

DIAGNOSTICS



THE PUSH FOR A COVID-19 VACCINE

- Pg 05

COVID-19 PCR TESTING

NOW AVAILABLE IN GABORONE
DIAGNOFIRM MEDICAL LABORATORIES

AVAILABLE AT

Walk-In Testing

Available at Covid Testing
Area at Diagnofirm Main Branch
Plot 12583, Nyerere Drive,
Middlestar, Gaborone

- Gaborone
- Maun
- Phikwe
- Francistown
- Kazangula
- Palapye



DIAGNOFIRM
MEDICAL LABORATORIES
PATHOLOGY YOU CAN TRUST

For more details, contact us on:
373 2958 / 77 583 859

A PUSH FOR DIAGNOSTIC EXCELLENCE!

DIAGNOFIRM ATTAINS ISO ACCREDITATION FOR COVID-19
THE ONLY LABORATORY IN BOTSWANA TO DO SO

TABLE OF CONTENTS

COVER IMAGE:



THE PUSH FOR A COVID-19 VACCINE

WHAT TO KNOW ABOUT WISDOM TEETH?

Wisdom teeth/3rd molars are the last four molars in humans and are normally the last ones to appear in the mouth

04

THE PUSH FOR A COVID-19 VACCINE

03

FROM FOOD HABITS TO PRECAUTIONS:

Dealing with diabetes in the pandemic

06

GLOBAL WIRELESS HEALTH AND FITNESS DEVICES INDUSTRY

Wireless Health & Fitness Devices Market Escapes the Ravages of the Virus Induced Economic Recession.

10

Diagnostics Update.com

Private Bag 283, Gaborone
Tel: 395-0007, Fax: 395-7980
www.diagnostics-update.com
Email: ddiagnostics@yahoo.com

Advertising Sales & Copyrighting Editor

Mothusi Jowawa

Editor:

Mothusi Jowawa
72482503 / 73584988 / 72199228

Dear Reader

One of the great aspects of this job is having the opportunity to talk with and listen to the many different manufacturers, distributors, and of course the huge network of dealers that is the backbone of our industry.

Years ago I never would have ever imagined I would be in this position, and it is amazing. To say I really enjoy this job is an understatement.

What makes Diagnostics Update.com so unique is their informative and educative ways to the nation.

The staff and management is always looking for ways to inform their readers on how to tackle different medical issues. Basically, you want more people to enjoy reading more and more.

That said, there is still the need to get more readers to embrace healthy routines within and outside the homestead.

Copyright © 2017 by the Diagnostics Update.com, except as noted.

Some materials were condensed from various sources, specifically online sources, where copyright stays with the original owner.

Diagnostics Update.com and all the entities associated with them accept no liability, under any circumstance,

for anything whatsoever arising out of the information presented in this publication. All opinions expressed are those of the authors and not of Diagnostics Update.com.

All materials in Diagnostics Update.com are for informational purposes only and are not a substitute for professional medical or health

advice, examination, diagnosis, or treatment. Always seek the advice of your physician or other qualified health professional before starting any new treatment, making any changes to existing treatment, or altering in any way your current exercise or diet regimen. The information here should not be used

to diagnose, treat, cure, or prevent any disease without the supervision of a medical doctor. Please be advised that medical information changes rapidly and new discoveries are being made on a daily basis. Therefore, some information in this publication may have change by the time you read it.

The only laboratory in Botswana accredited with SADCAS ISO 15189:2012 for SARS-CoV-2(Covid-19)



Operating Hours

Mon - Fri: 0700 - 1800hrs
Sat: 0800 - 1500hrs
Sun: 0800 - 1300hrs

**COVID-19 PCR TESTING
NOW AVAILABLE AT DIAGNOFIRM**



MED 012



DIAGNOFIRM
MEDICAL LABORATORIES
PATHOLOGY YOU CAN TRUST

SADCAS ACCREDITS FIRST MEDICAL LABORATORY FOR COVID 19 DIAGNOSTIC TESTING

SADCAS is proud to announce the accreditation of its very first medical laboratory for conducting Coronavirus disease 2019 (COVID-19) diagnostic testing.

Diagnofirm Medical Laboratories Gaborone situated at Plot Number 12583, Nyerere Drive, Middlestar, Gaborone, Botswana has been accredited to ISO 15189:2012 for SARS-CoV-2/COVID-19 testing using the PCR/Bioer Extraction and Amplification System. The accreditation is a scope extension in the "Molecular Biology" scope. Diagnofirm was first accredited by SADCAS on 25 June 2015 to ISO 15189: 2012 and granted the accreditation number MED 012 for the following scopes: Chemistry; Endocrinology; Haematology; Microbiology; Molecular Biology; and Serology.

Diagnofirm Medical Laboratories Gaborone was re-assessed and renewal of accreditation was granted on 31 July 2020.

For COVID-19 Testing, Diagnofirm Medical Laboratories Gaborone underwent a scope extension assessment on 8 December 2020 by a team of two including Technical Assessor competent in the scope molecular biology. The assessment which was conducted virtually involved a vertical assessment and witnessing the scientist undertaking the test. No findings were raised during the assessment after which a decision to accredit in the test method "SARS-CoV-2/COVID-19" using the PCR Bioer Extraction and Amplification System was made by the SADCAS Accreditation Approvals Committee on 11 December 2020 based on the assessment team's recommendation.

The COVID-19 pandemic caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), is now a major public health problem globally. Medical laboratories play a critical role in the healthcare delivery system by providing information for patient management, public health, disease control and surveillance. Reliable results of medical laboratories conducting tests to detect the SARS-CoV-2 virus are essential in the management of the pandemic. Accurate and early detection of SARS-CoV-2 in infected people are key in limiting transmission of COVID-19 and informing interventional measures.

Accreditation to ISO 15189:2012 is a vital tool for laboratories to improve quality performance, efficiency and reliability. The SADCAS. *Source: www.sadcas.org*

WHAT TO KNOW ABOUT WISDOM TEETH?

WISDOM TEETH/3RD MOLARS ARE THE LAST FOUR MOLARS IN HUMANS AND ARE NORMALLY THE LAST ONES TO APPEAR IN THE MOUTH



Their primary function is to help us chew but a lot of dentist would render them useless due to the fact that there are 28 more teeth in the mouth. Wisdom teeth normally appear in the mouth from late teens to early twenties. More often than not wisdom teeth invite more problems than good.

ARE YOUR WISDOM TEETH COMING OUT? WHAT TO EXPECT

Pain behind the molar area
Redness of the gums
Tenderness
Swelling

Wisdom teeth can also fail to erupt and get trapped inside the bone, gum or other adjacent teeth. This is called impaction. An impacted wisdom tooth will be trapped there until some intervention is employed. Wisdom teeth cause problems to both oral health and general health.

LOCAL CAUSES OF IMPACTED TEETH

- Obstruction for eruption
- Lack of space in the dental arch
- Ankylosis of primary or permanent teeth

- Non -absorbing, over retained deciduous teeth
- Non absorbing alveolar bone
- Dilacerations of roots
- Associated soft tissue or bony lesions

SYSTEMIC CAUSES OF IMPACTED TEETH

- Pre-natal causes-Hereditary
- Post natal-anemia, TB, congenital syphilis, malnutrition
- Endocrinal disorders of the thyroid, parathyroid
- Hereditary linked disorders e.g down's syndrome, osteopetrosis, cleidocranial dystosis, cleft palate

SYMPTOMS OF IMPACTED WISDOM TEETH

- Pain at the back of the mouth
- Infection
- Foul breath
- Bad taste chewing food
- Redness
- Swelling

If left untreated, impacted wisdom teeth will result in increased pain, more swelling, jaw pain, inability to open

mouth and or develop cysts.

WHAT TO DO

The best treatment for an impacted wisdom tooth is to remove it. The treatment is performed by a dentist or oral surgeon. The operation can be done under local anesthesia or general anesthesia depending on the severity of the impaction and the general condition of the patient. A dentist will discuss the procedure and complications prior to the operation.

INDICATION FOR REMOVAL OF IMPACTED TEETH

- Pain of un/explained origin
- Prevention of periodontal disease
- Prevention of dental caries
- Prevention of pericoronitis
- Prevention of root resorption
- Management of pre-prosthesis concerns
- Facilitation of orthodontic treatment
- Prevention of fractures of the jaw
- Prevention of cysts and tumors
- Preparation of orthognathic surgery
- Prophylactic removal

CONTRAINDICATIONS FOR REMOVAL OF IMPACTED TEETH

- Advanced age
- Compromised medical status
- Probable excessive damage to the adjacent structures

Wisdom tooth removal is a common practice and offers the best solution for one to relieve symptoms associated with leaving them on.

