dr M prescribed Gaviscon and a diuretic, and advised Ms B to rest.

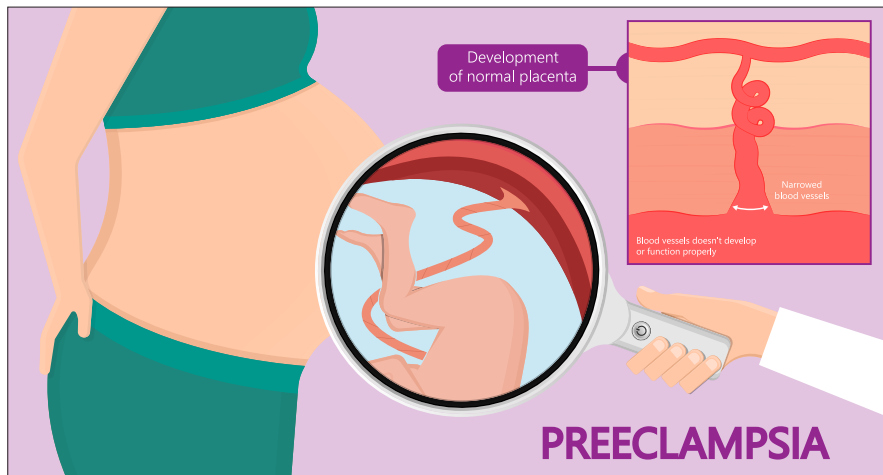
A few hours later, Ms B developed epigastric pain and loss of vision followed 20 minutes later by a grand mal seizure. An ambulance was called. During the transfer Ms B suffered two further grand mal seizures, which were treated with intravenous diazepam. On arrival at hospital the eclampsia protocol was initiated, and Ms B underwent an emergency caesarean section. The baby was resuscitated and transferred to the special care baby unit, where she was subsequently noted to have spastic quadriplegic cerebral palsy with dystonia.

Ms B subsequently brought a claim against Dr M for failing to diagnose pre-eclampsia.

Expert opinion

According to our GP expert, a history of nausea, headache and oedema coupled with the likelihood that Ms B had a mildly elevated blood pressure should have suggested the possibility of pre-eclampsia, and urinalysis to exclude proteinuria was mandatory. In failing to perform this test, or alternatively to arrange it by referral to a specialist or hospital, Dr M breached his duty of care to Ms B.

The obstetric expert advised that prodromal symptoms such as headache and nausea are more prominent in ante-partum eclampsia than signs, and blood pressure is often not dramatically increased, hence it is possible that the patient would not have had significant hypertension and/or proteinuria when seen by Dr M. However, the absence of any clinical record of the consultation made



Learning points

- It is difficult to defend a case without adequate records, and it is important that doctors document any consultations in the patient's notes at the earliest opportunity. This is essential for good communication with others caring for the patient, and can prove invaluable should a complaint or claim arise.
- A failure to carry out or record simple bedside tests (e.g. urine dipstick) and temperature can also make a case difficult to defend, especially where they could help to make a serious diagnosis.
- Prodromal symptoms may be more prominent than signs in the immediate pre-eclamptic state. Blood pressure readings, in particular, may not be dramatically raised.
- Delivery before the onset of eclampsia can have a marked beneficial effect on outcome and substantially reduce the risk of cerebral injury.

it difficult to rebut the claimant's allegation that she should have been admitted to hospital.

Had Ms B been admitted to hospital at the time and proteinuria detected, it is likely that she would have been observed, and antihypertensive treatment may have been initiated if the diastolic blood pressure was deemed high. By the time she complained of epigastric pain, the window of opportunity to alter the outcome had been missed.

Expert opinion from a paediatric neurologist concluded that the marked neurological injury sustained by the baby most likely resulted from an acute severe hypoxic ischaemic insult to the thalamus at or around the time of the seizures and a more chronic hypoxic ischaemic insult prior to delivery, rather than as a consequence of

Document any consultations in the patient's notes at the earliest opportunity

premature delivery at 29 weeks' gestation. It is likely on the balance of probabilities that had the baby been delivered prior to the onset of maternal seizures, she would have sustained mild neurological injury, at most.

Given the absence of GP records for the crucial consultation, it was difficult to rebut the allegations. The claim was therefore settled for a moderate sum.

Fix and open Charlotte Maxeke Academic Hospital

A second picket was held outside the Charlotte Maxeke hospital on 4 March 2022, hosted by Defend Our Democracy. SAMA Gauteng branch was asked to talk on behalf of the doctors.

The picket was yet again calling for answers as to why Charlotte Maxeke Johannesburg Academic Hospital is not fully open. The fire that ravaged blocks 3 and 4 of the hospital occurred in April 2021.

The picket was the second hosted by the Defend Our Democracy campaign – the first took place on 20 February 2022. The picket, titled “Fix and open Charlotte Maxeke Hospital now” is, according to the group, a call to action to put pressure on the Gauteng provincial government to urgently prioritise repairs of the hospital.

