Health Edge

A Quarterly Publication by National Hospital Abuja

May/June 2022 Edition - Progress Report | No 2. June 2022 | Not For Sale

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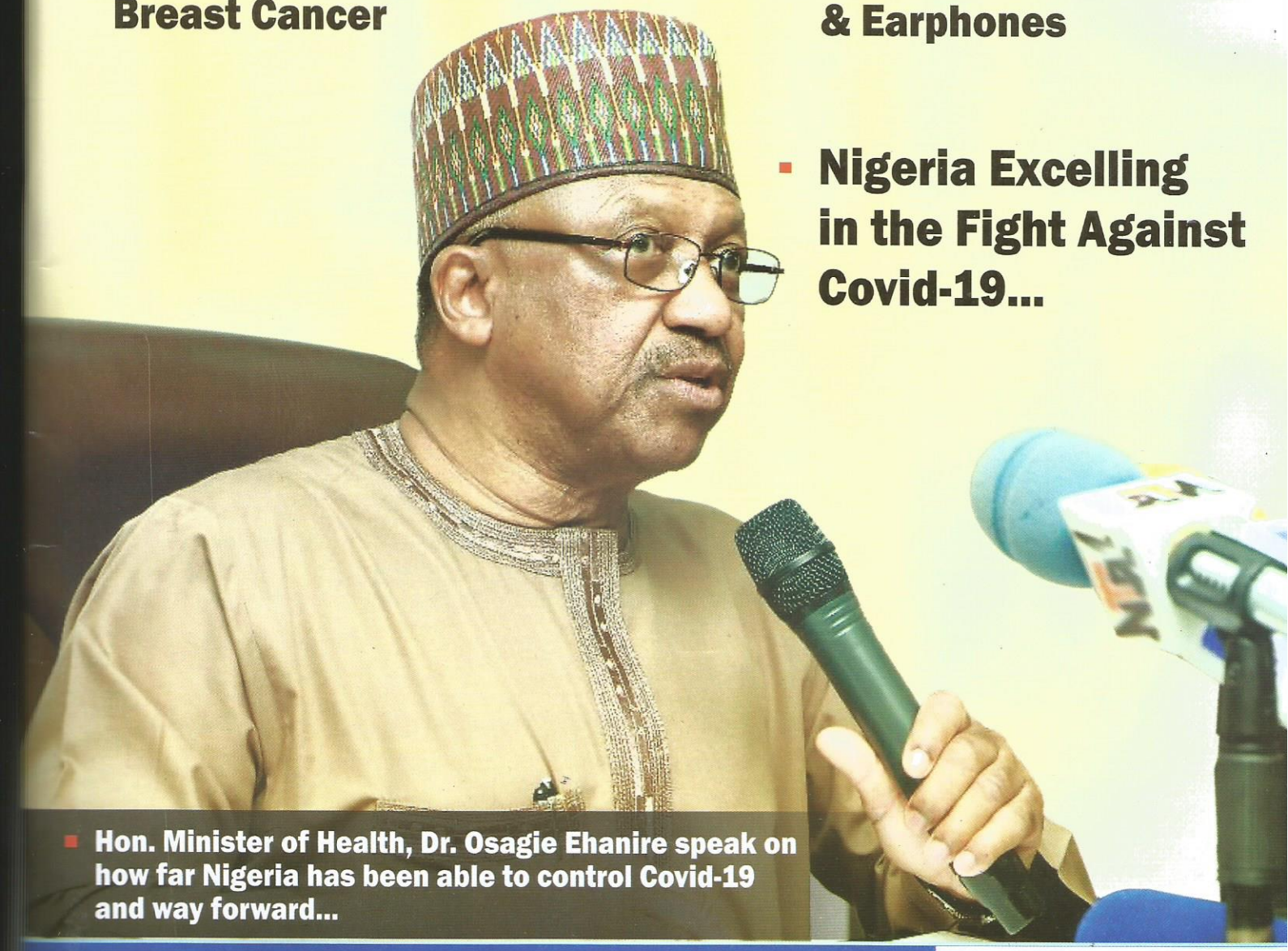
- **Harmful Effects of Using Headphones & Earphones**
- **Nigeria Excelling in the Fight Against Covid-19...**



- **Hon. Minister of Health, Dr. Osagie Ehanire speak on how far Nigeria has been able to control Covid-19 and way forward...**

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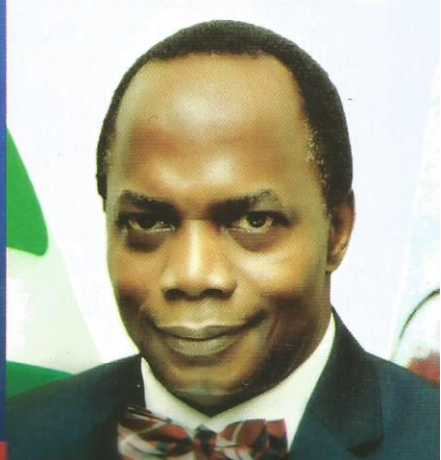

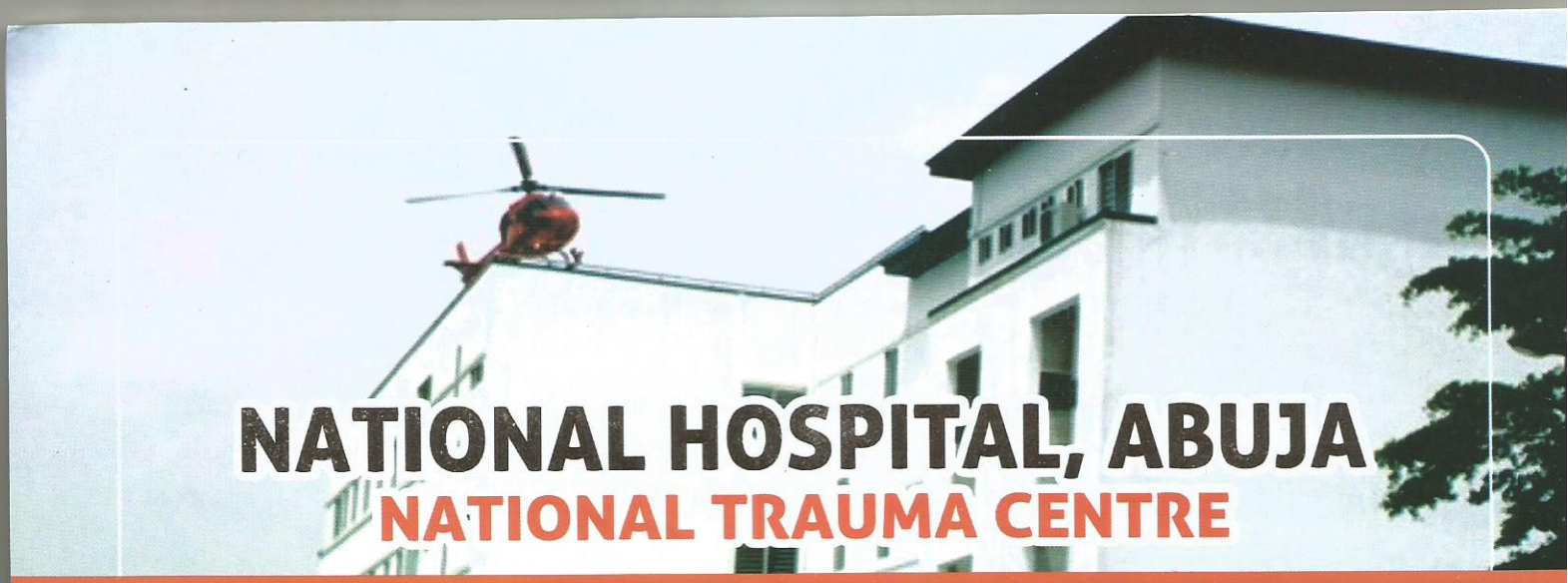

NATIONAL HOSPITAL, ABUJA

NATIONAL TRAUMA CENTRE

POST-FELLOWSHIP TRAINING IN TRAUMA & SURGICAL CRITICAL CARE

The National Trauma Centre was commissioned on the 11th of August 2014 and has been accredited for Post Fellowship Training in Trauma and Surgical Critical Care by the West African College of Surgeons.

The National Trauma Centre, National Hospital Abuja in collaboration with The West African College of Surgeons, annually invites applications from Surgeons in any of the surgical specialties (General, Orthopaedic, Urological, Paediatric, Cardiothoracic, Neuro and, Plastic surgeries) for Twelve (18) months (Full Time) training in Trauma Care at the National Trauma Centre, National Hospital, Abuja.

Successful completion of the training will lead to the award of a Fellowship in Advanced Trauma Care of the West African College of Surgeons.

Requirements:

1. FWACS or equivalent qualification acceptable to the West African College of Surgeons.
2. **Evidence of personal commitment and interest in trauma and surgical critical care (Research and publications)**
3. Registration with the Medical and Dental Council of Nigeria.

Note:

Fellows who are already in the permanent employment of other institutions, can apply for the training with the permission of their institutions, and should be able to return to the primary institutions at the completion of their training.

All Applications are addressed to:

The Chief Medical Director
National Hospital,
Plot 132 Central District (Phase 1)
P. M. B. 425 Garki, **Abuja.**

All applications are expected to reach the CMD not later than two weeks from the date of an advertisement in two Nigerian Daily Newspapers.

Signed
Director of Clinical Services
For: Chief Medical Director/CEO

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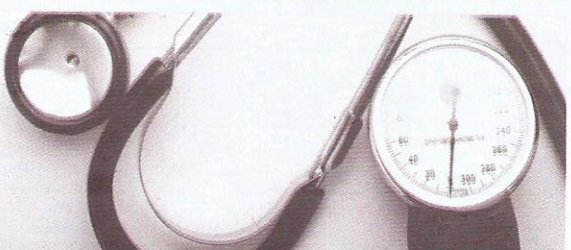

NATIONAL HOSPITAL ABUJA

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From the office of the

Chief Medical Director & Editor-in-chief

COMMITMENT IS KEY TO ACHIEVING SUCCESS IN A HEALTH CARE

Health Care is undoubtedly vital to mankind hence many professions have emerged in its practice. Like any other profession of human endeavour, the practice of health care needs determination and commitment to thrive and excel. The degree of of success is commensurate to the level of commitment of the work force as well as the financial investment.

Therefore, in every organization, successes are not achieved by a single person or one entity but rather through collective efforts. In this regard, human and material resources play significant roles in achieving quality health care.

I would like to commend staff of National Hospital Abuja for their commitment and determination in ensuring proper utilisation of available resources to provide quality health care.

National Hospital Abuja has expanded to 450beds admission capacity with expansion and commissioning of facilities and services in the areas of emergency care, cancer care, infectious disease facilities and executive wing. The ambience of the hospital has remained well maintained and enviable.

Accreditation for Postgraduate training in Nursing (Nephrology and Oncology) and Residency training programmes in most departments have been achieved through prudent use of resources. This has made the quest for national Hospital as a training centre of preference for many trainees. The Hospital has in the last three years become a host centre for the West African postgraduate Medical Colleges' examinations, giving credence to the quality of medical services rendered in the hospital.

Uninterrupted energy supply is ensured by three automatic power generating sets with 1500kv capacity which are well maintained and in use alternately with the power supply by the Abuja Electricity Distribution Company (AEDC).

The Computerisation and deployment of digital technology has led to efficiency in resource management. Pathology laboratories, medical records and accounts (billing/payments) of the Hospital are fully automated for accountability and proper documentation.

Dr. JAF Momoh

Furthermore, National Hospital Abuja has produced and commenced implementation of "Quality of Care Policy Document" in line with the National Health Act 2014 which mandates every Federal Teaching Hospital to have Quality Management System in place.

The Governing Board has approved a new quality policy document for the hospital. The details are contained in a Quality of Care Policy (QOCP) and Clinical Governance Document. Some of the The QOCP documents are also available on the National Hospital website.

STATEMENT OF QUALITY POLICY

The National Hospital, Abuja maintains Quality Management Systems to ensure excellent medical care. The Hospital is be governed by Act 36 of 1999 (or as may be amended) and comply in terms of Clinical Governance, structure, processes and patients outcome, with the requirements of the National Health Act, 2014, (or as may be amended).

VISION STATEMENT

To serve as an Apex Referral Hospital

The National Hospital Abuja is to serve as an Apex Referral Hospital of Medical Care in the West African sub-region for the specialized care of patients; curative and promotive health, research and the implementation of a holistic medical education programme for sustainable national and regional development.

MISSION STATEMENT

We are the flagship of the Medical Institution in Nigeria and endowed with sophistication and materials.

Our corporate objective is to provide a friendly atmosphere for the care of all discerning patients without discrimination.

We serve with empathy for the sick and devotion to duty.

Our services are prompt, courteous, comprehensive, efficient and effective.

Our strength lies in the use of state-of-the-art technology in a clean, conducive and patient friendly environment, using highly skilled and motivated staff.

CORE VALUES

- Integrity
- Diligence
- Empathy
- Excellence
- Loyalty

INFO BOX

MAIN SERVICE AREAS

Our main service points are:

1. **Dental and MFU Department:** The department offers dental surgery which entails the management of disease of the tooth and its structures, and maxillofacial surgery which is a reconstructive surgery of the oral cavity, face, head and neck following trauma, infection, tumours etc.

2. **Department of Anaesthesia intensive care:** The department is involved in the day to day provision of anaesthesia and analgesia for all surgical operations performed in the hospital. They also take charge of the intensive care unit where critically ill patients with single or multiple organ failure are monitored and treated.

3. **Department of Chemical Pathology:** This department provides quality clinical chemistry services to clients all over the nation using state-of-the-art technology'.

4. **Department of Family Medicine:** The department serves as the first contact point between the patient and the healthcare system and provides continuing, coordinated and comprehensive health care for all individuals in a holistic manner regardless of age, gender, and affected organ or system in the context of family and community.

5. **Department Histopathology:** The department serves as a reference centre providing full width histopathology and mortuary services for other hospitals. The departments focus are in the general areas of breast, prostate, cervical and colorectal pathology and pioneering immunohistochemistry.

6. **Department of In – Vitro Fertilizatior (IVF):** The department is dedicated to enhancing the reproductive potentials of a couple and ensuring comprehensive management for infertility.

7. **Department of Medical Microbiology:** The department provides diagnostic, therapeutic clinical, consultation, training and other supportive services in infectious diseases and related conditions.

8. **Department of Medical Physics:** The department makes use of ionizing radiation for diagnosis and treatment of cancer diseases.