Dr M.Thangwane
BDS,MBA

Dental Surgeon at One dental clinic

THE PUSH FOR A COVID-19 VACCINE



The world is in the midst of a COVID-19 pandemic. As WHO and partners work together on the response -- tracking the pandemic, advising on critical interventions, distributing vital medical supplies to those in need--- they are racing to find a vaccine.

Vaccines save millions of lives each year. Vaccines work by training and preparing the body's natural defences --- the immune system--- to recognize and fight off the viruses and bacteria they target. If the body is exposed to those disease-causing germs later, the body is immediately ready to destroy them, preventing illness.

Immunization currently prevents 2-3 million deaths every year from diseases like diphtheria, tetanus, pertussis, influenza and measles. There are now vaccines to prevent more than 20 life-threatening diseases, and work is ongoing at unprecedented speed to also make COVID-19 a vaccine-preventable disease.

There are currently more than 100 COVID-19 vaccine candidates under development, with a number of these in the human trial phase. WHO is working in collaboration with scientists, business, and global health organizations through the ACT Accelerator to speed up the pandemic response. When a safe and effective vaccine is found, COVAX (led by WHO, GAVI and CEPI) will facilitate the equitable access and distribution of these vaccines to protect people in all countries. People most at risk will be prioritized.

R&D Blueprint and COVID-19

The current COVID-19 pandemic is unprecedented, but the global response draws on the lessons learned from other disease outbreaks over the past several decades.

As part of WHO's response, the R&D Blueprint was activated to accelerate diagnostics, vaccines and therapeutics for this novel coronavirus. The Blueprint aims to improve coordination between scientists and global health professionals, accelerate the research and development process, and develop new norms and standards to learn from and improve upon the global response.

On 30 January 2020, following the recommendations of the Emergency Committee, the WHO Director-General declared that the outbreak constitutes a Public Health Emergency of International Concern (PHEIC).

World scientists on COVID-19 then met at the World Health Organization's Geneva headquarters on 11-12 February 2020 to assess the current level of knowledge about the new virus, agree on critical research questions that need to be answered urgently, and to find ways to work together to accelerate and fund priority research to curtail this outbreak and prepare for those in the future.

The discussion led to an agreement on two main goals. The first was to accelerate innovative research to help contain the spread of the epidemic and facilitate care for those affected. The second was to support research priorities that contribute to global research platforms in hopes of learning from the current pandemic response to better prepare for the next unforeseen epidemic. Building on the response to recent outbreaks of Ebola virus disease, SARS-CoV and MERS-CoV, the R&D Blueprint has facilitated a coordinated and accelerated response to COVID-19, including an unprecedented program to develop a vaccine, research into potential pharmaceutical treatments and strengthened channels for information sharing between countries.

Draft landscape of COVID-19 candidate vaccines

Overview

These landscape documents have been prepared by the World Health Organization (WHO) for information purposes only concerning the 2019-2020 global of the novel coronavirus. Inclusion of any particular product or entity in any of these landscape documents does not constitute, and shall not be deemed or construed as, any approval or endorsement by WHO of such product or entity (or any of its businesses or activities). While WHO takes reasonable steps to verify the accuracy of the information presented in these landscape documents, WHO does not make any (and hereby disclaims all) representations and warranties regarding the accuracy, completeness, fitness for a particular purpose (including any of the aforementioned purposes), quality, safety, efficacy, merchantability and/or non-infringement of any information provided in these landscape documents and/or of any of the products referenced therein. WHO also disclaims any and all liability or responsibility whatsoever for any death, disability, injury, suffering, loss, damage or other prejudice of any kind that may arise from or in connection with the procurement, distribution or use of any product included in any of these landscape documents.

Is there a vaccine for COVID-19?

Not yet. Many potential vaccines for COVID-19 are being studied, and several large clinical trials may report results later this year. If a vaccine is proven safe and effective, it must be approved by national regulators, manufactured to exacting standards, and distributed. WHO is working with partners around the world to help coordinate key steps in this process. Once a safe and effective vaccine is available, WHO will work to facilitate equitable access for the billions of people who will need it.

When will COVID-19 vaccines be ready for distribution?

We don't yet know exactly when a safe and effective COVID-19 vaccine will be ready for distribution, but we estimate that it could be in early to mid-2021. Before COVID-19 vaccines can be delivered, several important challenges must be overcome:

The vaccines must be proven safe and effective in large (phase III) clinical trials. Many potential vaccines for COVID-19 are being studied, and some of the large clinical trials may report results in late 2020 or early 2021.

A series of independent reviews of the efficacy and safety evidence is required, including regulatory review and approval in the country where the vaccine is manufactured, before WHO considers a vaccine product for prequalification. Part of this process also involves the Global Advisory Committee on Vaccine Safety.

An external panel of experts convened by WHO, called SAGE, will analyze the results from clinical trials and along with evidence on the disease, age groups affected, risk factors for disease, and other information, they will recommend whether and how the vaccines should be used. Officials in individual countries will decide whether to approve the vaccines for national use and develop policies for how to use the vaccines in their country based on the WHO recommendations.

The vaccines must be manufactured in large quantities, which will be a major and unprecedented challenge -- all the while continuing to produce all the other important life-saving vaccines already in use.

As a final step, vaccines will be distributed through a complex logistical process, with rigorous stock management and temperature control.

WHO is working with partners around the world to accelerate every step of this process, while also ensuring the

TO PAGE 07

From food habits to precautions: DEALING WITH DIABETES IN THE PANDEMIC

The most common myth about diabetes is that it is caused in people who tend to include a lot of sweets in their diet

Even though diabetes is a common health problem, there are many myths and misconceptions associated with the condition. Diabetes is a long-term (chronic) disease in which the body cannot regulate the amount of glucose (sugar) in the blood. The misrepresentations of diabetes can sometimes be harmful and lead to an unfair stigma, too.

Starting from food habits to precautions, here is no special diet required for any diabetes patient; rather one should focus on a healthy diet.

Sugar free tablets and its consumption, and how sucralose can help people with diabetes.

“The most common myth about diabetes is that it is caused in people who tend to include a lot of sweets in their diet. It’s not surprising that people get confused about whether sugar causes diabetes. This confusion may come from the fact that when you eat food, it is converted into a sugar called glucose. Glucose, also called blood sugar, is a source of energy for the body. Insulin moves glucose from the blood into the cells so it can be used for energy. With diabetes, the body does not make enough insulin, or the body does not use insulin well. As a result, the extra sugar stays in the blood, so the blood glucose (blood sugar) level increases,” Dr Gongopadhyay explains.

For people who do not have diabetes, the main problem with eating a lot of sugar and drinking sugar-sweetened beverages is that it can make you overweight. And being overweight increases your risk for diabetes.

Additionally, many people think that insulin is a lifelong process; “There is no such requirement; only people who have critical health conditions or are going through any chronic disease, are given insulin.”

Are patients with diabetes at more risk of contracting COVID-19?

Till now, we do not have any evidence that a diabetic is more prone to developing COVID-19. If, however,

a patient with diabetes contracts COVID-19, the complication will be higher than for a patient who does not have diabetes.

What precautions does a patient with diabetes have to take to prevent COVID-19 infection?

Wearing masks properly, social distancing, proper hand washing, avoiding crowds – in short, the usual precautions, perhaps with even more attention to detail. There are no other special precautions. There is no clear evidence that extra vitamins, minerals or Hydroxychloroquine is needed to prevent COVID-19. Healthy diet including vegetables and fruits, and daily exercise naturally improve the body’s defenses against all infections.

Because of social distancing issues morning walks are difficult to manage – what is the alternative?

For patients with diabetes, walking does not have to be in the morning, but can be done any time of the day. One may split the time of walking into

two or three times a day. Walking does not necessarily have to be outside, but can be done on the terrace, veranda or inside the flat. Exercise bikes or treadmills can be used. A fixed routine helps in preventing swings of blood sugar.

Does blood sugar control reduce complications from COVID-19 infection?

Yes. It is important that patients with diabetes pay even more attention to control their blood sugar levels in this pandemic situation.

Does COVID-19 affect blood sugar levels?

We do not know for sure if COVID-19 independently affects the blood sugar levels, but any infection can upset diabetes control. Moreover, hospitalised COVID-19 patients are given steroid medications to help fight Covid, which raises the blood sugar to high levels. Hence, most hospitalised patients with the infection are given multiple doses of insulin and may also be discharged on insulin.