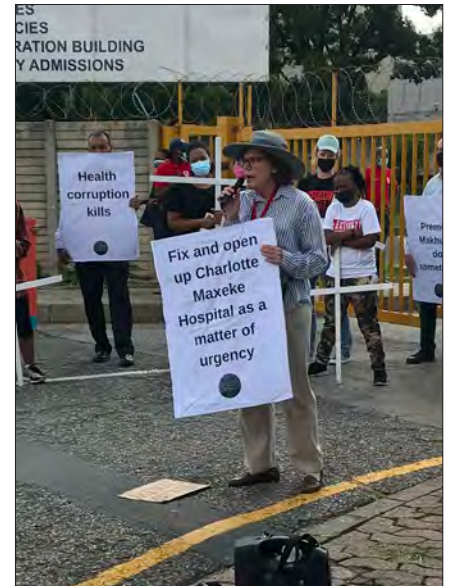
Director-general at Gauteng Office of the Premier Thabo Masebe arrived during the final minutes of the gathering, and responded to a number of questions.

Activists from the Open CMJAH Now campaign (which includes the Democratic Nursing Organisation of SA, SAMA, the Treatment Action Campaign, the Progressive Health Forum, Section27 and the Cancer Alliance) questioned Masebe’s promises and decried the way the ANC in Gauteng has destroyed the health system.

Prof. Daynia Ballot from Wits University said that the closure of the Charlotte Maxeke hospital is adversely affecting teaching of medical students, our future doctors.



Dr Mark Human, chairperson SAMA Gauteng branch



Prof. D Ballot represented Wits University Medical School



Protesters gather outside Charlotte Maxeke Hospital

KZN Midlands visits Estcourt doctors

Mandy Hattingh, branch administrator at KZN Midlands branch, recently visited all the doctors in Estcourt, both SAMA and non-SAMA members.

Dr Geocharan Chotu, a loyal SAMA member who attends all the functions, thanked Mandy: “A big thank you for visiting myself and the other doctors in the town of Estcourt. It was a welcome surprise and

much appreciated during a very difficult time for doctors and their patients during the pandemic. Fortunately we receive tremendous support from SAMA, which assists us in managing a very difficult illness with the current and international guidelines. I trust and hope that SAMA will continue to provide ongoing support.”

Congratulations to Mandy and the KZN Midlands branch.



Dr Geocharan Chotu with Mandy Hattingh



Welcome to SAMA

SAMA welcomes the following new members who joined our association in March 2022.

Border Coastal branch

Zwelakhe Wilson Gqojana

Cape Western branch

Nadia Kritzing
Mpho Christina Nemaguvhuni
Zaakira Syed

Eastern Highveld branch

Anoop Hashmukh Narotam

Free State branch

Sinenhlanhla Mbongo
Lize Raubenheimer
Elizabeth Phangweni Chauke

Gauteng branch

Molefe Stephen Nchabeleng
Edward Kgabo Sepirwa
Radiyyah Hassim
Kajal Jagjivan
Thokozani Kubheka
Nataneal Janse van Rensburg
Shenise Singh
Georgina Michele Miller

Gauteng North branch

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Sihalaliso Sinothando Motha
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Qiniso Lindokuhle Vukani Miya

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Azhar Osman

Tygerberg Boland branch

Shrivedh Singh

West Rand branch

Noeleen van Staden

Letters to the Editor

The *Letters to the Editor* page aims to give members the opportunity to comment on, query, complain or compliment on any matter, topic, incident, event or issue in their particular field or with regard to general healthcare, which you feel should be shared with your colleagues and fellow readers.

Please note that letters:

- should be no longer than 500 words
- can be published anonymously, but writer details must be submitted to the editor in confidence
- must be on subjects pertinent to healthcare delivery
- should be submitted before the 6th of the month in order to be published in the next issue of *SAMA Insider*.

Please email contributions to: Diane de Kock, dianed@samedical.org.



AFRICAN WORLD HERITAGE DAY

On 5 May, **African World Heritage Day** is celebrated. We would like to honour our South African doctors that performed first ever surgeries like **Professor Christiaan Barnard** who performed the first ever heart transplant at **Groote Schuur Hospital** in Cape Town.

LocumBase gives a big shoutout to all the **South African doctors** who have chosen to save lives. We commend you for your hard work.

Sign up today and join the LocumBase community to spread your invincible skills nationwide!



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please contact the
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012 481 2000 

cpd@samedical.org 

WHAT ARE WE ABOUT

Assisting health professionals to maintain and acquire new and updated levels of knowledge, skills and ethical attitudes that will be of measurable benefit in professional practice and to enhance and promote professional integrity. The SA Medical Association is one of the institutions that have been appointed by the Medical and Dental Professions Board of the Health Professions Council of SA to review and approve CPD applications.

SERVICES AVAILABLE

- South African Medical Association Continued Professional Development Accreditation
- **Our Mission**
 - Empowering Doctors to bring health to the nation
 - Excellent Service
 - Quick Turnaround
 - Efficiency