9. **Department of Nuclear Medicine:** The department uses Atomic Energy to diagnose and treat diseases, and uses safe and non-invasive procedures to provide useful information on the physiological, biochemical and molecular processes of the body.

10. **Department of Obstetrics & Gynaecology:** The department caters for the needs of women and children to improve their health through innovative and compassionate care with the view of reducing morbidity and mortality.

11. **Department of Ophthalmology:** The department provides efficient medical and surgical Ophthalmic care and high quality optical services.

12. **Department of Otorhinolaryngology/ Head and Neck Surgery:** The department is responsible for the medical and surgical management of patients with diseases and disorders of the ears, nose, throat and related structures of the head and neck.

13. **Department of Physiotherapy:** The department achieves patients satisfaction, high quality of life through qualitative,

efficient and affordable physiotherapy/ rehabilitative services.

14. **Department of Radiology:** The department provides caring, compassionate and high quality medical imaging and image-guided therapy services to improve the quality of life for our patients and their families.

15. **Department of Radiotherapy and Oncology:** The department provides oncological care for patients and their families with empathy at an affordable cost and in a conducive environment.

16. **Department of Surgery:** The department is made up of multiple surgical subspecialties rendering both elective and emergency services across the field of general, neurosurgery, urological, cardio-thoracic, plastic and reconstructive surgery.

17. **Health Records Department:** The department is responsible for the creation, maintenance, keeping and retrieving of patients' records.

18. **Internal Medicine Department:** The department has since evolved and has been rendering full patient care and services.

19. **Library Services:** The department supports the informational needs of the medical professional and non-professionals of the hospital.

20. **Nursing Services Department:** The department provides safe, acceptable, effective and high quality health service to individuals, families and communities.

21. **Paediatrics Departments:** The department provides high quality healthcare services to infants, children and adolescents in a friendly atmosphere.

22. **Plastic Surgery Unit:** The department provides quality burns, plastic and reconstructive surgical care to all patients.

23. **Department of Dietetics:** The department provides holistic Medical Nutrition Therapy(MNT) to patients with special dietary needs thereby facilitating their speedy recovery from the illness.

24. **Department of Haematology:** The department delivers quality clinical/ laboratory services to their clients.

25. **Department of Orthopaedics:** The department offers specialist orthopaedics and trauma care to patients of all ages.

26. **Department of Pharmacy:** The department provides optimal medication therapy to all categories of patients in the hospital by ensuring that high quality and most effective pharmaceutical care and leadership in the medication use system is achieved.

27. **Department of Psychiatry:** The department offers specialist mental health care services in various fields of psychiatry to patients of all ages.

28. **National Trauma Centre:** The department offers specialist medical care in various fields of trauma to patients of all ages.

From The Editor's Desk

Medical Tourism is a term used to describe people travelling abroad to obtain medical treatment. It has been one of the fastest rising issues in the country as it has been recorded that 5,000 Nigerian travel abroad monthly to seek medical treatment.

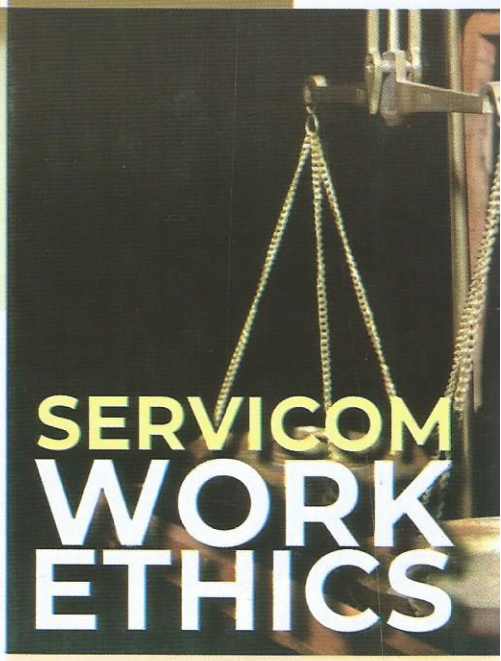
According to Price Waterhouse Coopers (2016) report, Nigerians spend $1 billion annually on medical tourism with 60% of it on four key specialities namely: Oncology, Orthopaedics, Nephrology and Cardiology. Another publication stated that according to National Association of Resident Doctors (NARD), Nigeria loses over N576 billion yearly to medical tourism. These are resources that can be better invested into the improvement of the country's health care facilities, remuneration of healthcare workers, adequate funding, improved medical research etc.

Nigeria has been blessed with a lot of experts and professionals in the various medical fields. Majority of the surgeries that Nigerians travel abroad to perform can all be carried out here in the country successfully, therefore, there should be no reason why medical tourism should continue to be a problem in the health sector.

National Hospital Abuja is one of the health care centres that is doing very well in showcasing the competence and expertise of the health care system in Nigeria. Surgeries such as knee replacement surgery, separation of conjoined twins, open heart surgery and IVF surgeries have been successfully carried out in the hospital. The hospital also has two linear accelerator machines for cancer treatments.

In this publication we are going to highlight some recorded achievements of National Hospital Abuja under the leadership of our able Chief Medical Director, Dr. J.A.F. Momoh who has been steering the affairs of the hospital for more than 7 years and the hospital has greatly witnessed a remarkable development.

Tayo Haastrup, Ph.D



SERVICOM WORK ETHICS

- No Officer will leave files unattended to for more than 48 hour
- No lateness to work
- Proper dressing and appearing responsible
- No loitering in the corridors
- Keep offices and toilets clean
- No closing before time
- Be guided by the concept of quality service delivery
- Always be on your seat
- Response to request from clients must be processed within (15) working days by schedule officers, or acknowledgements sent within 48 hours if the matter is complex
- All matters pertaining to ad-hoc and special assignments should be handled within the specified period
- Attend to customers/clients politely and specify time targets for attending to them
- Reasons for delays should be explained politely.

Nigeria Excelling in the Fight Against Covid-19 -

- Hon. Minister of Health, Dr. Osagie Ehanire

The Honourable Minister of Health, Dr. Osagie Ehanire has on Monday, 7th February, 2022 in Abuja, unveiled the Nigeria's health sector roadmap which was guided by the President's "Health Sector Next Level Agenda" of 2022. It is a nine point, medium-term plan, to ramp up the push towards Universal Health Coverage.

He enumerated the agenda to include: implementation of Mandatory Universal Health Insurance in collaboration with State governments and the FCT Administration; Operationalization of the Basic Health Care Provision Fund (BHCPF) in collaboration with partners and agencies; Recruitment and deployment of 50,000 Community Health Extension Workers; Revamping Federal Teaching Hospitals across the country; Collaboration with Private Sector Investors to establish high-quality hospitals in Nigeria; Reduction of gaps in all health-related SDGs by at least 60%; Reduction in the current imbalance between primary, secondary, and tertiary health care; Active, collaboration with the private sector to create a large number of well-paying jobs for Nigerian youths; and contribution to the realization of Mr. President's June 12 promise to take 100 million Nigerians out of poverty in the next 10 years.

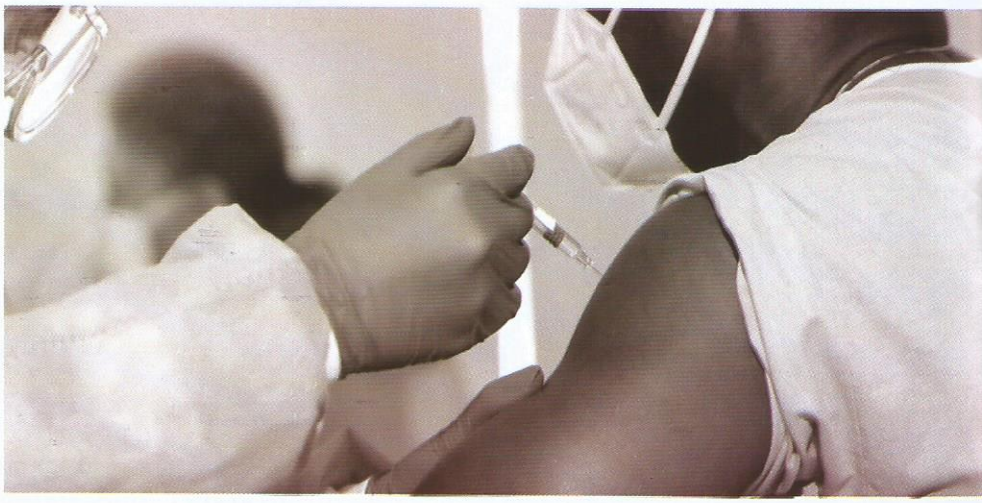
Giving the background, Dr. Ehanire claimed the position of the key Ministry of the Federal Government of Nigeria for Federal Ministry of Health as he said the Ministry plays an important role in President Buhari's Next Level Agenda for human capital development and for socio-economic growth. ***"Our Ministry is responsible for the National Health system and its performance, and provides strategic support to States, Local Government Areas, the private sector and Development Partners. It coordinates development of required Human Resources for Health and the infrastructure needed."*** The Minister also reeled out the achievement and challenges of the Ministry which was further highlighted by the Heads of Departments and Agencies of the Ministry who took turns to make

presentation as it concerns the roadmap to the Health sector Development, going forward.

Dr. Ehanire noted that the COVID-19 pandemic has brought attention to the Health Systems of all countries like never before. "Respected and otherwise resilient systems have been nearly brought to their knees by the sheer volume of patients they have to be catered to, and some have had to face embarrassing scarcity of simple items like face masks or sanitizers. All countries will no doubt be re-examining their Health systems which is why it has been said that the COVID-19 outbreak offers an opportunity to restructure, or even rebuild health systems."

He pointed out that even though Nigeria's health system has not fared so badly so far in the global COVID-19 outbreak, "but we nonetheless have good reason to also examine our not-so-strong Health system, which is why we are here gathered today with Stakeholders, Partners, Donors, Civil Society, Academia, well-wishers and the media. He also reassured that ***"despite disruptions by the COVID-19 pandemic, progress has been made on all points."***

Dr. Ehanire added that COVID-19 itself emphasized the need and provided opportunity to strengthen our health System and assure better coordination among the component institutions and along all tiers of Government, as well as chances to improve synergy with partners, Civil Society Organizations and other stakeholders.



The Minister of State for Health, in his closing remarks stated that the meeting was borne out of an urgent need to review the performance of the Health Sector not only to ensure that "we are on the right track to achieve our set goals and objectives, but also to identify weaknesses, gaps, disruption and quickly save the sector while improving on our successes. He added that it is an opportunity to render account to Nigerians on how the Health Sector has fared so far in delivering its mandate in line with Mr. President's vision. He assured Nigerians that "we will not rest on our oars until we achieve quality and affordable health care for all.

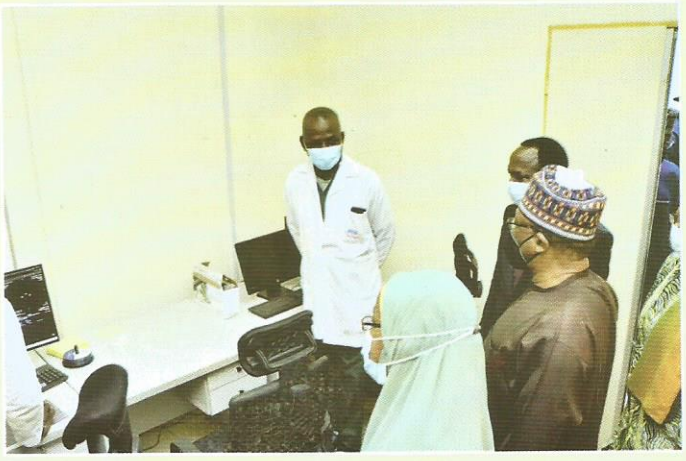
While commending all the Stakeholders especially the Media for their commitment and support in driving the agenda, Dr. Mamora enjoined everyone to collaborate, partner and join hands with the Ministry in moving the Health Sector forward as according to him, health services is not a "solo event but team event."

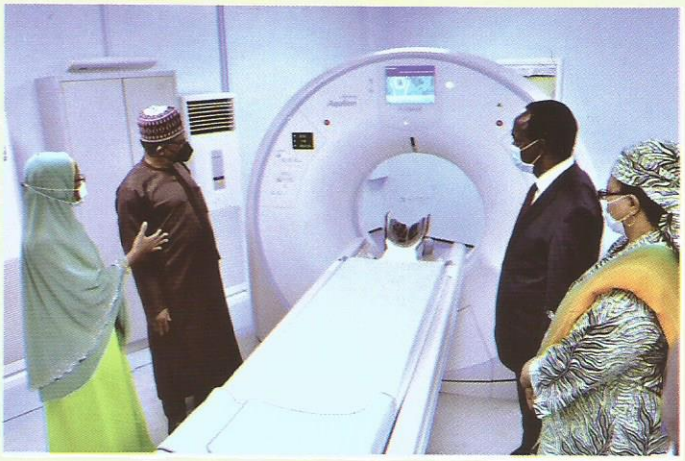
In his opening remarks, the Permanent Secretary, Health, Mr. Abdulaziz Mashi Abdullahi informed that the event was for the media and other stakeholders to get the chance to seek clarifications, support and contribute towards a Greater Health Sector 2022 and also provides the opportunity to begin the roll-out of the road map so that Nigerians will fully participate in supporting its successful implementation.

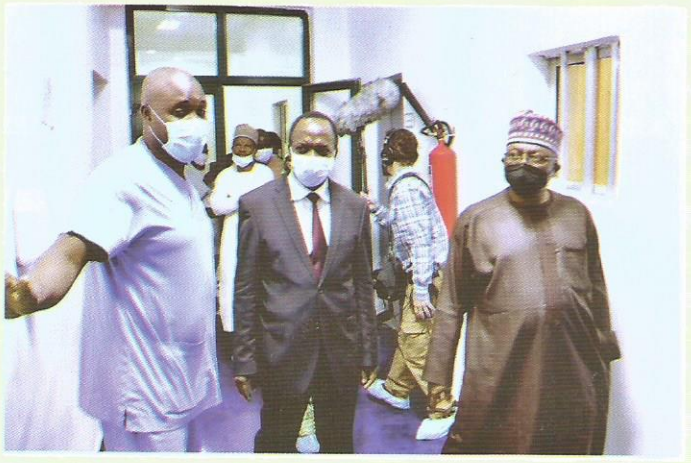
Highlights of the event include the unveiling of the revised Basic Health Care Provision Fund (BHCPF) implementation guideline. The National Health Act (2014) established the BHCPF as one of the key drivers to attaining equitable health for all in Nigeria. Under the administration of President Muhammadu Buhari, the BHCPF implementation began with the appropriation and release of at least one percent of the Consolidated Revenue Fund as provided by the Act. This has set in motion the mechanism to fast track achieving UHC for all.