Source: /indianexpress.com



Diabetes: Adding lifestyle changes to medication

THE PUSH FOR A COVID-19 VACCINE



FROM PAGE 05

highest safety standards are met.

How likely is it that safe, effective vaccines for COVID-19 will be developed?

WHO is cautiously optimistic that safe and effective vaccines for COVID-19 will be successfully developed. There is a robust pipeline of potential vaccines in development, and some have already advanced to large (phase III) clinical trials based on promising early data.

But for now, we can't be certain if or when a COVID-19 vaccine will be available. That is why we must not rely on a future vaccine to fight this pandemic – we must use all the tools we already have at our disposal, such as testing, contact tracing, physical distancing, and the use of masks.

How quickly could COVID-19 vaccines stop the pandemic?

The impact of COVID-19 vaccines on the pandemic will depend on several factors. These include factors such as the effectiveness of the vaccines; how quickly they are approved, manufactured, and delivered; and how many people get vaccinated.

Most scientists anticipate that, like most other vaccines, COVID-19 vaccines will not be 100% effective. WHO is working to help ensure that any approved vaccines are as effective as possible, so they can have the greatest impact on the pandemic.

What types of COVID-19 vaccines are being developed? How would they work?

Scientists around the world are developing many potential vaccines for COVID-19. These vaccines are all designed to teach the body's immune system to safely recognize and block the virus that causes COVID-19.

Several different types of potential vaccines

for COVID-19 are in development, including:

Inactivated or weakened virus vaccines, which use a form of the virus that has been inactivated or weakened so it doesn't cause disease, but still generates an immune response.

Protein-based vaccines, which use harmless fragments of proteins or protein shells that mimic the COVID-19 virus to safely generate an immune response.

Viral vector vaccines, which use a virus that has been genetically engineered so that it can't cause disease, but produces coronavirus proteins to safely generate an immune response.

RNA and DNA vaccines, a cutting-edge approach that uses genetically engineered RNA or DNA to generate a protein that itself safely prompts an immune response.

How will we know if COVID-19 vaccines are safe?

There are many strict protections in place to help ensure that COVID-19 vaccines will be safe. Like all vaccines, COVID-19 vaccines should go through a rigorous, multi-stage testing process, including large (phase III) trials that involve tens of thousands of people. These trials, which include people at high risk for COVID-19, are specifically designed to identify any common side effects or other safety concerns.

If a clinical trial shows that a COVID-19 vaccine is safe and effective, a series of independent reviews of the efficacy and safety evidence is required, including regulatory review and approval in the country where the vaccine is manufactured, before WHO considers a vaccine product for prequalification. Part of this process also involves a review of all the safety evidence by the Global Advisory Committee on Vaccine Safety.

An external panel of experts convened by WHO will analyze the results from clinical

trials and along with evidence on the disease, age groups affected, risk factors for disease, and other information, will recommend whether and how the vaccines should be used. Officials in individual countries will decide whether to approve the vaccines for national use and develop policies for how to use the vaccines in their country based on the WHO recommendations. After a COVID-19 vaccine is introduced, WHO will support work with vaccine manufacturers, health officials in each country, and other partners to monitor for any safety concerns on an ongoing basis.

Will other vaccines help protect me from COVID-19?

Currently, there is no evidence that any existing vaccines will protect against COVID-19.

However, scientists are studying whether some existing vaccines – such as the Bacille Calmette-Guérin (BCG) vaccine, which is used to prevent tuberculosis – are also effective for COVID-19. WHO will evaluate evidence from these studies when available.

Will COVID-19 vaccines provide long-term protection?

It's too early to know if COVID-19 vaccines will provide long-term protection. Additional research is needed to answer this question. However, it's encouraging that available data suggest that most people who recover from COVID-19 develop an immune response that provides at least some protection against reinfection – although we're still learning how strong this protection is, and how long it lasts.

It's also not yet clear how many doses of a COVID-19 vaccine will be needed. Most COVID-19 vaccine being tested now are using two dose regimens.

Source: www.who.int/emergencies/diseases.com

COVID-19 INFECTION PREVENTION AND CONTROL IN THE WORKPLACE

PREVENTING WORKPLACE TRANSMISSION

WHO reiterated the minimum risk of infection following compliance with the DOH requirements for prevention of transmission and for isolation following infection.

- It is important that recovered patients

and their close contacts who reintegrate into their communities and workplaces continue to wear masks, maintain physical distancing, clean their hands frequently and avoid the three Cs (crowded, closed and close-contact settings) just like everyone else.

- Employers to ensure workplace safety and health via increased mental and

physical resilience and reduction of physical contact and gatherings of employees, among others.

- Stringent environmental disinfection, while emphasizing to workers the importance of self-monitoring and observance of health protocols especially mask wearing and physical distancing.

TO PAGE 13

PROSTATE CANCER

Prostate cancer is cancer that occurs in the prostate. The prostate is a small walnut-shaped gland in males that produces the seminal fluid that nourishes and transports sperm.

Prostate cancer is one of the most common types of cancer. Many prostate cancers grow slowly and are confined to the prostate gland, where they may not cause serious harm. However, while some types of prostate cancer grow slowly and may need minimal or even no treatment, other types are aggressive and can spread quickly.

Prostate cancer that's detected early — when it's still confined to the prostate gland — has the best chance for successful treatment.

SYMPTOMS

Prostate cancer may cause no signs or symptoms in its early stages.

Prostate cancer that's more advanced may cause signs and symptoms such as:

- Trouble urinating
- Decreased force in the stream of urine
- Blood in the urine
- Blood in the semen
- Bone pain
- Losing weight without trying
- Erectile dysfunction

WHEN TO SEE A DOCTOR

Make an appointment with your doctor if you have any persistent signs or symptoms that worry you.

CAUSES

It's not clear what causes prostate cancer.

Doctors know that prostate cancer begins when cells in the prostate develop changes in their DNA. A cell's DNA contains the instructions that tell a cell what to do. The changes tell the cells to grow and divide more rapidly than normal cells do. The abnormal cells continue living, when other cells would die.

The accumulating abnormal cells form a tumor that can grow to invade nearby tissue. In time, some abnormal cells can break away and

spread (metastasize) to other parts of the body.

RISK FACTORS

Factors that can increase your risk of prostate cancer include:

- **Older age:** Your risk of prostate cancer increases as you age. It's most common after age 50.
- **Race:** For reasons not yet determined, Black people have a greater risk of prostate cancer than do people of other races. In Black people, prostate cancer is also more likely to be aggressive or advanced.
- **Family history:** If a blood relative, such as a parent, sibling or child, has been diagnosed with prostate cancer, your risk may be increased. Also, if you have a family history of genes that increase the risk of breast cancer (BRCA1 or BRCA2) or a very strong family history of breast cancer, your risk of prostate cancer may be higher.
- **Obesity:** People who are obese may have a higher risk of prostate cancer compared with people considered to have a healthy weight, though studies have had mixed results. In obese people, the cancer is more likely to be more aggressive and more likely to return after initial treatment.

COMPLICATIONS

Complications of prostate cancer and its treatments include:

- **Cancer that spreads (metastasizes):** Prostate cancer can spread to nearby organs, such as your bladder, or travel through your bloodstream or lymphatic system to your bones or other organs. Prostate cancer that spreads to the bones can cause pain and broken bones. Once prostate cancer has spread to other

areas of the body, it may still respond to treatment and may be controlled, but it's unlikely to be cured.

- **Incontinence:** Both prostate cancer and its treatment can cause urinary incontinence. Treatment for incontinence depends on the type you have, how severe it is and the likelihood it will improve over time. Treatment options may include medications, catheters and surgery.
- **Erectile dysfunction:** Erectile dysfunction can result from prostate cancer or its treatment, including surgery, radiation or hormone treatments. Medications, vacuum devices that assist in achieving erection and surgery are available to treat erectile dysfunction.

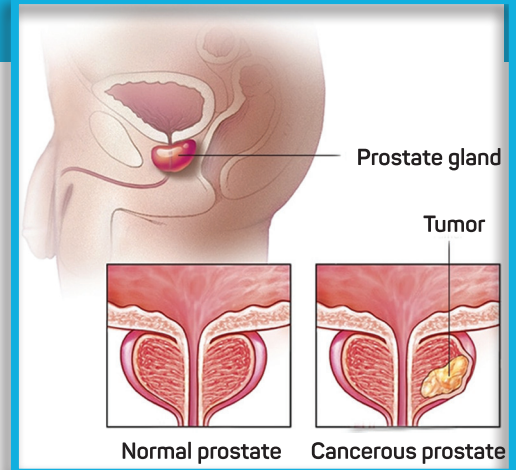
PREVENTION

You can reduce your risk of prostate cancer if you:

- Choose a healthy diet full of fruits and vegetables. Eat a variety of fruits, vegetables and whole grains. Fruits and vegetables contain many vitamins and nutrients that can contribute to your health.

Whether you can prevent prostate cancer through diet has yet to be conclusively proved. But eating a healthy diet with a variety of fruits and vegetables can improve your overall health.

- Choose healthy foods over supplements. No studies have shown that supplements play a role in reducing your risk of prostate cancer. Instead, choose foods that are rich in vitamins and minerals so that you can maintain healthy levels of vitamins in your body.
- Exercise most days of the week. Exercise improves your overall



health, helps you maintain your weight and improves your mood. Try to exercise most days of the week. If you're new to exercise, start slow and work your way up to more exercise time each day.

- Maintain a healthy weight. If your current weight is healthy, work to maintain it by choosing a healthy diet and exercising most days of the week. If you need to lose weight, add more exercise and reduce the number of calories you eat each day. Ask your doctor for help creating a plan for healthy weight loss.

Talk to your doctor about increased risk of prostate cancer. If you have a very high risk of prostate cancer, you and your doctor may consider medications or other treatments to reduce the risk. Some studies suggest that taking 5-alpha reductase inhibitors, including finasteride (Propecia, Proscar) and dutasteride (Avodart), may reduce the overall risk of developing prostate cancer. These drugs are used to control prostate gland enlargement and hair loss.

However, some evidence indicates that people taking these medications may have an increased risk of getting a more serious form of prostate cancer (high-grade prostate cancer). If you're concerned about your risk of developing prostate cancer, talk with your doctor.

VACCINATION PROGRAMME FOR DOGS

1. Vaccinations refer to timely injections given to healthy puppies and dogs to prevent them from getting certain infectious disease.

Dogs require a minimum of three vaccinations during the first year of life at three week intervals. The timing of the first vaccine depends on the disease risk level. Puppies are given the first dose at six weeks of age as a rule of thumb. This is on the assumption that the mother was fully vaccinated when it was a puppy and thereafter given yearly boosters of DHCP/Rabies to be able to pass on maternal antibodies to protect the puppies from zero to six weeks of age.

Puppies born from mothers which missed some vaccines are likely to be Immuno-compromised and therefore should be vaccinated earlier than six weeks of age.

Its recommended to start vaccinating such puppies at four weeks of age as follows :-



WHITE GSD



BLACK GERMAN SHEPHERD

Dogs Age	4 weeks	6 weeks	8 weeks	12 weeks
Vaccine Type	DP	DHCP	DHCP	DHCP and Rabies

N.B.
 DP : Distemper and parvo
 DHCP : Distemper/hemphatitis/leptospirosis/parvo
 DHCP/R : Distemper/hemphatitis/leptospirosis/parvo/rabies

After the initial vaccination which should also include treatment for worms (deworming) dogs get yearly vaccinations for DHCP/R plus deworming . Remember to include monthly dipping to control external parasites (ticks, fleas; lice) which can bring in tick born disease which can be transmitted to people.

In conclusion the extra cost of vaccinating a puppy four times instead of three (say 2 - 1300) is far outweighed by the benefits when dealing with a puppy worth P600.00. For a mongrel you were given free it can be debatable.

The next issue will have a vaccination programme for Sheep, Goats and Cows.

Lets help prevent corona.

By Doctor John Rukwava, BVSc
 Veterinary Surgeon

WHO WORKING GROUP – TARGET PRODUCT PROFILES FOR COVID-19 VACCINES

PREPARATIONS FOR DELIVERY

Overview

The current global nCoV public health emergency underscores the need to accelerate the development of nCoV candidate vaccines. The Working Group on Target Product Profile for vaccines against COVID-19 aims to provide guidance from an end-to-end perspective. The objectives of this group are:

- To develop a global target product profile (TPP) for vaccines against COVID-19.
- The TPP will include preferred and minimally acceptable profiles for two vaccines:
- Human vaccine – for long term protection of persons at high ongoing risk of COVID-19 such as healthcare workers.
- Human vaccine – for reactive use in

outbreak settings with rapid onset of immunity.

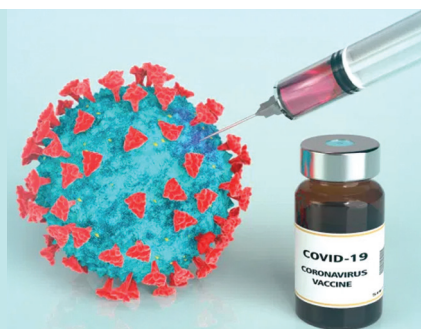
- To prepare and be available for the regular working group calls.
- To provide technical advice and support the WHO Secretariat through comments and or feedback from stakeholders.

CRITERIA FOR COVID-19 VACCINE PRIORITIZATION

Overview

Purpose of the document

The proposed attributes and criteria provide considerations for the evaluation and prioritization of COVID-19 candidate vaccines to be considered for further development by WHO. The target audience includes vaccine scientists, product developers, manufacturers, regulators and funding agencies.



The attribute and criteria below lay out some of the considerations that structure WHO's case-by-case assessments of COVID-19 vaccines in the future, with emphasis on prioritization for Phase IIb/III evaluation.

Criteria that are considered of major importance in ranking the vaccines are reported in bold in the table. WHO will also provide a scoring guide to promote consistency and predictability of evaluation. Source: www.who.int/emergencies/diseases/novel-coronavirus-2019/covid-19-vaccines

GLOBAL WIRELESS HEALTH AND FITNESS DEVICES INDUSTRY

Wireless Health & Fitness Devices Market Escapes the Ravages of the Virus Induced Economic Recession.

In times of COVID-19, significant focus is being shed on health and fitness. Exercise is one of the indispensable components of the holistic approach to healthy and quality living. Physical activity combined with a well-balanced diet is a perfect recipe for stimulating and strengthening the immune system that safeguards the host from diseases and infections.

The pandemic is profoundly influencing the everyday life of consumers around the world. Social, financial, physical, emotional and environmental issues are topping the priority list for consumers. Worries related to finances, childcare, elderly parents, job security, disruption to routine life are all triggers to stress in the current pandemic scenario.

Given that stress can weaken the immune system and compromise overall health and well-being, consumers are beginning to spend additional time, money, and resources on lifestyle changes, fitness routines, and food habits to deal with the pandemic. Exercise holds a profound effect on functioning of the immune system and improves immune response to vaccination, supports immune markers linked with various medical conditions, and reduces low-grade inflammation.

The rapidly increasing cases of COVID-19 globally have brought exercise in the spotlight owing to its beneficial role in improving immune health. Stress and inactivity inhibit the ability of T-cells to grow in numbers in response to the infectious agent. In addition, lymphocytes, a component of the immune system, are unable to identify and kill cells infected with pathogens like virus or that have turned cancerous. Every bout of physical exercise immediately unleashes billions of human immune cells, mainly those associated with identification and destruction of virus-infected cells. These mobilized cells move into the blood stream and

eventually trafficked to secondary tissues and lymphoid organs, especially the gut and lungs that require enhanced immune defense, like in case of COVID-19. Exercise may also alleviate the risk of developing acute respiratory distress syndrome (ARDS), a major complication and primary cause of mortalities related to COVID-19.

Against this backdrop, consumers are increasingly opting for wearable wireless sports, fitness and wellness devices with the intention of keeping themselves healthy and safe. Fitness wearables are among the most prevalent technology aids that are helping users to keep track of various aspects of their lifestyles and fitness regimens.

Driven by the Quantified Self trend, wearable devices for sports and fitness continue to gain the attention of consumers and enthusiasts alike as wearable fitness devices help users in collecting and measuring data based on the user's physical condition and performance. Wearers are increasingly using these devices for tracking their weight, step count, heart rate, calories burned, balance, breathing rate, explosive strength and the condition of their vital organs, as well as also for setting personal fitness goals.

The traditional patient-doctor model is currently undergoing significant changes under the influence of medical wearables. Wearable devices facilitate remote delivery of care through timely intervention by healthcare professionals via telemedicine. With an aging population and a rise in chronic diseases, the need for newer models for healthcare delivery is being felt more than ever.