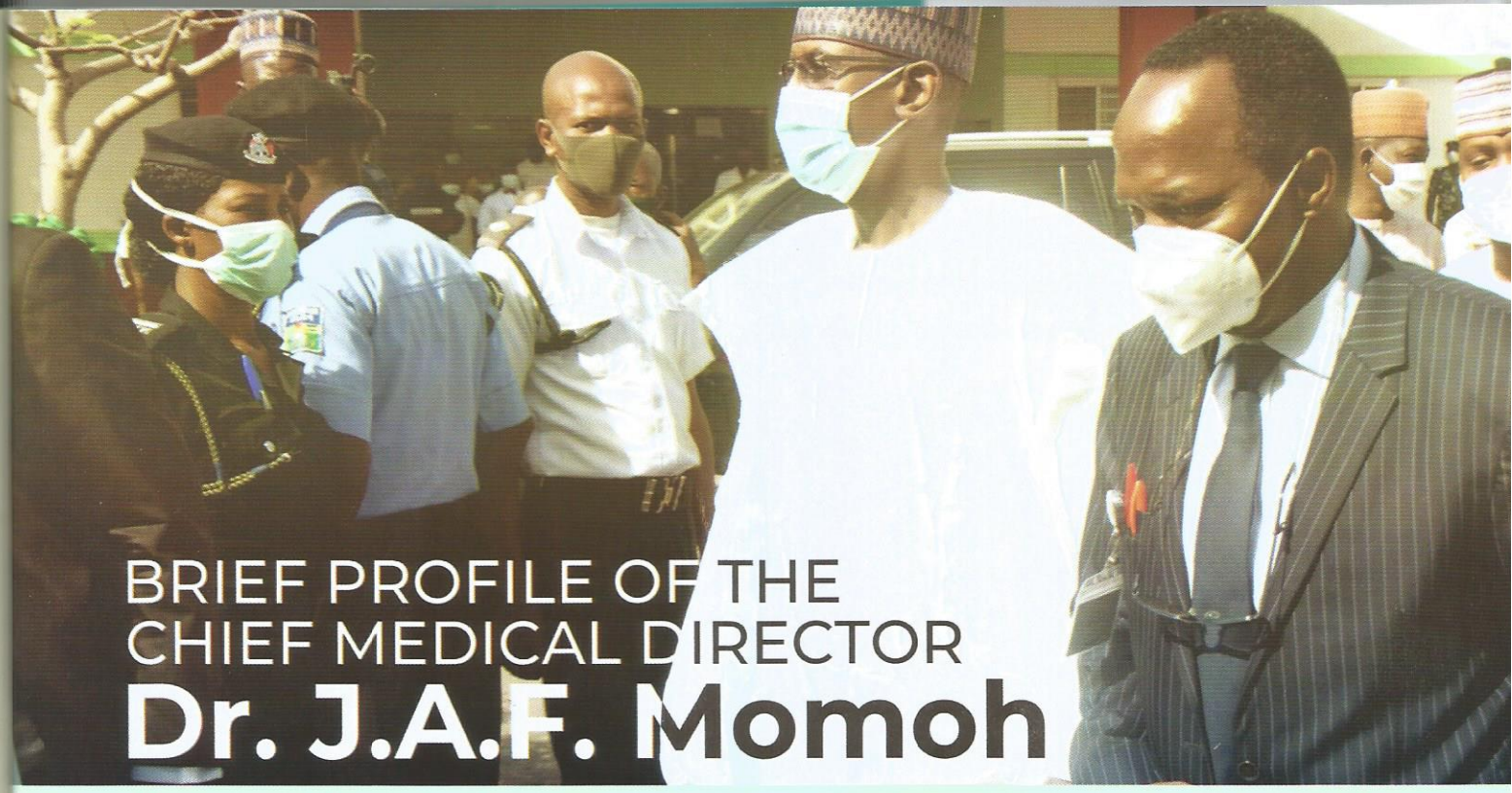
Dignitaries at the event include:- Chairman, Committee on Health, Dr. Ibrahim Oloriegbe, Country Representatives of WHO and UNICEF as well as Members of the Civil Society Organization, represented by Prof. Ladipo Oladapo and a host of Media personalities.

Hon. Minister of Health, Dr. Osagie Ehanire recent visit to National Hospital Abuja









BRIEF PROFILE OF THE CHIEF MEDICAL DIRECTOR
Dr. J.A.F. Momoh

Born in Edo State, Nigeria on February 27th 1960, Dr. Jafaru A. Momoh attended St. Peter's College in Agenebode, Edo State, Where he finished with Division One, as best graduating student in June 1977.

He proceeded to the University of Benin to study Medicine where he graduated in 1985. He worked as one of the pioneer Medical Officers in the Federal Capital Territory (FCTA) Health department after his National Youth Service from 1987 to 1992 before proceeding to Lagos University Teaching Hospital for Residency Training in Chemical Pathology.

He obtained the scholarship of the National Postgraduate Medical College in 1994 as the best overall Associate fellow at the Part I examinations in Pathology.

He subsequently proceeded to the United Kingdom as a research scholar at the Centre for Reproductive Medicine, Royal infirmary, Edinburg. He completed his Postgraduate training in 1997 and returned to the service at the FCTA. He transferred his service to the National Hospital in April 2000.

At the National Hospital he held various positions of responsibilities including being Head of Chemical Pathology department for more than 12 years. His department which has remained one of the most economic/business efficient specialty and recorded the highest score in a Quality Management rating by external assessors. It was the first department to fully computerized and automated. He developed a computerized inventory and stock programme for the department that has greatly increased the efficiency of service delivery in the department and also, successfully enrolled the department in an International External Quality Assessment Scheme, the UK NEQAS sponsored by the International Federation of Clinical Chemistry and Laboratory Medicine.

He was also, a community leader as Chairman of the Medical and Dental Consultants Association of Nigeria (MDCAN) and the President of National Hospital Multipurpose Cooperative Limited for two and three years respectively, with significant achievements.

He has been involved in training Resident Doctors and has jointly supervised Research projects across five departments; Chemical Pathology, Internal Medicine, Oncology, Paediatrics and Obstetrics and Gynaecology. Some of these Resident Doctors including two in his Department have qualified as specialist Fellows and have been appointed Consultants.

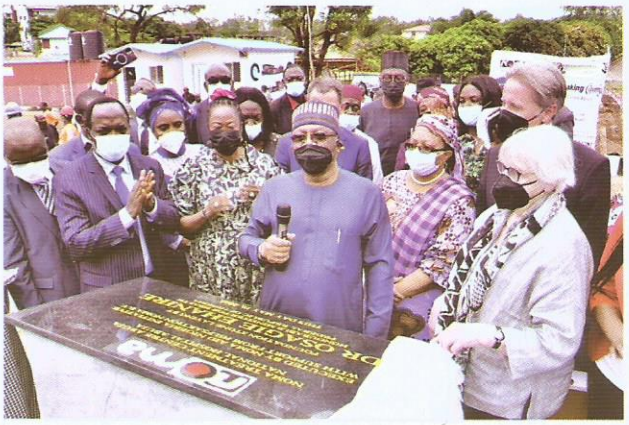
He has received several management training including training in Quality Management Systems.

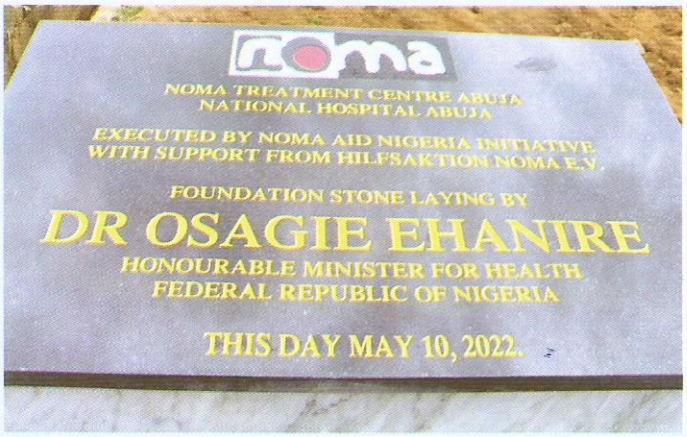
He has served in various Management positions at the National Hospital, including Deputy Chairman Medical Advisory Committee, Chairman Medical Advisory Committee and Director of Clinical Services before his appointment as Chief Medical Director in 2014. His appointment was renewed in 2018. He was the Vice Chairman and later became the Chairman of Committee of Chief Medical Directors of Federal Tertiary Hospitals.

Dr Momoh, is married to Dr Folasade and they are blessed with Children.

STONE LAYING OF NOMA TREATMENT CENTRE NATIONAL HOSPITAL ABUJA.

EXECUTED BY NOMA AID NIGERIA INITIATIVE WITH THE SUPPORT FROM HILFSAKTION NOMA E.V.





Milestone Achievements of Dr. J.A.F. Momoh-CMD At National Hospital Abuja

Since the appointment of Dr. Jafaru Alunua Momoh as chief medical Director, CMD of the National Hospital, Abuja 7 years ago, great milestones have been recorded in the institution some of which are summarized below.

1. Computerisation and Deployment of the Hospital Information Management System (HMIS)

In its desire to run an efficient and effective service delivery, the hospital management led by Dr. J.A.F. Momoh embarked on the computerization of the hospital services. It is also completed projects inherited form the previous administrations and those initiated by it resulting in the expansion of the hospital's bed capacity and capacity for service delivery. One of the rampant problems in the hospital was that of missing case notes and folders which the process of computerization has put to a stop. The purpose is to ensure that patient's experience at the point of care is better.

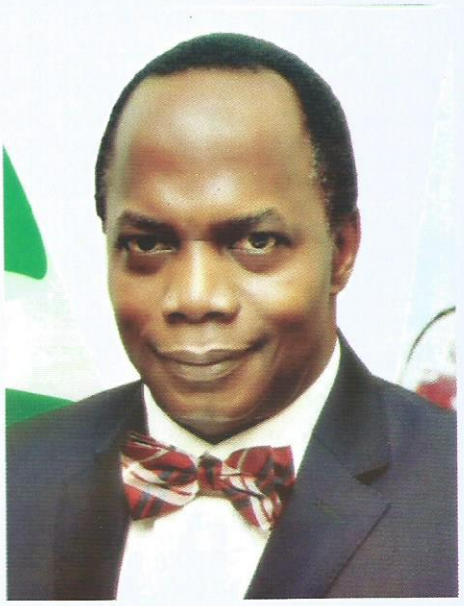
2. Hospital Expansion/Increased Bed Space

In terms of expansion of the hospital management has put to use completed projects like the Trauma Centre and the ward cluster "C" to make sure that services are not wasted and the money invested by government on behalf of Nigerians is well utilized.

Consequently, the hospital has now about 400 bed spaces from 220 bed at the inception. This is one of the most important achievements in terms of infrastructural enhancement. The Radiotherapy Centre for treatment of cancer was completed, equipment fully installed and new equipment procured and installed. The radiotherapy centre became the first to be functional in 2018 among the modern radiotherapy centre in the country and one of the best in both West Africa sub-region and the Sub-Saharan Africa. Also, comparatively in terms of pricing, the cost is 20 percent less than the price any patient would pay for radiotherapy in say Egypt or South Africa which are the only places you could really compare in terms of government facility treating cancer in Africa.

3. Training and Re-training programmes

The hospital has expanded its



training programme especially the postgraduate traing programme for doctors, nurses and other staff. Principally, in the nursing area the Post Basic School of Nursing for Oncology (study of cancer) became the first to be fully accredited in the whole of West Africa and this facility now train post graduate nurses for care of cancer patients. Also, the nephrology post basic nursing school last year got full accreditation from the Nursing and Midwifery Council of Nigeria. For the postgraduate training for doctors 15 departments are fully accredited and about 8 sub specialty

programmes in various departments also fully accredited.

These include: sub-specialty accreditation in neurosurgery, neurology, orthopaedic surgery, dermatology and nephrology.

There is also accreditation for bigger departments like obstetrics and gynaecology, Paediatrics, surgery, medicine, pathology etc.

National hospital is also accredited for post fellowship training in trauma by the West African college of surgeons the only centre in West Africa sub-region to train surgeons in trauma care. In addition, in the last three years it has served as the examination centre for the West African College of Physicians across all the specialties and the training is on-going. Being an examination centre means that people can come in from West African sub region and take the intermediate examination and the final examination at the National Hospital. Also, the West African College of surgeons has been using the National Hospital as an examination centre for their part one and the final Fellowship examinations. It recorded almost 100 percent pas in the exams that it concluded for the West African College of physicians last month.

4. Other Milestones

The hospital is collaborating with a German based NGO on the establishment of a facility for dental facial care for children with a particular disease called "noma" that's a colloquial name for a disease that affects the jaw in childhood and is the West African sub- region. Recently, the hospital management completed a brand new intensive care unit on a molecular laboratory, courtesy of the intervention of the Federal Government during the COVID 19 second wave and that is already up and running. It is an ultra modern Intensive Care Unit with state of the art equipment that can meet any standard anywhere in the world.

5. Introduction of e-payment and Electronic Medical Records

National hospital has introduced the e-payment and electronic medical record (EMR), these have really helped in simplifying all payment procedures and keeping information about patients confidential. The system also helps in curbing corrupt practices. With the introduction of the EMR, there's no issue of missing case notes because patient's record are not computerized and is retrieved electronically and the patients are happy about it.

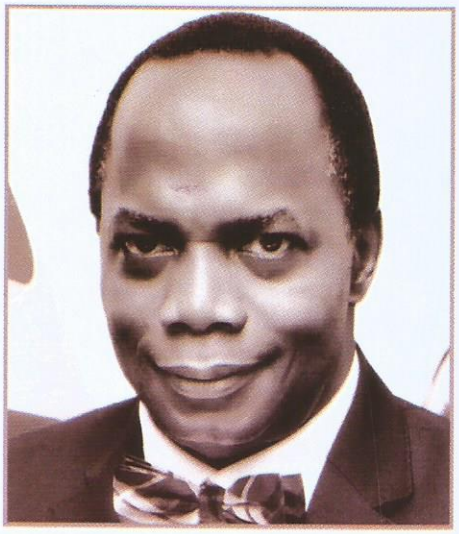
6. Timed Appointment System

To improve efficiency and effectiveness of patient handling the hospital management introduced what it called "Timed Appointment System" of booking for patients. Short messages (SMS) are used through the bulk SMS to remind visiting patients about their appointments in the various clinics of the hospital. The service has now been extended to cover most routine clinics and it has tremendously reduced overcrowding and long hours of waiting.