Telemedicine in combination with technologies like wearables and AI can help bridge the gap, make healthcare more accessible, provide timely interventions and help keep patients out of the hospital while ensuring the quality of healthcare delivery. The use of telemedicine can

save time, reduce costs, and improve care coordination. When fitness devices integrate with EHRs, providers will have greater options to remotely monitor their patients. By leveraging big data analytics, payers and providers will be able to communicate and administer care much more proactively, leading to fewer hospital admissions.

Healthcare systems in high-income countries strive to care for patients with chronic conditions within overburdened practices and consultations, restricted to short visits. Using telemedicine for hosting follow-up appointments and treating patients remotely is a resource-efficient strategy. Healthcare practitioners can cater to a greater number of patients while bringing down the costs associated with healthcare delivery.

The COVID-19 outbreak placed unprecedented demands on healthcare system in various countries. The healthcare industry is at the forefront battling the coronavirus pandemic with challenges of increasing demand on health facilities and health care workers and supply chain disruptions. The seemingly accelerating pace at which the novel coronavirus spreads around the world has increased diversion of resources to coronavirus treatment and widespread disruption to routine healthcare services across the globe. Hospitals have also been urged to postpone or limit elective surgeries and other non-necessary treatments, which would keep beds free for COVID-19 infected patients. This in turn has led to hospitals and clinics shutting down their outpatient resources, which poses a major challenge in delivering non-urgent consultations. Against this backdrop, telemedicine is witnessing increased acceptance, particularly in monitoring chronic conditions or postoperative patients. Wearable technology can enable seamless remote patient monitoring through telemedicine during COVID-19.

Source: www.globenewswire.com



TELERADIOLOGY SERVICES IN BOTSWANA AND AFRICA

Context

- *Telemedicine is widely defined as the use of medical information exchanged from one site to another, via electronic communications to improve on patient's management.*
- *Images from different equipment are referred to a independent computer that is then accessed remotely by the Tele radiologist*

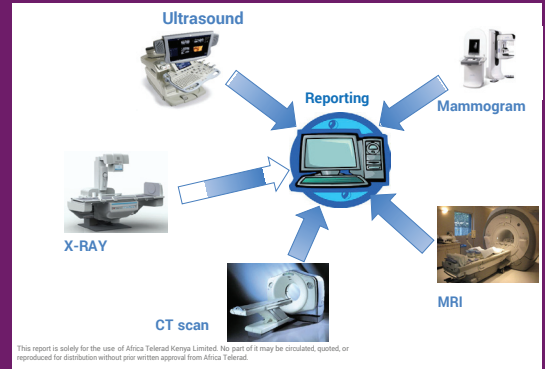
Objectives

- *To provide Robust Radiology Information System for seamless*

remote reporting of diagnostic conditions

- *To develop best in class examples of robust teleradiology solution applications and assist the Hospitals team to develop a strategy for implementation based on the global best practises.*
- *To provide advisory to the Hospitals medical services team in terms of radiology services, training and equipment placement according to their growth an expansion strategy*

TELERADIOLOGY SERVICES WORK



OFFERING QUALITY AND TIMELY REPORTING FOR ALL DIAGNOSTIC PROCEDURES FLOW

KEY CONSIDERATIONS

Several key considerations need to be taken into account prior to the acquisition and implementation of the teleradiology

	Key considerations	Resultant solutions
CONCEPT	<ul style="list-style-type: none"> • Feasibility • Additional patient benefits 	<ul style="list-style-type: none"> • What the teleradiology concept will do to the ____ Hospitals team's vision and the marginal benefit the team hope to get by investing in the teleradiology solution.
SELECTION	<ul style="list-style-type: none"> • Price • Robustness 	<ul style="list-style-type: none"> • ATL offers competitive prices for teleradiology reporting which are way cheaper than having a resident radiologist.
IMPLEMENTATION	<ul style="list-style-type: none"> • Timeframe • System integration • Training and uptake 	<ul style="list-style-type: none"> • The implementation of the solution and integration of the systems is immediate with a platform Integratable with all available RIMS.
ENABLING PARTNERS	<ul style="list-style-type: none"> • Suppliers – hardware, software, internet connectivity, system maintenance and support 	<ul style="list-style-type: none"> • Training programs are short and easy to the radiologists and radiographers. • The Afyrad software is easy to install, use and diagnose and operates in windows platforms.

ADVANTAGES OF TELERADIOLOGY

Teleradiology is set to increase access to quality diagnostic healthcare and promote other affiliated services

Teleconsultation

- Hospitals will be able to provide effective and efficient radiology specialist services with professionals conducting consultations, reporting and rendering diagnosis to patients remotely.

Teleradiology

- Teleradiology will provide a platform for radiologists to review and interpret medical images from the Hospitals remotely, improving the quality of patient care

Remote monitoring

- Doctors and nurses are able to remotely monitor their patients, especially those with chronic diseases or highly sensitive conditions – heart disease, asthma, stroke, cancers etc.

Affiliated services

- Provision of continuous medical education for health professionals and special medical education seminars for targeted groups in remote locations, like this one.

TELERADIOLOGY FOUR KEY STRENGTHS

- TECHNOLOGY**
 - Robust Radiology Information System – Compatible with PACs
 - Afyrad – AT Image Reporting Platform - HMIS
- SECURITY**
 - Data is secure and the pipeline of transmission is IP protected
 - Password Protected software's
 - Integrity of the image in not compromised
- QUALITY**
 - High Quality reports on X-ray (both digital and conventional), Ultrasound, CT scan, MRI and Mammogram
 - Team of sub specialized radiologists provide 24- -hour coverage for our clients.
 - Provision of IT support round the clock and highly specialized team of IT specialist
- SPEED**
 - Turnaround Reporting Time of less than an hour from the Radiologists for the urgent cases

IMPACT AND BENEFITS OF TELERADIOLOGY IN PROVIDING MEDICAL IMAGING ACCESS

- ACCESS**
 - Night, weekend, and vacation coverage.
 - Tele-consultation - contact with referring physicians
 - Affecting more than 1 million patients annually
- QUALITY**
 - Second opinions from experts and specialists for complicated cases
 - Specialists in the different interventional radiology procedures
- AFFORDABILITY**
 - Mobile payment schemes
 - ZERO cost of installation at your hospital
 - No Labour risks
 - PACS system not necessary
- SPEED**
 - Turnaround reporting time of less than 1 hour
 - 24 hour coverage every day of the year
 - Flexibility to meet patients needs

OTHER SERVICES

Africa Telerad has played critical supporting roles to capacity building and advances in the field of radiology

EDUCATION, TRAINING AND CURRICULUM DEVELOPMENT

Worked with a wide range of radiology experts to develop a comprehensive training curriculum for the radiologists and radiographers.

Worked with the Kenya Association of Radiologists in organizing for regional and international workshops and conferences Provided expert talks in conferences and CMEs on matters radiology and application of e-health and telemedicine

INTERVENTIONAL RADIOLOGY SERVICES

Actively involved in Ultrasound and CT guided procedures within the partner hospitals and clinics

Developed a comprehensive checklist and protocols interventional radiological diagnostic procedures for Wellness Group and a host of other partner hospitals .

Providing advise on equipment needs and placement depending on the feasibility studies on specific areas

KIBUNGO HOSPITAL, Rwanda
BOTSWANA: ALWAYS OPEN
CLINICS- KB MALL and
KARONG CLINIC-MEDICAL
DIAGNOSTIC IMAGING MAIN MALL.

KITOVU HOSPITAL, MASAKA.
BYANSI HOSPITAL, MASAKA
MAYANJA MEMORIAL, MBARARA. ETC
UMC Victoria Hospital

JUBA COMPLEX
HOSPITAL
SOMALIS GENERAL

Website:
www.africatelerad.co.ke

E-mail: drjsenoga@teleradafrica.com,
geraldholdings@gmail.com

Phone:
0774196811, 0705800015
Cell +267 71899311

Mail:
P.O Box 981 Gaborone, Botswana
P O BOX 2534, KAMAPALA

SPECIAL CONSIDERATIONS:

Prevention and Diagnosis of COVID-19

The COVID-19 Treatment Guidelines Panel recommends using the same approach for the prevention and diagnosis of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection in people with human immunodeficiency virus (HIV) as in people without HIV.

Management of COVID-19 in People With HIV

Recommendations for the triage, management, and treatment of COVID-19 in people with HIV are the same as those for the general population.