> *"Post Basic School of Nursing for Oncology (study of cancer) became the first to be fully accredited in the whole of West Africa"*

7. Staff Welfare

At the National Hospital Abuja, staff welfare is top on the agenda. Through regular payment of salaries, regular promotion and training hospital staff are motivated to put in their best because it is a well known fact in the industry that once staff are well motivated their attitude to take care of the patients will improve and patients will benefit from that. Recently, staff conditions of service were reviewed upwards. In 2019 when the hospital



celebrated its 20th anniversary, many of the staff received awards. This included some of the past leaders.

8. Specialized Services

The hospital has tailored its services to meet the needs of various clients. There are those that are fee paying (among them are the VIPs), those on retainership mostly corporate organizations, those on National Health Insurance (NHIS), and indigent patients all of whom are accommodated in the hospital. The hospital's executive wing was recently upgraded to make sure VIP's continue to use the hospital. This has reversed medical tourism in terms of cancer care, in terms of IVF, in terms of some of the surgeries and diagnostic procedures that are done in the hospital.

Management also introduced what is called intramural practice such that if you're coming for a routine procedure, the service is delivered to you at your convenience and in an environment that is conducive for you and you pay. Because it's premium service the rate is not subsidized at all. On the other hand, there are patients who pay what is called 'subsidized rate', which is the normal fees; normal bed fees, normal drug fees, normal surgery fees, which is like fifty percent of what a patient would get in a private hospital with services close to the NHIS standard. But in all of these, it is the same quality service all the patients receive.

MILESTONES IN CANCER CARE

National Hospital Abuja has over the years recorded monumental achievements in health care delivery. This is made possible by the ever unflinching support its management team and Governing Board have received from the Federal Government.

Indeed, under the present administration of President Muhammadu Buhari, the hospital has acquired an additional functional Linear Accelerator for radiotherapy and modern brachytherapy equipment.

Part of the milestones achieved in this area include: Successful training of resident doctors in 3D conformal radiotherapy using the two modern Linear Accelerator, setting up a modern Chemotherapy suit and oncology pharmaceutical suit for care of cancer patients, gradual and steady training of Therapy Radiographers who now treat our cancer patients using state of the art treatment techniques.

The hospital management led by Chief Medical Director of the hospital, Dr. Jafaru Momoh, has recently ensured the movement of oncology clinic to the Radiation and Oncology Centre close to the Radiotherapy Centre; to take care of the teeming population of the cancer patients in the country.

The Management is tirelessly and evidently making frantic efforts to ensure that cancer patients receive treatments timely and at affordable rates.

RADIOTHERAPY CENTRE

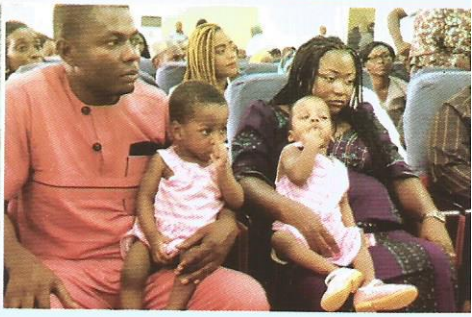
The Commissioning of a Radiotherapy Centre in the hospital is a major breakthrough in the commencement of modern treatment for cancer patients in Nigeria. The centre which was commissioned on December 1st, 2017, has state-of-the-art Radiotherapy Machine, the Multileaf Linear Accelerator (LINAC) the first of its kind in Nigeria with CT Simulator and a treatment planning system.
This facility has already treated several cancer patients.

A second LINAC was delivered to National Hospital in February, 2018 courtesy of the Federal Ministry of Health and FGN joint venture partner in the oil industry, Shell Nigeria Exploration and production Company Limited (SNEPCo). The first phase of the installation of this equipment has been completed successfully, while the second phase is currently on-going preparatory to commissioning and usage.

The management of National Hospital Abuja has also equipped the new Oncology Centre of Excellence with a lot of human and material resources to ensure that patients receive oncology care in a conducive atmosphere. The complex has oncology clinic ward and other service points. It is also the permanent site of the first and the only accredited School of Post Basic Oncology Nursing in the whole of West African sub region.

Other major breakthroughs are in the area of surgery where the hospital recorded successes in knee replacement, open heart surgeries and separation of conjoined twins.

Successful separation of conjoined twins



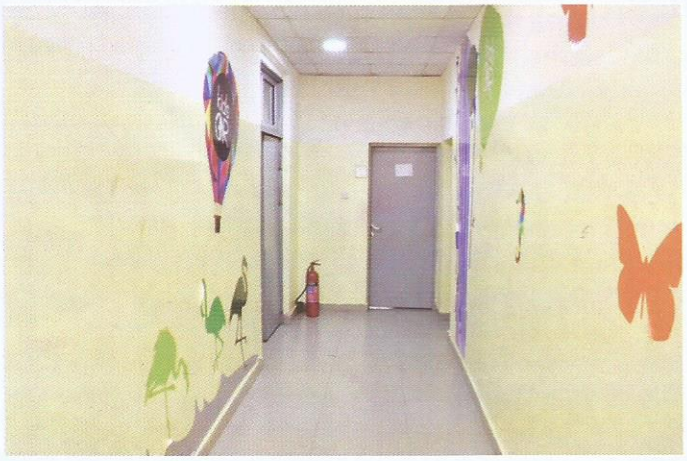
Successful separation of conjoined twins in the year 2020 was also a great achievement.

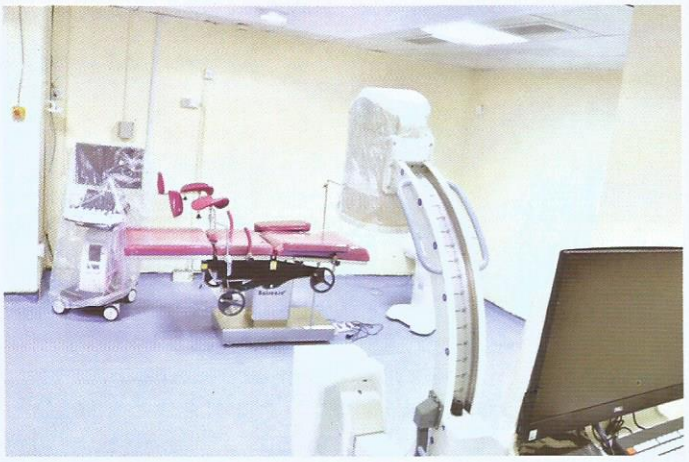
Goodness and Mercy were received conjoined at the thorax and abdomen and combined weighted five kg. Major activities done prior to surgery included infection control, feeding, fluid therapy, immunization, monitoring growth and development and controlling crowd.

National Hospital Abuja has funded the care and the entire process leading to and the major surgical procedure for the separation based on the assessment of the parents status and classification as indigent. The Hospital ensured that lack of fund did not stop the girls from having an opportunity to enjoy their lives independently.

Interestingly, the team that worked on this surgery were all Nigerians. It was done in Nigeria and the parents didn't have to go outside the country.

The New Children Operating Room (kidsOR) National Hospital Abuja





ISN PRODUCTS NIGERIA LTD

ISN Products Nigeria LTD has been in the forefront of medical diagnostic products marketing in Nigeria. The Company started business in 1981 with the sole purpose of handling the marketing and distribution of products from Boehringer Mannheim GmbH (now Roche Diagnostics) in Nigeria. We have been on this for three decades.

The Roche Diagnostics products marketed in Nigeria include:

- **Blood and urine chemistry systems**
- **Urinalysis test strips**
- **Dry and Wet kits for Clinical Chemistry parameters,**
- **Blood Gas Analysers**
- **Diabetes Management systems**
- **Immunology test systems**
- **Molecular Diagnostics**
- **Ventana Immuno Histochemistry Products and Tissue Diagnostics**

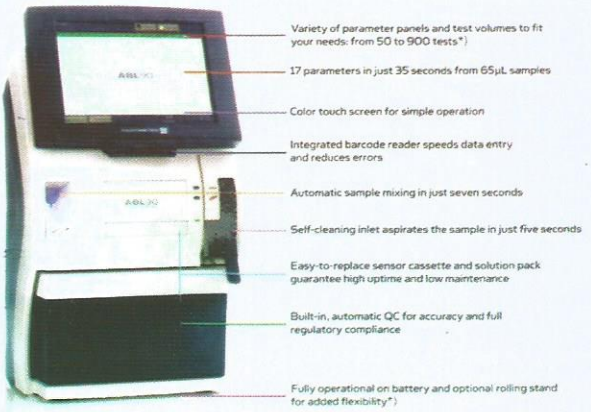
Boehringer Mannheim GmbH was a household name as a world leader in laboratory medicine. They were the early pioneers of urine strips for urinalysis and packaged kits for wet chemistry. In acquiring Boehringer Mannheim worldwide in 1998, Roche Diagnostics Deutschland GmbH became the new world leader in Diagnostics.

Cobas C311 Clinical Chemistry and Cobas e411 Immunology Autoanalyser

Cobas C111 Clinical Cheministry Autoanalyser

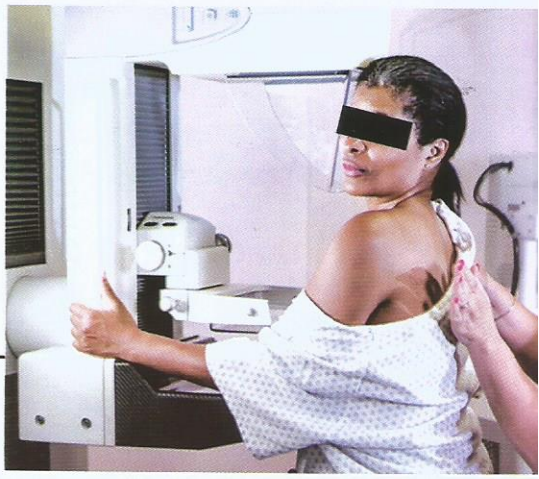
Minrdray BC-6800 Haematology Autoanalyser

ABL90 FLEX ANALYZER (Radiometer)
Blood Gas and Electrolyte Analyser



Since the inception of National Hospital in 1999, ISN has been the traditional suppliers of Clinical Chemistry and Immunology systems and reagents to the Chemical Pathology Dept. With the acquisition of Roche Ventana System, ISN is also the traditional suppliers of all Immunohistochemistry systems and reagents to the Morbid Anatomy Dept of National Hospital. Microbiology Dept. of National Hospital is now in the forefront of Tertiary Health Institutions in the Country performing Hepatitis viral load tests, with the acquisition of Roche Cobas Ampliprep and Roche Cobas Taqman (CAP-CTM). Hepatitis Viral load is now performed with ease and at an affordable and subsidized rate.

The Role of Mammography in the Management of Breast Cancer



Dr. Aisha Umar - Chief Consultant, Radiologist CMAC
National Hospital Abuja

Breast cancer is a life threatening condition for which early detection remains the only defence. Early detection has been increased by the introduction of screening methods which include mammography. As a result of the introduction of screening and optimizing treatments, deaths from breast cancer have decreased by approximately 1/3 over the last 2 decades.

Mammography service is available at National Hospital and this service can be provided 5 days a week on request without booking. The services are provided by experts, with some having over 20 years experience. Since inception, this service has been available in National Hospital Abuja in 2000 and many lives have been saved through screening programme that had detected lesion in women that did not have symptoms as well as diagnosis in those with symptoms. Follow up service has also been provided in women as requested by their doctors.

Currently, this service is available for both enrollees on National Health Insurance Scheme, and those who are provided on fee for service basis.

Mammography is the primary breast imaging modality. Its major role is in breast cancer screening. Other indications are referred to as diagnostic and they include evaluation of patients with symptomatic breast diseases, search of the occult primary cancer, preoperative evaluation and for follow up of patients with breast cancer.

A number of risk factors for breast cancer have been identified and these include:-
Hereditary, Lower age of menarche, Late age of first pregnancy, Fewer pregnancies, later menopause and shorter or no periods of breastfeeding. Other like obesity and hormonal replacement therapy had also been implicated.

> **"Other indications are referred to as diagnostic and they include evaluation of patients with symptomatic breast diseases"**

Various guidelines for screening of women for breast cancer are available with consideration of the benefits and harm of screening as well as the cost being considered for women at high risk of breast cancer, the ACR (America College of Radiology) and America Cancer Society guideline advocates mammography screening beginning at age 25 - 30 years, or 10 years before age of first degree relative with breast cancer of 8 years after radiation therapy. These are complemented with pre and post contrast Magnetic Resonance Imaging (MRI) intermediate risk women will have only mammography done with clinical examination.

The average age of screening for average risk women is from 40 years of age.

In National Hospital, screening is advised as part of medical examination for women of 40 years and above. After the initial screening, follow up is advised every 5 years until they are 50 years old. Thereafter every 2 years until they are 60 years and at 70 years annual screening is advised.

This applies only when the result is normal. If the result is abnormal, then referral is made to the managing physicians immediately. However, for women with a positive family history, where their mothers, aunty, grandmother, have had breast cancer before, they are advised to start screening at the age of 30 years.

Mammography is a special type of low dose X-ray imaging used to create detailed images of the breast. It is the best available population based method to detect breast cancer and most often it reveals a lesion before it is palpable by ***Clinical Breast Examination.***

It can be used to screen asymptomatic women (screening) or to diagnose symptomatic patients (diagnostic).

Mammography densities pattern is a reflection of the relative proportion of radiolucent fat to radio-dense glandular epithelium and connective tissue. This is a known independent risk factor for developing breast cancer and can be used to predict who will develop breast cancer. Four densities are usually identified from fatty (i) to dense glandular breast (iv).

Certain features seen on a mammogram can give pointers on the nature of the lesion as to whether it is benign or malignant. Benign masses are often round and large calcifications. Also the presence of very low density fat in lesions often indicates that such lesions are benign. Malignant lesions on the other hand tend to have irregular, indistinct or speculated margins with the presence of macrocalcifications.

A system of reporting called BI-RADS (Breast Imaging reporting data system) is what is presently used in the description of breast lesions on mammography, and it serves as a guide in breast cancer diagnostic routine. The classification has categories 0 - 6 Mammography plays a role not only in screening but also in detection, follow up and post treatment plans. The detection and follow up plans will include assessing the size of lesion, the number of lesions present, extent of the disease/spread. Digital breast tomosyntheis (3D mammography) is an advancement over digital mammography with higher cancer detection rate.

A number of limitations have been identified with this imaging modality. These include:.
Its sensitivity and specificity which are still low and hence not ideal, its dependence on breast density for accurate interpretation of images, and use of ionizing radiation. However, the benefits of this imaging modality far outweigh the risks.

The challenges to WHO in developing countries include: poor coverage and lack of basic cancer diagnosis and treatment resources. In Nigeria, there are only 7 centres for treatment of breast cancer with radiotherapy. National Hospital has recently commissioned a new LINAC (Linear Accelerator) that can be used in the treatment of breast cancer. This brings to 2 the number of LINAC available at the National Hospital.

Way Forward

Early diagnosis, promotion of awareness of early signs and symptoms among the public, education of first line health professionals and improved referral procedures to facilitate prompt and adequate diagnosis and treatment of breast cancer in early stages.

Conclusion

Mammography is the only method of screening for breast cancer shown to decrease mortality. Annual screening mammography is recommended to start at 40 for the general population.

Other imaging modalities compliment but do not generally replace mammography. Digital mammography and digital breast tomosynthesis have further improved the technical capacities of mammography.

Reliving the Experience of Dr. Cyprian Ngong, the first Nigerian who took the Covid-19 Vaccine jab

QUESTION: Sir, can we meet you?

DR CYPRIAN: I am Doctor Cyprian Ngong, a locum consultant family physician in National Hospital Abuja and also a frontline worker of the COVID unit of the hospital.

QUESTION: As the first Nigerian to receive COVID 19 vaccine in Nigeria. Please can you tell us about your experience?

DR CYPRIAN: I think I was very much privileged to be the first to take the vaccine. When we started our voluntary work in the COVID 19 centre, the awareness was not much because it was a new disease and there was a lot of fear but I was aware that most viral disease are likely to have a vaccine, and the vaccine developing took a very short while so most people of course will be hesitant. We also know the way scientific vaccine are produced and of course they will not cut corners. I also had colleagues in the UK and USA who had taken the shot long before the vaccine ever came to our shore. So when it came I was very ready to take it. I actually lost my dad to COVID maybe if the vaccine was available before then he could have taken the vaccine and probably survived it. Eventually when the time came for the vaccine I was privileged to be chosen as one of the healthcare front liners to take the vaccine and I was also opportune to be the first person to take the vaccine in Nigeria.

In terms of side effect, I didn't have much, aside the fact that I was stressed because it was just about the time of my dad's burial. Then I took the second shot and experienced some mild pain and in December, I took a booster dose as well. I think it is been worthwhile because my patients that saw me said they also took just because they saw me taking and that created more like a trend and everyone was taking the vaccine. And so far we didn't get much negative result of what most people were afraid of. And I think it must have also helped in convincing the general public that if our own doctors are taking the vaccines, then healthcare workers are not just asking them to come and take the vaccine but are actually practising what they preach so I encourage everyone to go ahead and take the vaccine.

QUESTION: Thank you very much Sir, please do you have any call to the government in relation to the covid 19 and its variants?

DR CYPRIAN: We never can say we have done totally enough but I believe the government has done quite well in the response to COVID. I remember in those days that the frontline workers had to stay in the hotel see their patient for a whole week, stay back for another one week before going back home. The issue now is sustenance because we have reached a stage at which some people have taken the vaccine and some are still hesitant. With other variants of the COVID 19, the Omicron is there, therefore we need to continue reaching out to the world encouraging people to take the vaccine. I think for now it is just about 8 million Nigerians that are fully vaccinated while we have about 20 million that have taken at least one shot, so we are still far short of our 70% population target. Therefore, what we need now is the sustenance to continue because as the world politics is changing people are talking about Ukraine now but we know COVID is still there in the background. Cases maybe fewer but it comes in waves so we have to be ready at whatever time before those waves come up. We should be able to tackle and we should also sustain our Isolation centres, sustain the non-pharmacological methods of prevention so that everybody will continue adopting them.

> *"We lost more patients who have not been vaccinated totally than those who are vaccinated"*

QUESTION: Sir are you implying that people should still be observing necessary protective measures because people are thinking all these variants like the omicron are not as strong as COVID 19 or things like that. Please can you shed light on that?

DR CYPRIAN: We need to be very careful in making a general statement because a common man out there will not know the kind of variant he will be affected by. It may still be the delta variant which is still there. The omicron yes from clinical practice, we have seen that it is a bit milder and the case fatality rate is not as high, but we can't say for sure that this person is going to be affected by the omicron, delta or any variant and we don't know, maybe another mutation will come up and will get other variant that will be of more concerned than omicron. A more dangerous variant might come up because these viruses still mutate so the best bet is for people to take the vaccine and continue the pharmacological methods of prevention.

Cont on page 22

Harmful Effects of Using Headphones & Earphones

The Scientific World

Earphones were invented for the first time in 1980 AD; With the aim of giving individuals the freedom to listen to their favorite music anywhere and at any time without disturbing others.

Headphones have met with great demand among young people, adolescents, and children, so they use them excessively and at the highest levels of sound, but they are not aware of the great risks that earphones cause them, so in this article we will mention the side effects of using headphones for long time.

Headphones can damage the ears if used for a long time at high volume, and they can lead to partial and complete hearing loss. Here, we have mentioned some harmful effects of prolonged use of headphones.

Harmful effects of prolonged use of headphones

Handsfree earphones are frequently used to listen to music on public transport or talk on the phone, but studies have shown that the danger of headphones exceeds what some might imagine.

Headphones can damage the ears if used for a long time at high volume, and they can lead to partial and complete hearing loss.

The danger of headphones and their long use exceeds the dangers of hearing and ear infections, and may even harm the brain and brain functions as well, and this habit is spread all over the world a lot.

Neurologists recommend avoiding them, or at the very least, reducing their use, and using them only at the necessary times and here are some of the most important risks that headphones pose.

Some shocking side effects of using earphones for a long time are:

Headphones amplify the sound, so they pose a great danger to the ear, because the sound filter is very close to the sensitive structure of the inner ear, and thus increases the likelihood of hearing loss, as exposure to a high level of sound vibrations for a long time causes hearing loss.

The high-energy sound waves kill hair cells in the inner ear, and also cause hearing problems and ringing in the ear.

Eustachian tube dysfuction: Eustachian tube dysfunction is defined as pressure abnormalities in the middle ear resulting in symptoms such as ears popping, aural fullness, ear pain, tinnitus, autophony, muffled hearing, etc. The sound strength, and its intensity of up to 85 dB, leads to eustachian tube dysfuction, especially with the prolonged use of headphones.

Turbulence: The headphones generate a sense of turmoil in their users, because they separate him from the surrounding noises, sounds, and especially in public places, and thus his life is in great danger.

Ear infections: In the ear there is wax to protect the ear, and on this wax many types of bacteria and fungi gather, in normal conditions the amount of these bacteria does not increase in a way that harms the ear and makes it vulnerable to infections, but the danger of the earphones comes because of their frequent use and closing of the ear hole, which raises the temperature of the inner ear, especially with the strength of sound vibrations, and the high level of humidity inside the ear, and this environment is very suitable for the growth of bacteria and fungi, which exposes the ear to infections.

Infection with some types of ear bacteria, due to the exchange of use of headphones between individuals, hence the earphones are classified as personal items that are not desirable to share.

Infection with microbes and germs, as a result of neglecting to clean and sterilize the headphones continuously, so it is advised to sterilize the headphones with a cotton swab moistened with Dettol, or medical alcohol to ensure that they are sterilized and disinfected from microbes and pathogens.

Headphones affect the brain negatively, because the sound waves and vibrations entering the ear affect the arrival of sound signals to the brain, and thus the body loses its ability to send sound signals to the brain, and this means that the headphones cause a disorder in the ear nerve.

Tips for Using Earphones

Well-known brand headphones are preferred; To ensure their quality and efficiency, and to prevent the dangers arising from harmful sound frequencies emanating from the ears from poor headphones.

Avoid using headphones during exercise, in order to protect the body, especially the ears, from great dangers. During exercise, blood flows a lot to each of the lungs, muscles, and heart, while the blood flow in both ears is minimal, and thus the possibility of complete or partial hearing loss, or ears exposure to sensitivity. The brain is also very busy giving orders to the muscles, and listening through headphones distracts the brain, and thus the possibility of sports injuries increases.

The use of headphones should be reduced, due to their danger to the ear and brain.

Reliving the Experience of Doctor Cyprian Ngong, the first Nigerian who took the Covid-19 Vaccine jab

We have seen clearly from our patients in the isolation centre that our patients that are vaccinated tend to have a milder course of illness. We lost more patients who have not been vaccinated totally than those who are vaccinated and we also advise pharmacological method of prevention for those that are vaccinated because we know that those that are vaccinated can still contact milder form of the disease and transmit to the ones that are not vaccinated and that person will get a severe disease. So we advise people to continue with the hand sanitising, social distancing and use of face mask. These should be sustained until at least we have that immunity that we are targeting with the vaccine.

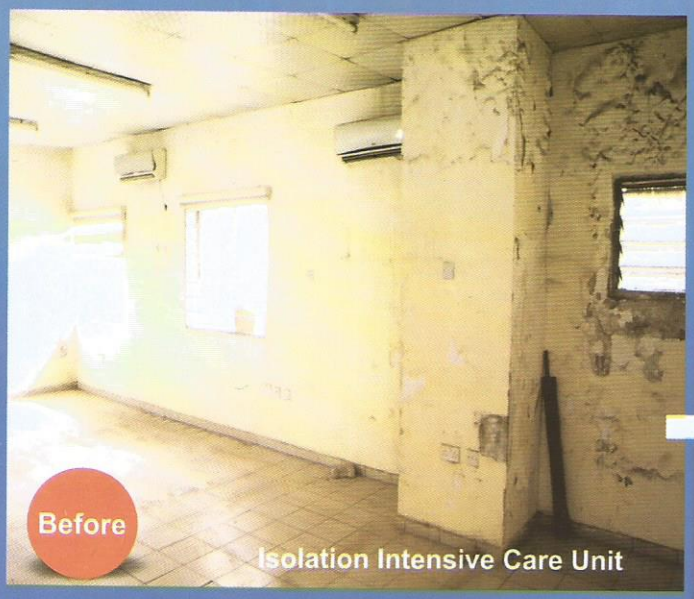
QUESTION: Lastly Sir, can you tell us how National Hospital has been handling COVID in respect to the isolation ward in place and do you think the hospital is ready in case there is any other outbreak?

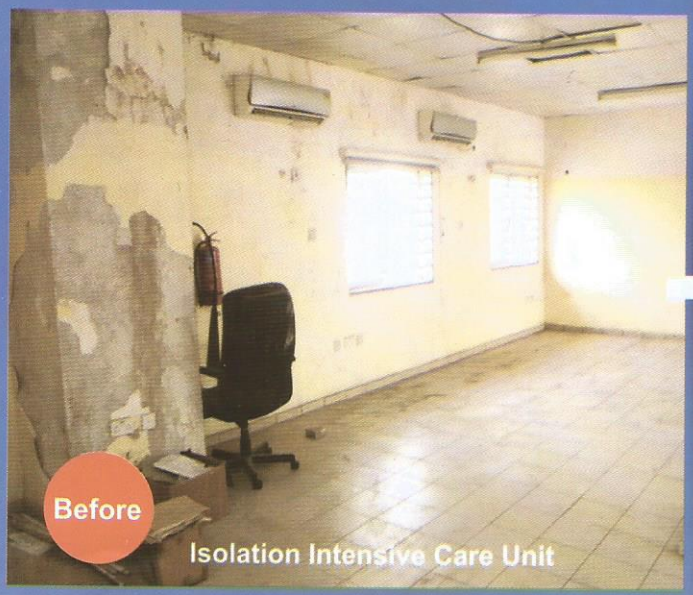
DR CYPRIAN: Our hospital is more than capable of handling such cases and the isolation centre has been well maintained even when we don't have cases for 3 weeks, there is a doctor on call, the nurses are always on ground. You know we also handle cases like Lassa fever and other cases that can be of epidemic concern so we make sure there is a protocol always in place as a patient comes either from A & E, the doctor there knows what to do if he suspects COVID and the facility for managing it itself are well available. With simple kit for testing right there in the Accident and Emergency or GOPD we can make that diagnosis very easily and isolation centre is always there, there is a doctor on call 24 hrs. So we have not actually said we are out of the woods. We are always ready. The isolation team are always on ground so I am not worried if there is another wave because we have not abandoned COVID, we still have seminars, we still have talks we still make sure everything is on ground to handle any case that comes

Transformation of National Hospital, Abuja

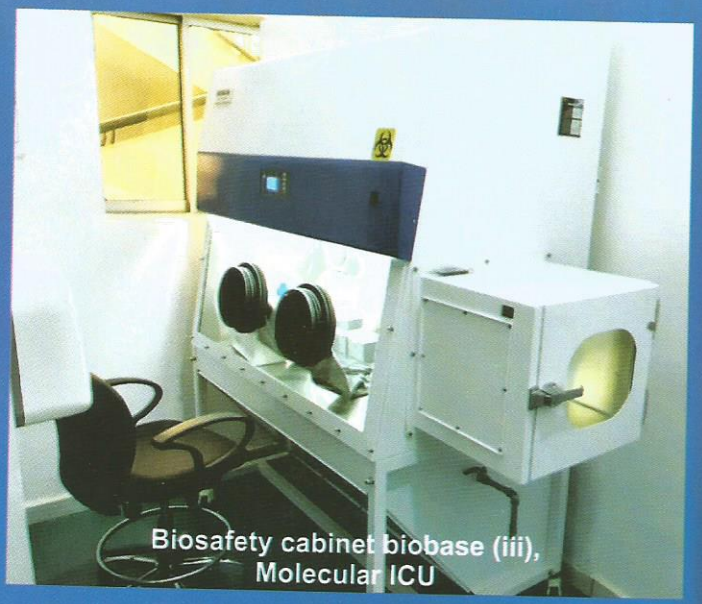
Transformation of National Hospital, Abuja