In people with advanced HIV and suspected or documented COVID-19, HIV-associated opportunistic infections (OIs) should also be considered in the differential diagnosis of febrile illness. When starting treatment for COVID-19 in a patient with HIV, clinicians should pay careful attention to potential drug-drug interactions and overlapping toxicities among COVID-19 treatments, antiretroviral (ARV) medications, antimicrobial therapies, and other medications.

People with HIV should be offered the opportunity to participate in clinical trials of vaccines and potential treatments for SARS-CoV-2 infection.

Remdesivir should be used as recommended in the Remdesivir section of these Guidelines. There are no significant drug-drug interactions expected between remdesivir and ARV drugs. Dexamethasone should also be used as recommended in the Corticosteroids section of these Guidelines. Dexamethasone is an inducer of hepatic enzymes and could potentially lower levels of certain coadministered ARV drugs.

However, this interaction is not expected to be clinically significant based on the short duration of dexamethasone therapy (up to 10 days) in the RECOVERY trial. Although some ARV drugs are being studied for the prevention and treatment of COVID-19, no agents have been shown to be effective.

A variety of immunomodulatory therapies are prescribed empirically or administered as part of a clinical trial to treat severe COVID-19 disease. Data about whether these medications are safe to use in patients with HIV are lacking. If a medication is proven to reduce the mortality of patients with COVID-19 in the general population, it should also be used to treat COVID-19 in patients with HIV, unless data indicate that the medication is not safe or effective in this population.

Management of HIV

People with HIV who develop COVID-19, including those who require hospitalization, should continue their antiretroviral therapy (ART) and OI prophylaxis whenever possible. Clinicians treating COVID-19 in people with HIV should consult with an HIV specialist before adjusting or switching ARV medications.

An ART regimen should not be switched or adjusted (i.e., by adding ARVs to the regimen) for the purpose of preventing or treating SARS-CoV-2 infection. For people who present with COVID-19 and a new diagnosis of HIV, clinicians should consult an HIV specialist to determine the optimal time to initiate ART.

Prevention of COVID-19 in People With HIV

The COVID-19 Treatment Guidelines Panel (the Panel) recommends using the same approach in advising persons with HIV on

the strategies to prevent acquisition of SARS-CoV-2 infection as used for people without HIV. There is currently no clear evidence that any antiretroviral (ARV) medications can prevent the acquisition of SARS-CoV-2 infection.

Diagnostic and Laboratory Testing for COVID-19 in People With HIV

Diagnosis of COVID-19 in People With HIV

The Panel recommends using the same approach for diagnosis of SARS-CoV-2 infection in people with HIV as in those without HIV. There is currently no evidence that the performance characteristics of nucleic acid amplification testing (NAAT) for diagnosis of acute SARS-CoV-2 infection differ in people with and without HIV. The Panel recommends against the use of serologic testing as the sole basis for diagnosis of acute SARS-CoV-2 infection. However, if diagnostic serologic testing is performed, the results should be interpreted with caution, especially in patients with HIV because cross-reactivity between antibodies to SARS-CoV-2 and HIV has been reported.

Correlation of CD4 Count in People With HIV and COVID-19

The normal range of CD4 T lymphocyte (CD4) cell counts in healthy adults is about 500 to 1,600 cells/mm³. Persons with HIV and CD4 count of ≥ 500 cells/mm³ have similar cellular immune function to persons without HIV. In people with HIV, a CD4 count < 200 cells/mm³ meets the definition for AIDS. For patients on ART, the hallmark of treatment success is plasma HIV RNA below the level of detection by a PCR assay. Lymphopenia is a common laboratory

TO PAGE 13

PREVENTION AND CONTROL IN THE WORKPLACE

FROM PAGE 07

They were reminded that exposure may occur anytime, as they travel to and from the workplace, and while they are at work.

- Individually, we need to take command of our protective measures against COVID. If we do so, we are protecting everyone else in the workplace and elsewhere.

MOVING FORWARD

- There should be better implementation of contact tracing and quarantine procedures for workers, including proper identification of and coordination with close contacts and their families. Companies were thus encouraged to establish and maintain reporting mechanisms with the Department of Health and their local government for tracking and validation of data especially on confirmed cases and close contacts.

- Employers and employees have an important role in reducing transmission, providing a better health capacity system, and mitigating the social impact (of workplace infections).

Workers are considered among the most vulnerable to COVID-19 infection, more so those in enclosed spaces or in close proximity with others.

Source: www.who.int.com

IN PEOPLE WITH HUMAN IMMUNODEFICIENCY VIRUS



FROM PAGE 12

finding in patients with COVID-19; in patients with HIV, clinicians should note that CD4 counts obtained during acute COVID-19 may not accurately reflect the patient's HIV disease stage.

There have been some reports of persons with advanced HIV who have presented with COVID-19 and another coinfection, including *Pneumocystis jirovecii* pneumonia. In patients with advanced HIV with suspected or confirmed SARS-CoV-2 infection, clinicians should consider a broader differential diagnosis for clinical symptoms and consider consultation with an HIV specialist.

Clinical Presentation of COVID-19 in People With HIV

It is currently not known whether the incidence of SARS-CoV-2 infection or the rate of progression to symptomatic disease is higher in persons with HIV.

There are several case reports and case series that describe the clinical presentation of COVID-19 in persons with HIV. These studies indicate that the clinical presentation of COVID-19 is similar in persons with and without HIV. Most of the published reports describe populations in which most of the individuals with HIV are on ART and have virologic suppression. Consequently, the current understanding of the impact of COVID-19 in persons with advanced HIV with low CD4 counts or those with persistent HIV viremia is limited.

Management of HIV in People With SARS-CoV-2/HIV Coinfection

Below are some general considerations regarding the management of HIV in people

with SARS-CoV-2/HIV coinfection.

ART and opportunistic infection prophylaxis should be continued in a patient with HIV who develops COVID-19, including in those who require hospitalization, whenever possible. ARV treatment interruption may lead to rebound viremia, and in some cases, emergence of drug resistance. If the ARV drugs are not on the hospital's formulary, administer medications from the patient's home supplies (if available).

Clinicians treating COVID-19 in people with HIV should consult with an HIV specialist before adjusting or switching a patient's ARV medications. An ART regimen should not be switched or adjusted (i.e., by adding ARVs to the regimen) for the purpose of preventing or treating SARS-CoV-2 infection. Many drugs, including some ARV agents (e.g., lopinavir/ritonavir, boosted darunavir, and tenofovir disoproxil fumarate/emtricitabine), have been or are being evaluated in clinical trials or are prescribed for off-label use for the treatment or prevention of SARS-CoV-2 infection. To date, lopinavir/ritonavir and darunavir/ritonavir have not been found to be effective. Two retrospective studies suggest an effect of tenofovir disoproxil fumarate/emtricitabine in preventing SARS-CoV-2 acquisition or hospitalization or death associated with COVID-19; however, the significance of these findings is unclear as neither study adequately controlled for confounding variables such as age and comorbidities.

For patients who are taking an investigational ARV medication as part of their HIV regimen, arrangements should be made with the investigational study team to continue the medication, if possible.

For critically ill patients who require tube feeding, some ARV medications are available in liquid formulations and

some, but not all, ARV pills may be crushed. Clinicians should consult an HIV specialist and/or pharmacist to assess the best way for a patient with a feeding tube to continue an effective ARV regimen. Information may be available in the drug product label or in this document.

For people who present with COVID-19 and have either a new diagnosis of HIV or a history of HIV but are not taking ART, the optimal time to start or restart ART is currently unknown. For people with HIV who have not initiated ART or who have been off therapy for 2 weeks before presenting with COVID-19, the Panel recommends consultation with an HIV specialist regarding initiation or re-initiation of ART as soon as clinically feasible. If ART is started, maintaining treatment and linking patients to HIV care upon hospital discharge is critical.

Clinical Outcomes of COVID-19 in People With HIV

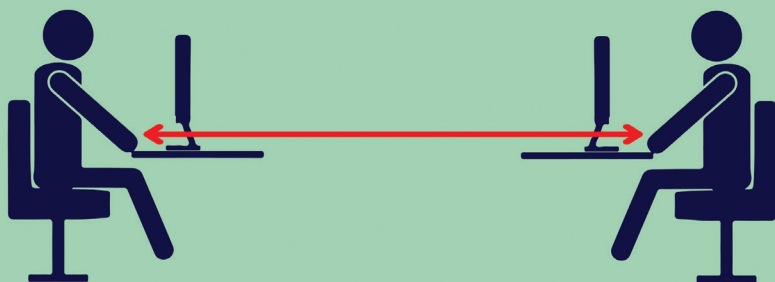
No significant differences in clinical outcomes have been noted in several small case series. Study were analyzed to compare outcomes in 253 mostly male participants with HIV and COVID-19 who were matched with 504 participants with only COVID-19. In this comparison, there was no difference in COVID-19-related hospitalization, intensive care unit admission, intubation, or death in patients with or without HIV.

Special Considerations in Children and Pregnant Women With HIV Who Develop COVID-19

Currently, there is limited information about pregnancy and maternal outcomes in women with HIV who have COVID-19 and in children with HIV and COVID-19.

Source: www.covid19treatmentguidelines.com

Social Distancing



If you still need to work, practice as much social distancing as your office space allows

the family

CLINIC & SURGERY

MACHA MEDICAL CENTRE
"We believe in Service Excellence"

Contact: Tel/Fax: +267 391 7003
Cell: +267 7328 4965 / +267 7564 5967
Email: thefamilypractice13@yahoo.com

SERVICES

General Adult & Children's Clinic • SRH / Gynecological Services
Medical Examination • Scanning

DR. MOONO E. MUNSANJE
Medical Director

Plot No 449 Isang Close Ext 4
(near Tebelopele),
Gaborone, Botswana
P. O Box AD 25 AEG station
Gaborone, Botswana

MEDICAL DIAGNOSTIC IMAGING

based in Greater Gaborone- contacts- (Gerald M Z (Supt Rad)
Tel 3911529, APP 75098683, cell 71899311

Service offered:-

- **X-ray examination:-** including medical exam, food handlers, license, visa, employment, work permit, students, workers fitness, Corporate & executive medical imaging.
- **Teleradiology:-** including x-ray examination & report, recommendation for other modalities i.e. Fluoroscopic, CT/MRI scan
- **Ultrasound Scanning:-** including- (Doppler scan, Small parties, Breast & Prostate scanning)

**Booking and appointment arrangements for medical imaging,
ALL MEDICAL AID ACCEPTED- (Botsogo, Bomaid & AFA)**

★ KWENENG VETERINARY CLINIC ★

DR. JOHN RUKWAVA
BVSc

Veterinary Surgeon

Plot 23805, Phase 4
Gaborone West - Botswana
P. O Box 233 Mogodisthane

Tel: (+267) 390 0468
Cell: (+267) 7216 4673
Fax: (+267) 393 3699

Email: johnrukwava70@gmail.com

DR. M. H. KHAN



(+267) 39 340 11
(+267) 39 345 18
(+267) 71 73 7151
mhkhanbw@yahoo.co.uk

895 KAUNDA Road Extension 2
Gaborone P O Box 21714
Bontleng Gaborone



Dr. Mphoentle Thangwane
dental surgeon

Plot 949 Ex2, Kaunda Rd
P. O. Box 21357, Gaborone, Botswana
Tel: (+267) 74 663 412 Fax: (+267) 77 995 811
Email: mgthangwane@gmail.com



Dr Matshidiso Mokgwathi M.D. FCP (SA), MMED (UB)
Specialist Physician - Internal Medicine

Bokamoso Private Hospital
Medical North, Doctors' Suites
Plot # 4769, Mmopane Block 1
Molepolole Road

BOOKINGS: +267 369 4842 / 71578763
medlinkspecialistclinic@gmail.com



Plot No: 2838, Thebe Crescent
Off Church Road, Ext 10
Gaborone, Botswana

P O Box 202077
Gaborone, Botswana

Ethel Letshwiti - Monggae

Optometrist & Contact Lens Practitioner
B. Optom UJ (SA)

BHPC No: ROptom-2010-HP000004933-LG1
<https://m.facebook.com/visionclarityoptometrists>

+267 3113335 Fax: 3113336

+267 71852873

info@visionclarity.co.bw



DR. GEOFFREY MULUNGU
General Practitioner

Plot 176, Phaphane Ward, Opp. Sedibelo Hotel
P.o. Box 46713, Gaborone
Tel/Fax: +267 5729413, Mobile: +267 74846034
E-mail: geomulungu@gmail.com

Mul+iCare

MEDICAL CENTRE

Dr. Isabella N. Maeda

Tlokweng
Border Gate Mall
Suite No. 4
P.O. Box 20080, Gaborone
Botswana

MBChB(Dar); PGD (Stell)
General Practitioner

Tel: 391 3731
Fax: 391 3729
Cell: 72554871
maedakatumba@yahoo.co.uk



Back Pain • Sports Injuries • Work Related Injuries • Bone, Muscle & Joint Aches



Keitumetse Ingrid Makuku
Dietitian

P.O. Box 501444, Gaborone, Botswana
cell: 72251812 / 73280870 / 73952378 email: bonatlawellness@gmail.com

Services offered include: Nutrition Advise, Nutrition Counselling, Nutrition Education, Nutrition Coaching on lifestyle conditions including overweight and obesity, Diabetes, high Blood Pressure, Allergies, Weight Gain, malnutrition, Nutrition Empowerment sessions for kids, Menu Review and Development in the Food Service Industry, Sports Nutrition, Fruit Smoothie preparations and supply to individuals and Corporates,



Dr. Samera Siddiqi
General Practitioner
M.B.B.S, NUST (Pak) D.P.D CARDIFF UNI (UK)

Cell: 724 592 08
Tel: 3903132
Fax: 390 3134
Email: doctorsiddiqi@gmail.com

P.O. Box 404326,
Gaborone,
Plot 12581, Partial Nyerere Drive,
Gaborone

There is no medicine like hope, no incentive so great
and no tonic so powerful as expectation of something better tomorrow

DR. V. S. R. GULLAPALLI

Medical Practitioner

P.O. Box 70749,
Gaborone, Botswana
Tel: 393 4139, Cell 71778267
email: vsrgee@yahoo.com



Optical Centre (Botswana) Pty Ltd.

OPHTHALMIC AND DISPENSING OPTICIANS

Head Office:
Plot 1154, Botswana Road Gaborone | Tel: 3933874, Fax: 3933875
Email: opticscb@gmail.com
P.o Box 379, Gaborone
Branch: Plot 684, Botswana Road | Tel/Fax: 3906689



DR. KIRIGITI'S PRIVATE CLINIC

DR. E. V. Kirigiti (MBBS)
Private Medical Practitioner

Bontleng Mall | Plot No 8769
P.O. Box AD 643 ADD, Gaborone, Botswana
Tel: 397 4540 | Cell 72107852 | email: zenjiivest@gmail.com



Dr. Innocent Mungandi

Plot 4921 Village Medical Centre • Moselebe Road, Gaborone
Tel: 371 0300 / 391 2842 • Fax: 271 0302 / 391 2686

General Practitioner
BSc, MBChB, Dcardiol (Lond),
MSc Fellow, Cardiovascular Medicine (Wales)

Cell: 75959706
email: operations@cardiacclinic.co.bw
docinnocent@yahoo.com



Unit: 11, Lot: 171, Oasis Hotel Premises
Zecrust Road, Tlokweng, Botswana
Cell: (+267) 74536085
E-mail: tanya_optom@hotmail.com



At Eye Light Optometrists we have developed a unique model inspired by 'education through service' through which we provide customers with a re-defined Eye-Checkup Experience by a professional who has over 25 years of experience in the field and counting!

Thanuja Panicker

Secretary - Botswana Optometrists Association
Vice Chairman - Sight Preservation (Lions District 412 - Botswana, Malawi, Mozambique & Zimbabwe)
Centennial Charter Lions Club of Greater Gaborone - Club President (2017-2018)
Refractive Services Co-ordinator, PEEK Vision Botswana, Ministry of Health

Dr. JOHN B. AYO

MB, CHB (Makerere)
Cell: 721 077 96
Email: ayo@btcmal.co.bw

Polyhealth Service
P.O. Box 403036
Gaborone
Botswana

Plot 406
Kgasa Road
Extension 4, Gaborone
Tel: 395 1433 (Surgery)
393 0002 / 397 1111
Fax: 391 3565 (Res)



DIAGNOFIRM
MEDICAL LABORATORIES
PATHOLOGY YOU CAN TRUST

HEAD OFFICE: Plot No. 12583, Nyerere Drive | Private Bag 283, Gaborone | Phone: (+267) 3950007
Emergency (+267) 72538098 / 7132 0331 | Fax: (+267) 3957980 | E-mail: lab@diagnofirm.co.bw | www.diagnofirm.co.bw

BRANCH AND DEPOT CONTACTS

Head Office - Gaborone Laboratory

Plot 12583, Nyerere Drive,
Middlestar, Gaborone.
Tel: 395 0007 Fax: 395 7980
Mon-Fri: 07:00AM - 08:00PM
Sat & Sun: 07:00AM - 04:00PM