Transformation of National Hospital, Abuja

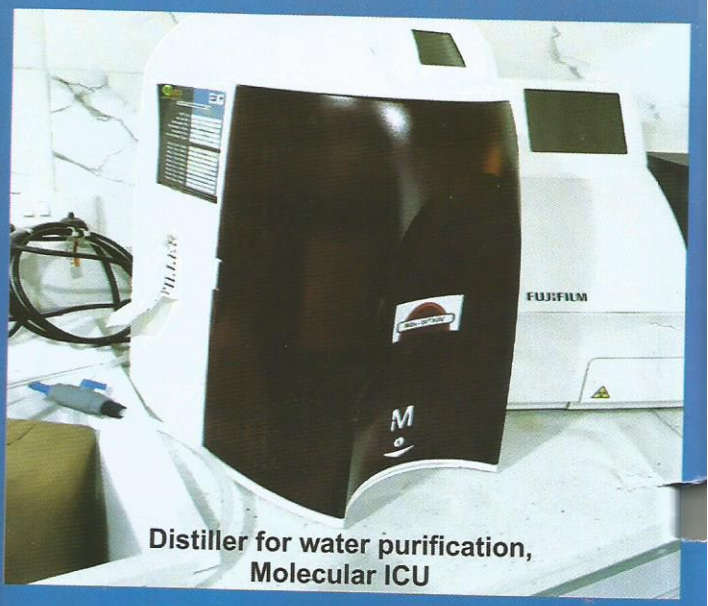




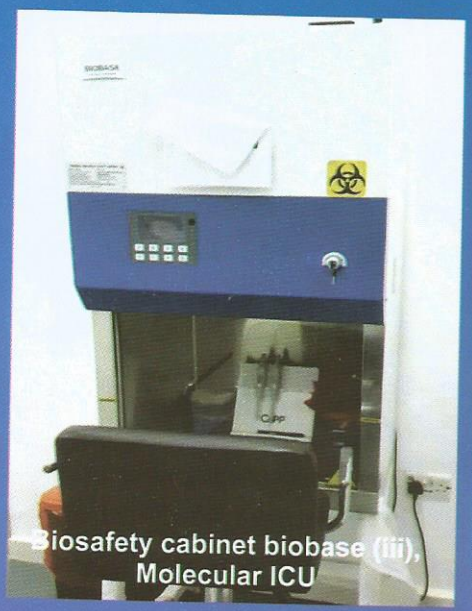
Transformation of National Hospital, Abuja



Biosafety cabinet biobase (iii), Molecular ICU



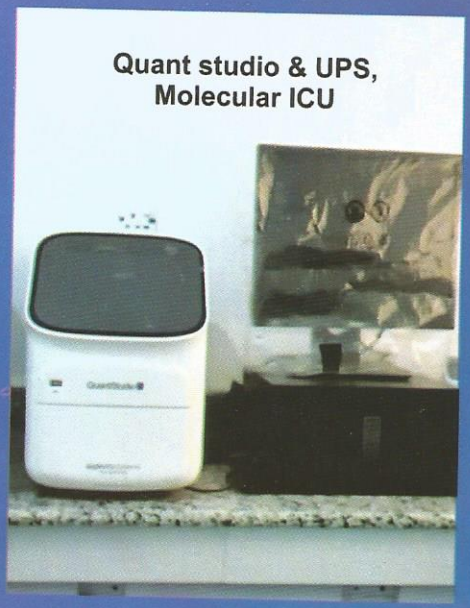
Distiller for water purification, Molecular ICU



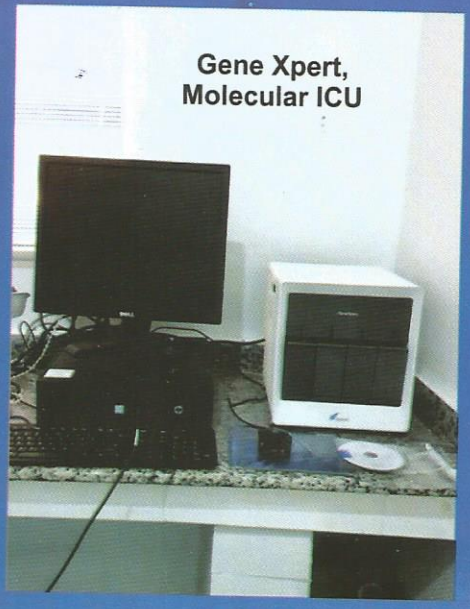
Biosafety cabinet biobase (iii), Molecular ICU

Biosan, Molecular ICU

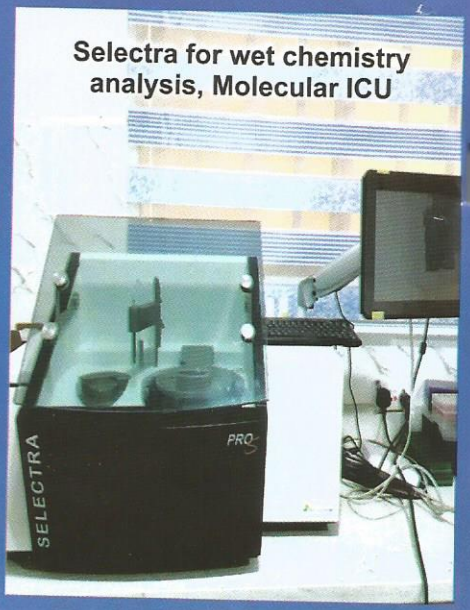
Auto clave, Molecular ICU



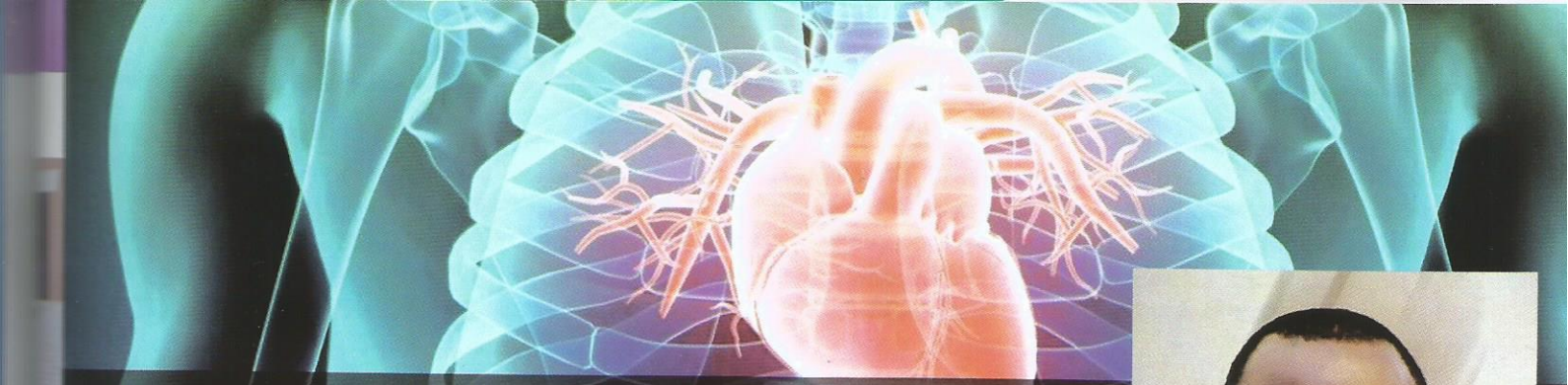
Quant studio & UPS, Molecular ICU



Gene Xpert, Molecular ICU



Selectra for wet chemistry analysis, Molecular ICU



Lifestyle Strategies in managing Cardiovascular Disease

Dr. Oladipupo Fasan, FWACP; Consultant Cardiologist, Dept Of Internal Medicine, National Hospital Abuja.

Cardiovascular disease (CVD) is a major cause of disability and premature death throughout the world. It contributes substantially to the escalating costs of health care. The underlying pathology in most instances is atherosclerosis. This develops over many years and is usually advanced by the time symptoms start to occur.

The 20th century saw unparalleled increases in life expectancy and a major shift in the causes of illness and death throughout the world. During this transition, cardiovascular disease (CVD) became the most common cause of death worldwide. According to the World Health Organization report, CVDs accounted for about 10% of deaths a century ago but now accounts for 60% of deaths worldwide. Of a total of estimated 17.5million cardiovascular deaths yearly, ischaemic heart disease and stroke together account for 14 million annual deaths while the others account for the remaining 3.5 million deaths. There is an expected 120% and 137% increase in the female and male prevalence by 2020 with nearly 40 per cent in high-income countries and 28 per cent in low- and middle-income countries. CVD is expected to account for three-fourths of all deaths by 2030.

A risk factor is a characteristic or feature of an individual or population that is present early in life and is associated with an increased risk of developing the disease in the future. It can be inherited, acquired or a laboratory determined value. However, in this literature, the acquired types will be the focus of discussion.

The concept of total/absolute CVD risk assessment constitutes a major advance in developing strategies for the prevention of CVDs. Total cardiovascular risk is defined as the probability of an individual experiencing a CVD over a given period, for example, 10 years.

These risk factors are associated with changes in the vessel wall (vascular remodelling) leading to cardiovascular disease. An increase in oxidative stress leads to endothelial dysfunction with a reduction in nitric oxide production(potent vasodilator and anti-vascular remodelling) and excessive production of endothelin and angiotensin II (both are vasoconstrictors). Other substances such as vascular cell adhesion molecule(VCAM), plasminogen activator inhibitor -1(PAI-1) promote inflammation and disrupts fibrinolysis further enhancing vascular remodelling and plaque rupture. These processes mark the development and progression of atherosclerosis.

The major cardiovascular diseases in Nigeria include hypertension, coronary heart disease, cardiomyopathies, cerebrovascular disease and peripheral vascular disease amongst others. The majority of them are preventable and can also be partly or wholly managed with lifestyle measures directed at controlling the risk factors. The risk factors include

> *"Total cardiovascular risk is defined as the probability of an individual experiencing a CVD over a given period"*

cigarette smoking/use of tobacco products, excessive alcohol consumption, physical inactivity, unhealthy diet, overweight/obesity, diabetes/ impaired fasting glucose and dyslipidaemia.

Cigarette smoking/Tobacco use

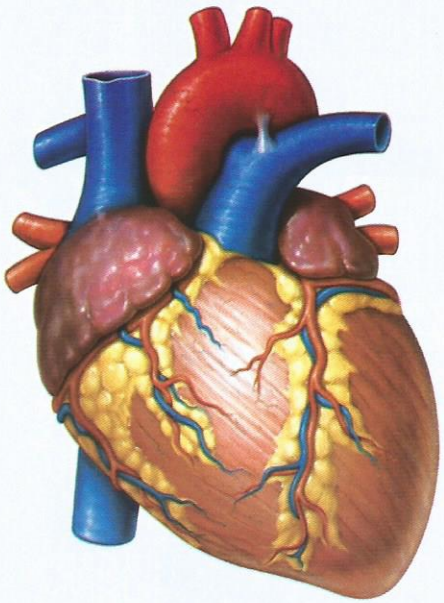
This is the number one most

preventable cause of CVD worldwide. Data available shows that about 1.3 billion people use tobacco out of which 1 billion indulge in smoking. It predisposes to about 1.17 million CVD deaths worldwide with 35-50% of all smoking-related deaths being acute myocardial infarction. The other ways of using tobacco include chewing, hooker pipes, kreteks, bidis etc. Over 80 per cent of these are in low and middle-income countries. The overall prevalence of smoking in the united states for adults over 18years of age or older is 15.5% with 17.5% and 13.55 of men and women respectively still currently smoking.

The Global Adult Tobacco Survey (GATS 2013) shows 4.5million Nigerians use tobacco (10 per cent and two per cent of men and women)while 17.3per cent of adults who work indoors are exposed to second-hand tobacco smoke at work. The risk of ischaemic heart disease is 30 per cent greater in passive smoking than in non-smokers. Globally, the relative risk for CVD in tobacco smokers is increased when compared to the general population. There is a large body of evidence regarding the effect of smoking cessation on CHD mortality. While some studies have suggested 10 years before the risk for CVD falls to that non-smokers, others suggest that a much longer time is required. A 50-year follow-up of British doctors demonstrated that, among ex-smokers, the age of quitting has a major impact on survival prospects as those who quit between 35-44 years of age had the same survival rates as those who had never smoked.

Hypertension

This is an early indicator of epidemiologic transition. Mean population blood pressure trends with industrialization and rural-urban migration. Hypertension is defined as a sustained office blood pressure reading =/> 140/90 mmHg. It is responsible for about 62 per cent and 49 per cent of strokes & coronary heart disease. Lawes and colleagues showed that about 50 per cent of the attributable CVD burden occurs in people with systolic blood pressure less than 145mmHg. Hypertension affects about 1 billion people worldwide, about 22 per cent of the world population. 22.5 per cent of Nigerians are affected with only a third of affected Nigerians being aware of their blood pressure status. The risk of CVD doubles with every



20mmHg and 10mmhg increase in the systolic and diastolic blood pressure between the ages of 40-70 years respectively.

Treating elevated blood pressure is associated with a 35-40 per cent reduction in the risk of stroke and at least a 16 per cent reduction in the risk of myocardial infarction.

Dyslipidaemia

This is defined as elevated or low lipids in the blood. Lipids are fatty substances such as cholesterol and triglycerides. Dyslipidaemia predisposes to atherosclerosis which is the link between dyslipidaemia and CVD. Worldwide, it is responsible for 50 per cent and 18 per cent of ischaemic heart disease and stroke respectively. In a study done in 2008, sub-Saharan Africa had the lowest mean total cholesterol in comparison to other regions. A continuous relationship exists between low density lipoprotein

> ***"22.5 per cent of Nigerians are affected with only a third of affected"***

(LDL) and CHD risk. In the Multiple Risk Factor Intervention Trial (MRFIT), higher serum levels of total cholesterol increased the risk of CHD. Other studies have shown that populations with averagely low cholesterol levels have reduced coronary events when compared with populations with higher cholesterol averages.

In recent years, research has focused on the relationship between CVD and food and dietary pattern rather than specific/single nutrients. The dietary patterns that have been more extensively evaluated include the DASH(Dietary Approaches to Stop Hypertension) and the Mediterranean diet both of which have proved to be effective in CVD prevention.

Lifestyle measures at preventing or managing dyslipidaemia are multifaceted. These measures include healthy dietary pattern, adequate physical activity, weight reduction. Consistent evidence from epidemiological studies indicates that higher consumption of fruit, non-starchy vegetables, nuts, legumes, fish, vegetable oils, yoghurts and whole grains along with lower intake of red and processed meat, foods higher in refined carbohydrates, and salt is associated with lower incidence of CVD.

Unhealthy diet

Human evolution created a selective ability to conserve and store fat as a defence against time when there is drought. As per capita income increases so does consumption of saturated animal fats, inexpensive hydrogenated vegetable fats containing trans fat and simple carbohydrates(CHO). Across the world, average calorie consumption has increased over the past 4 decades while in the united states it has increased from 2076 to 2534 calorie, in China, there is an increase of 25-35 per cent and 14-28 per cent in the urban and rural areas respectively.