DEPOTS AROUND GABORONE

Independence Depot

Plot 258/259/260,
Molefi Close, Extension5,
Gaborone
Tel: 373 2973
Mon-Fri: 08:00AM - 05:00PM
Sat: 08:00AM - 12:00PM

Broadhurst Depot

Plot 13128/O2,
Legae Centre, Broadhurst,
Gaborone
Tel: 373 2975
Mon-Fri: 08:00AM - 05:00PM
Sat: 08:00AM - 12:30PM

Fairgrounds Depot

Medswana House,
Fairgrounds,
Gaborone
Tel: 373 2970
Mon-Fri: 08:00AM - 05:00PM
Sat: Closed

Village Depot

Plot 4921,
Village Medical Centre, Village
Gaborone
Tel: 373 2977
Mon-Fri: 08:00AM - 05:00PM
Sat: 08:00AM - 12:30PM

Extension 2 Depot

Plot 838, Pabalelo Way,
Extension 2,
Gaborone
Tel: 373 2978
Mon-Fri: 08:00AM - 05:00PM
Sat: 08:00AM - 12:30PM

Broadhurst Industrial Depot

Plot 4754,
Dr.Kadiyala Surgery,
Gaborone
Tel: 373 2979
Mon-Fri: 08:00AM - 08:00PM
Sat: 08:30AM - 12:30PM

Extension 10 Depot

Plot 2819, Thebe Circle,
Extension 10
Gaborone
Tel: 373 2980
Mon-Fri: 08:30AM - 05:30PM
Sat: Closed

Karong Clinic Depot

Plot 334, Marina Park
Extension 5,
Gaborone
Tel: 373 2971
Mon-Fri: 08:00AM - 05:00PM
Sat: Closed

CBD Depot

Inside Zeta Clinic
Plot 54373, Matante Mews,
Gaborone
Tel: 373 2981
Mon-Fri: 08:00AM - 08:00PM
Sat: 08:30AM - 12:30PM

Mogoditshane Depot

Plot 956,
Medihealth Family Clinic,
Mogoditshane, Gaborone
Tel: 373 2976
Mon-Fri: 08:00AM - 05:00PM
Sat: 09:00AM - 01:00PM

Sebele Depot

Unit 30,
Sebele Shopping Mall,
Gaborone
Tel: 373 2982
Mon-Fri: 08:00AM - 05:30PM
Sat: 08:00AM - 12:30PM

Molapo Depot

Unit 107,
Molapo Crossing Mall,
Gaborone
Tel: 373 2983
Mon-Fri: 08:00AM - 05:00PM
Sat: 09:00AM - 01:00PM

Bodiba Mall Depot

Plot 13446, Unit 8A,
Bodiba Mall
Gaborone
Tel: 373 2972
Mon-Fri: 08:00AM - 05:00PM
Sat: 08:00AM - 12:00PM

Extension 12 Depot

Plot 3417,
HospitalWay Medical Centre
Extension12, Gaborone
Tel: 373 2984
Mon-Fri: 08:00AM - 05:00PM
Sat: 08:00AM - 12:30PM

BRANCHES AROUND BOTSWANA

Francistown Laboratory

Plot 467, Unit-7,
Blue Jacket Street.
Francistown
Tel: 241 2610
Fax: 241 2613
Mon-Fri: 08:00AM - 05:00PM
Sat: 08:00AM - 01:00PM

Palapye Laboratory

Plot 1707, Unit-1B,
Lotsane Complex,
Palapye
Tel: 490 0066
Fax: 490 0181
Mon-Fri: 08:00AM - 05:00PM
Sat: 08:00AM - 01:00PM

Kazungula Laboratory

Shop 25,
Borogo Junction Mall,
Kazungula
Tel: 625 2244
Fax: 625 2268
Mon-Fri: 08:00AM - 05:00PM
Sat: 08:00AM - 01:00PM

Selebi Phikwe Laboratory

Inside BCL Mine Hospital
Selebi Phikwe
Tel: 260 0599
Fax: 260 1633
Mon-Fri: 08:00AM - 05:00PM
Sat: 08:00AM - 01:00PM

Maun Laboratory

Plot 726,
Old Mall, Maun.
Tel: 686 0330
Fax: 686 0296
Mon-Fri: 08:00AM - 05:00PM
Sat: 08:00AM - 01:00PM

Mahalapye Depot

Unit-6, Plot 4729,
Kimberley Fashion Mall,
Mahalapye
Cell: 7784 9813
Mon-Fri: 08:00AM - 05:00PM
Sat: 08:00AM - 01:00PM

Kasane Depot

Plot 720,
President Avenue,
Kasane
Cell: 7677 1341
Mon-Fri: 08:00AM - 05:00PM
Sat: 08:00AM - 01:00PM

Serowe Depot

Plot 100,
Jet Hardware Complex,
Serowe.
Cell: 7677 1340
Mon-Fri: 08:00AM - 05:00PM
Sat: 08:00AM - 01:00PM

Kanye Depot

Plot 262,
Desai ShoppingComplex,
Sebonego Ward, Kanye.
Tel: 544 1739
Mon-Fri: 08:00AM - 05:00PM
Sat: 08:00AM - 01:00PM

Lobatse Depot

Plot 305,
Letsholathebe Road,
Lobatse.
Tel: 530 0162
Mon-Fri: 08:00AM - 05:00PM
Sat: 08:00AM - 01:00PM

Francistown Depot

1st Floor,
Botswana Life Building,
Francistown.
Tel: 241 2610
Mon-Fri: 08:00AM - 05:00PM
Sat: 08:00AM - 01:00PM

Molepolole Depot

Plot 7088, Unit-4&5,
Inside A O Clinic,
Molepolole
Cell: 7784 8741
Mon-Fri: 08:00AM - 05:00PM
Sat: 08:00AM - 01:00PM

Mochudi Depot

Unit 176, Raserura Road,
Inside Botsogo Medical Centre
Mochudi
Cell: 7566 1125
Mon-Fri: 08:00AM - 06:00PM
Sat: 08:00AM - 02:00PM

Ramotswa Depot

Plot 16 & 17,
Lesetlhana Ward
Ramotswa
Cell: 7569 8913
Mon-Fri: 08:00AM - 05:00PM
Sat: 08:00AM - 01:00PM

Lethlakane Depot

Unit-1, Tawana Ward,
Rapha Complex,
Lethlakane
Cell: 7569 8914
Mon-Fri: 08:00AM - 05:00PM
Sat: 08:00AM - 01:00PM

Mogoditshane Depot

Plot 1296, Unit-1,
Mogoditshane
Gaborone
Tel: 373 2986
Mon-Fri: 08:00AM - 05:00PM
Sat: 08:00AM - 12:30PM

Railpark Mall Depot

Plot 471, Unit-G37A,
Railpark Mall,
Gaborone
Tel: 373 2985
Mon-Fri: 08:00AM - 07:00PM
Sat: 08:00AM - 04:00PM

Airport Junction Depot

Plot 70665, Unit-24&24A,
Inside MRI Clinic
Gaborone
Tel: 373 2988
Mon-Fri: 09:00AM - 07:00PM
Sat: 09:00AM - 03:00PM

Turn Right Mall

Plot 62, Shop 15,
Inside AO Clinic
Mogoditshane, Gaborone
Tel: 373 2974
Mon-Fri: 08:00AM - 05:00PM
Sat: 09:00AM - 12:30PM

Phakalane Depot

Plot 42794, Unit-2,
Phakalane Medical Centre
Gaborone
Tel: 373 2987
Mon-Fri: 08:00AM - 05:00PM
Sat: 08:00AM - 12:30PM

Acacia Mall

Plot 75123, Unit14A,
Inside Dr.Gure's Clinic
Gaborone
Tel: 373 2988
Mon-Fri: 09:00AM - 07:00PM
Sat: 09:00AM - 03:00PM

Setlhoa Retail Park

Unit 11,
Block 10, Setlhoa
Gaborone
Tel: 373 2969
Mon-Fri: 08:00AM - 05:00PM
Sat: 08:00AM - 01:00PM

Email: lab@diagnofirm.co.bw
Web: www.diagnofirm.co.bw
Diagnofirm (Mobile App): App Store/Google play
Online Services:
www.diagnofirm.co.bw/onlineservices
Newsletter:
www.diagnostic-update.com

Note: Some of our depots are closed for lunch from 01:00PM to 02:00PM