Saturated fats have been shown to raise LDL-cholesterol levels while n-6 polyunsaturated fatty acid (soybean and sunflower oil) and monounsaturated fatty acid (olive oil) lower total and LDL cholesterol. Trans fatty acid comes from both vegetable oil and animal oil as it is produced by partial hydrogenation of unsaturated oils and have been shown to increase LDL cholesterol and lower HDL cholesterol. Dietary cholesterol seems to have a relatively small effect on serum lipids compared with dietary saturated and trans-fatty acids. A high intake of fat (> one-third of total calories) increases the intake of saturated fat and is associated with the consumption of excess calories and weight gain. Current guidelines recommend a diet that provides less than 30 per cent of calories from dietary fats, up to 10 per cent from polyunsaturated fats and about 15 per cent from monounsaturated fats. Intake of omega-3-fatty acids found in fish and fish oils and certain plants like walnuts, soybean, flaxseed and canola reduce the risk of CHD.

Salt Intake

Many studies have shown a direct correlation between high salt intake and increased high blood pressure, the incidence of stroke, CHD and increase CVD morbidity and mortality. The efficacy of reduced sodium intake in lowering blood pressure is well documented. In a meta-analysis, an average reduction of 100mmol/day in dietary sodium has been shown to reduce systolic blood pressure by 7.11mmHg and diastolic blood pressure by 3.88mmHg in those with hypertension. The Federal Ministry of health in 2015 revealed that excessive intake of salt and simple sugars are on the increase in Nigeria.

Fruits & Vegetables

Many studies have shown that a diet containing more fruits, vegetables, fish(particularly, oily fish), whole grains and fibre as well as maintaining a caloric balance lowers the risk of CVD. The nutritional guidelines issued by the American Heart Association and other evidence-based guidelines as well as the 2020 Strategic Plan for Improving cardiovascular Health and lowering Cardiovascular Risk have all recommended a dietary pattern higher in fruits and vegetables, whole grains, non-fat dairy, seafood, legumes, nuts and lower in red and processed meat, refined grains,sugar-sweetened beverages, and saturated and trans fat.

Physical inactivity

Physical activity refers to all bodily movement produced by skeletal muscles that require energy expenditure. This refers to all movements including leisure time, as part of a person's work or even activities involved in getting to and from places. Observational studies reveal that leisure-time physical activity is associated with reduced cardiovascular risk and cardiovascular mortality in both men and women as well as in middle-aged and older individuals. An increasing amount of physical activity lowers the risk of stroke and heart failure in a dose-dependent relationship. Inadequate physical activity is responsible for about one-third of CVD due to CHD and type 2 diabetes mellitus. Physical activity improves endothelial function thus enhancing vasodilation and vasomotor function in the blood vessels.

Physical activity also contributes to glycaemic control, weight loss, lipid profile (moderate effect in increasing HDL), insulin sensitivity and improved blood pressure. The prevalence of insufficient physical activity in Nigeria is estimated at 19.8% according to a WHO report in 2014. 80% of working-class adults in urban areas in Nigeria do not meet the WHO recommendation of adequate physical activity. The 2018 American Physical Activity Guideline call for moderate-intensity exercises which do not need to be strenuous or prolonged and should be at least 150 minutes per week(30 minutes, 5 days a week) or at least 75 minutes of vigorous exercise and muscle-strengthening activities at least 2 days per week.

Harmful alcohol consumption

The relationship between alcohol and CVD was first opined by klatsky et al over 4 decades ago. Many studies have shown a J-shaped and direct association between myocardial infarction and alcohol consumption and hypertension and alcohol consumption respectively. People who drink light or moderate amount of alcohol have a lower death rate than non-drinkers while those that drink heavily have a higher death rate. Heavy drinking is linked to high all-cause mortality and CVD.

WHO ranks Nigeria amongst the highest consuming nation for alcohol in Africa with an estimated per capita consumption of pure alcohol of about 10.1 litres.

Cont. on page 33

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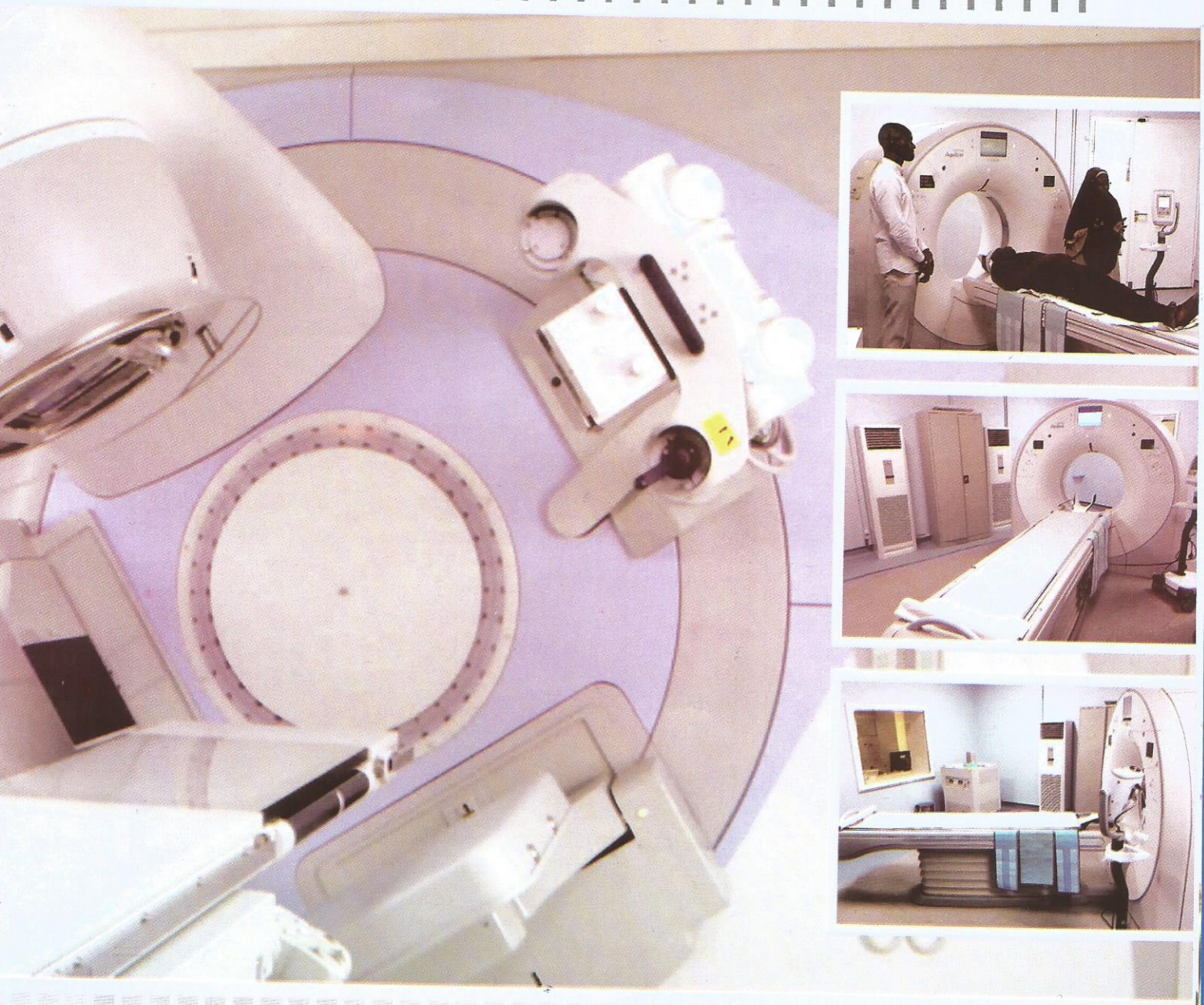
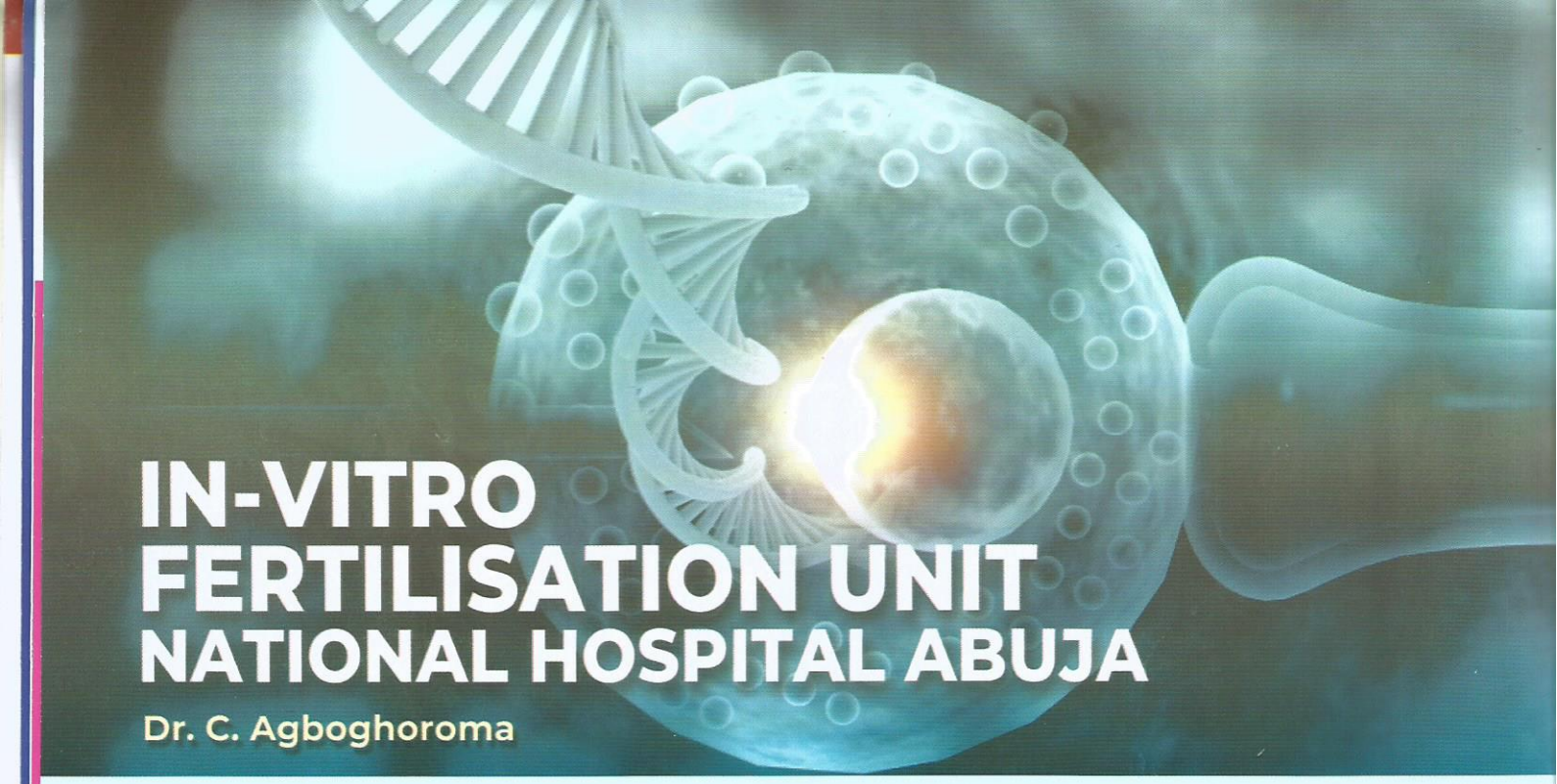
Cancer Treatment



Accessible

Effective

Cheaper



IN-VITRO FERTILISATION UNIT NATIONAL HOSPITAL ABUJA

Dr. C. Agboghoroma

Introduction

Assisted Reproduction Technology (ART) services are a rapidly growing sub- specialty interest in Obstetrics and Gynecology. The demand for the service has increased over the years as the awareness of its potentials to alleviate the problem of infertility increases in the society. IVF services commenced in 2006 at the National Hospital Abuja to mitigate the sufferings of many families who are having difficulties in achieving natural conception. It is the first sustained public sector IVF Centre in Nigeria.

The NHA IVF Unit serves the following purposes –

- Comprehensive management of infertility cases.
- Management of patients with specific indications such as bilateral tubal blockade, male infertility, gonadal failure etc.
- Make ART services accessible to the public through provision of low-cost ART.
- Research and training

The Unit has adequate number of trained staff and ensures that Quality Services are sustained through the following –

- Development of guidelines for the various procedures in the unit
- Provision of essential and up-date equipment for IVF services
- Regular review of services and outcomes.
- Regular training and retraining of staff

List of specialized services provided by IVF Unit include the following:

- Seminar Fluid Analysis (SFA)
- Transvaginal Ultrasound Scan (TVS)
- Invitro-fertilisation and Embryo transfer(IVF-ET)
- Intra Uterine Insemination (IUI)
- Intra-Cytoplasmic Sperm Injection (ICSI)
- Cryopreservation or freezing of gamete/embryos
- Frozen embryo transfer
- Surgical sperm retrievals including:
  - Percutaneous epididymal (PESA)
  - Testicular sperm aspiration (TESA)
  - Testicular sperm extraction (TESE)
  - Micro epididymal sperm aspiration (MESA)
- Gamete donation services

OPERATIONAL GUIDELINES:

Standard guidelines and protocols are in use for ovarian stimulation and for laboratory services. The main steps in standard IVF / ICSI services includes the following:

- Initial consultation and investigations at the Gynae clinic and/or private wing clinic.
- The investigations would include hormonal assay between day 2 and 5 of menses; Seminal fluid analysis after 3-5 days of abstinence; transvaginal ultrasound scan; HSG and /or hysteroscopy.

> *"..,we are the first sustained public sector IVF Centre in Nigeria"*

- Based on the findings, patient may benefit from In-vitro Fertilization (IVF), Intracytoplasmic Sperm Injection (ICSI), Intra-uterine Insemination (IUI) or Timed Intercourse (TI). IVF is the option if SFA is adequate while ICSI is the option when SFA is very low.
- In the long protocol, treatment begins on day 21 from the date of last menses. Injection buserelin is given sub cute every

day at about the same time for the first 13 days.

- Trans vaginal scan is done on the 14th day to see the extent of down regulation. Hormonal assay may be repeated to be sure that down regulation has been achieved. Injection buserelin may continue for one week or as necessary
- Intramuscular injection (HMG) now commenced to stimulate ovaries, the dosage per patient is determined by factors such as age, FSH levels, body size (BMI) etc
- HMG is given daily for 7 days; scan is done on day 8 to determine the response of the patient, dose is then adjusted if necessary.
- Scan now becomes more frequent, either daily or alternately to monitor follicular growth closely.
- When at least 3 follicles have reached about 18mm and above, injection HCG is given to mature follicles. This is usually between days 10 of stimulation to day 13 in rare cases.
- Egg collection or oocyte retrieval (OCR) is done at about 34hours from the time of HCG.
- Patient is allowed to go home the same day and commence some progesterone support and oral tablets to aid implantation.
- Embryo transfer is done between 48-72 hours after OCR and the patient goes home to continue bed rest for 2 weeks until pregnancy test. If positive, bed rest continues along with medications until cerclage is done at about 11-12 weeks of pregnancy.
- If pregnancy is negative, patient is counselled accordingly on the possible way forward
- After cerclage, patient is referred to the Gynae team for onward antenatal care till delivery.

WEEKLY ACTIVITIES AND SCHEDULE:

The IVF sessions are run in batches. For each batch, patients that meet the required indication are recruited and counseled. The services are run throughout the week (Monday to Friday, 8:00am – 4:00pm). The services include super-ovulation, pelvic scan, egg collection, sperm preparation, fertilization & embryo transfer.

Lifestyle Strategies in managing Cardiovascular Disease

A meta-analysis of 28 cohort studies of alcohol consumption and CHD showed that risk decreased as consumption increased from 0-20g/day; there was evidence of a protective effect of alcohol up to 72g/day and increased risk at consumptions above 89g/day.
Smaller protective and higher harmful effects are seen in women.

Overweight/obesity

Both overweight and obesity represent major CVD risk factor and a causal factor directly or indirectly in many other conditions like diabetes, hypertension, dyslipidaemia, obstructive sleep apnoea and osteoarthritis. Overweight is defined as a body mass index(BMI) between 25-30kg/m2 while obesity is defined as BMI greater than/equal to 30kg/m2. The distribution of body fat also carries additional risk because abdominal obesity is an independent risk factor for CHD.

The accumulation of intra-abdominal fat promotes insulin resistance, which can lead to glucose intolerance, elevated triglycerides and low HDL as well as hypertension. The prevalence is on the increase worldwide with about 1.46 billion adults being overweight/obese. Although the high-income countries still have the highest prevalence, low and middle-income countries are rapidly catching up. The prevalence of overweight in the united states is 30% and 40% for adult women and men respectively. Estimates for obesity are currently 40% for women and 35% for men. Severe obesity(BMI≥35KG/M2) has a prevalence of approximately 16%. In the Action for Health and diabetes study, it was shown that individuals who lost 5-10 % of their body weight were able to improve their lipid profile and reduce their cardiovascular risk factors significantly. Weight reduction can be achieved by decreasing the consumption of energy-dense foods, inducing a calorie deficit of 300-500kcal/day.

Weight loss programmes using dietary, physical activity and behavioural interventions are most effective in reducing CVD.

In conclusion, the implementation of good lifestyle habits will help to prevent cardiovascular disease. The responsibility of disseminating this information rests on the shoulders of physicians and other health care professionals. The policy-makers also have their task cut out for them by providing leadership and coordinating public and private sector involvement. The food manufacturing and fast food industry will need to learn new and healthy ways of making food for their teeming clients.

Dr. Aisha Umar

CMAC/DCS, National Hospital, Abuja

Dr. Aisha Umar is a Nigerian Doctor, who was born some decades ago. She holds a Bachelor of Medicine and Bachelor of surgery degrees (University of Calabar 1995) as well as a Doctorate in Medicine (University of Zurich 2012). She holds a fellowship of the Medical College of Radiology (FMCR 2003) as well as the European Certificate of Neuroradiology (ESNR 2011).

She has served the National Hospital Abuja for over 20 years. She also served at various times, the Head of Radiology Department, the Deputy Chairman Medical Advisory Committee and Chairman Medical Advisory Committee/ Director of Clinical Services National Hospital Abuja since 2019.

Dr Aisha Umar has interest is in Neuroradiology Education for both radiology residents and other clinicians who use Neuroradiology for case management.

In 2013 she was a grant recipient of the World Federation of Neuroradiology from which she set up a pioneer Neuroradiology training programme at the National Hospital, which carried out the 1st Abuja Neuroradiology course in 2013 with 10 professors and 70 participants from across the country.

This programme has since trained more than 30 Neurosurgical residents and others in various faculties that carry out a three months clinical rotation at the National Hospital Radiology department to date.

Dr Aisha Umar is an examiner in the faculty of Radiology of the National Postgraduate Medical College of Nigeria since 2013 and various times she served as national course coordinator for Refresher courses of the faculty of Radiology in 2015 and 2017.

She has recently been elected as a member of the faculty Board of Radiology, National Postgraduate Medical College of Nigeria

As the Director of Clinical Services and Chairman Medical Advisory Committee, she was saddled with the hospital operations in the active management of the COVID-19 Pandemic since February, 2020 to date.

Her proactive measures in putting together a cohesive team of committed and dedicated staff, to ensure the success in the management of the COVID-19 operation, is really something great to reckon with. Certain measures were put in place to protect staff, patients and their relations from infection, logistics required were provided within available resources and also, the over 1700 clinical Directorate staff, are properly managed.

For over 20 years she has been an active member of the Medical Women Association and served as the President of the FCT Chapter of MWAN from 2019 to 2021. She was also a member of the FCT Council of the Nigerian Medical Association and recently been appointed as the Chairman of the FCT COVID-19 committee.

She is a member of several National and international organizations, some of which are;

1. Nigeria Medical Association. (NMA)
2. Medical Women's Association of Nigeria. (MWAN)
3. Medical Women International Association. (MWIA)
4. Association of Radiologist of Nigeria. (ARIN)
5. Association of Radiologist of West Africa (ARAWA)
6. European Society of Radiology (ESR)
7. Medical and Dental Consultants Association of Nigeria (MDCAN)

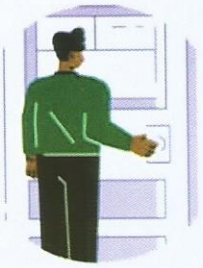
She lives with her family in Abuja and enjoys photography, bird watching and writing.

Important Handwashing Moments

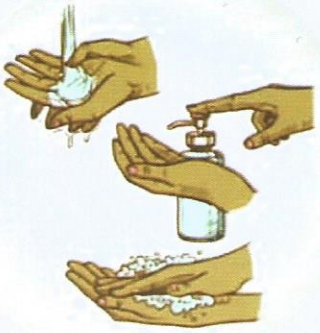
These are moments when you should wash your hands:

After coughing or sneezing

Before touching a mask



After touching high contact surfaces



When entering/ leaving a public space

Upon returning home from essential services

While caring for the ill

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NMA FCT wins a trophy in "2022 National Doctors Games."

Reported by **Moses Igbawua**

The just concluded 6h edition of the National Doctors' Games organized by the umbrella body, Nigerian Medical Association (NMA) was hosted in the FCT-Abuja at the Moshood Abiola Stadium. Participants were drawn from eight zones which comprises South-South, South-West, South-East, Lagos, FCT, North-Central, North-West and North East zones.

The games which held in the first Quarter of the year 2022, fielded a number of events which were included but not limited to football, basketball, volleyball and table tennis. Board games include scrabble, cheese and draft. Others include badminton and tract events involving both female and male categories except football.

Presenting the trophy and medals won to the Head of Department, Information/Protocol Management, National Hospital Abuja Tayo Haastrup Ph.D , the Director Socials of the ARD-FCT Dr. Nkem Anigbo said that the FCT zone was placed 3rd on the medals table coming behind the Lagos and the South-South zones, being 1st and the later 2nd respectively.

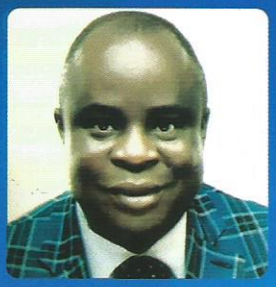
Dr. Anigbo said that the ARD fielded contingents' in virtually all the events, thereby demonstrating doctors' invaluable position in the sport and social activities realm of the NMA-FCT.

He further acknowledged the continuous support given by the Management, but still pleaded for more support going forward as they intend to host an in-house games/tournament in the near future.

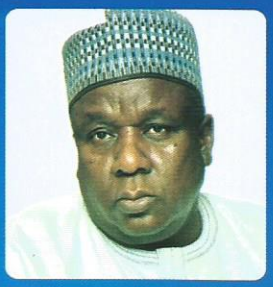
MEET THE BOARD MEMBERS OF NATIONAL HOSPITAL, ABUJA

Rt. Hon. Olubunmi P. Etteh CFR
Board Chairman

Dr. J. A. F Momoh
Chief Medical Director

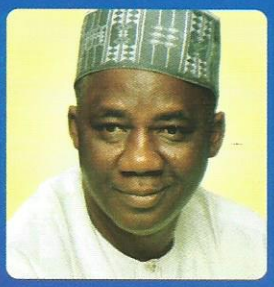


Dr. Peter Egwakhide
Secretary



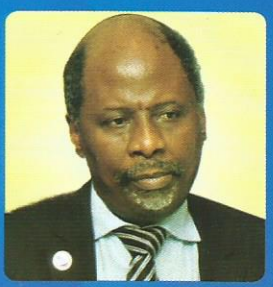
Alh. Bakura Shettima

Hon. Isa Bawa Adamu



Prof. Mike o. Ogirima mni

Prof. G. Olufemi Ogunrinde



Prof. Oluwarotimi Ireti Akinola

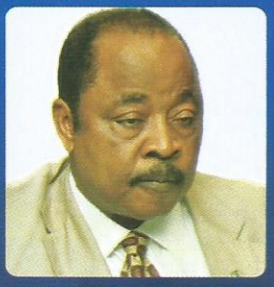
Sir. Mene a. Sunny

Engr. Ola Samuels Agboola (Mrs)

Dr. Aisha Umar

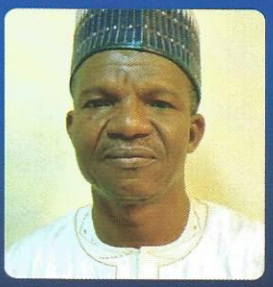
Mrs. Elizabeth Egharevba

Mrs. Jumoke Smith



Dr. Victor Amuta

Dr. Chris Osa Isokpunwu



Alh. Dajuma Maaruf Hassan

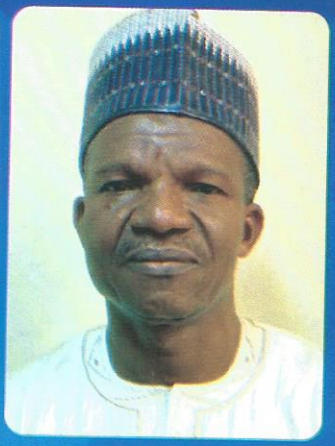
The Team

MEET THE TOP MANAGERS OF NATIONAL HOSPITAL, ABUJA

Dr. J. A. F Momoh
Chief Medical Director

Dr Aisha A. Umar
Director Clinical Services/CMAC

Dr. Peter Egwakhide
Director of Administration/ Secretary Board



Alh. Danjuma Hassan M.
Director of Finance & Accounts (DFA)

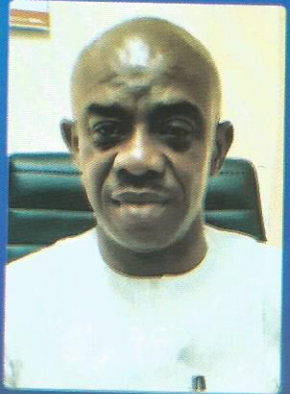
Engineer Ola Samuels Agboola (Mrs.)
Director of Maintenance

...Other Managers

Barr. Chris Mamman
Deputy Director, Legal Services

Mr. Umaru Aliyu
Deputy Director, Nursing Services

Dr Adetutu A. Ajemigbitse
Deputy Director/ Head of Pharmacy



Mr. Tony Osuji
Deputy Director/ Planning and Research

The effects of climate change on health?

MedicalNewsToday

A new study evaluating health data over the past 20 years finds that a spectrum of health conditions are adversely affected by climate change.

Both the extent and cause of climate change remains a controversial area of debate.

According to polling over the past 2 decades, two thirds of Americans believe that climate change is occurring, with about 40% of these believing that humans are the cause, and about half believing climate change will pose a serious threat in their lifetimes.

But the authors of the new study – from the Global Health Institute, University of Wisconsin-Madison – say the consensus is that fossil fuel combustion and tropical deforestation contribute to climate change. Health, the researchers add, is inextricably linked to climate change.

The authors gathered data from 56 medical journal articles investigating the health impact of climate change and looked at air temperature data from the National Oceanic and Atmospheric Administration National Climate Data Center. The researchers averaged data over 13 climate models.

The researchers say their results show that many American cities will experience more frequent extreme heat days by 2050. This means that cities such as New York and Milwaukee may have, on average, three times as many days hotter than 90°F.

What health conditions may be affected by climate change?

More frequent days of extreme heat means that many health concerns will be exacerbated, such as:

- Respiratory disorders, including those made worse by fine particular pollutants (such as asthma and allergic diseases)
- Infectious diseases, including insect-transmitted diseases and water-borne diseases (such as childhood gastrointestinal diseases)
- Food insecurity, including reduced crop yields and an increase in plant diseases
- Mental health disorders, such as post-traumatic stress disorder and depression, that are associated with natural disasters.

In the study, the authors argue that substantial health and economic benefits may be associated with reduced combustion of fossil fuel:

"Accounting for co-benefits may document that reducing greenhouse emission yields net economic benefits, that labor productivity increases, and that health system costs are reduced. Co-benefits can provide policymakers with additional incentives, beyond those of curtailing climate change, to reduce the emissions of both carbon dioxide and short-lived climate pollutants."

The authors add that because climate change may have important implications for the health of the world's population, it is important that high-quality research ***"and responsible, informed debate needs to continue. However, given that evidence over the past 20 years suggests that climate change can be associated with adverse health outcomes, strategies to reduce climate change and avert the related adverse effects are necessary."***

> ***"...Medical community, public, and policy makers are crucial if the health of the world's population is to continue to improve..."***

"Today, in the early part of the 21st century," they write, "it is critical to recognize that climate change poses the same threat to health as the lack of sanitation, clean water, and pollution did in the early 20th century. Understanding and characterizing this threat and educating the medical community, public, and policy makers are crucial if the health of the world's population is to continue to improve during the latter half of the 21st century."

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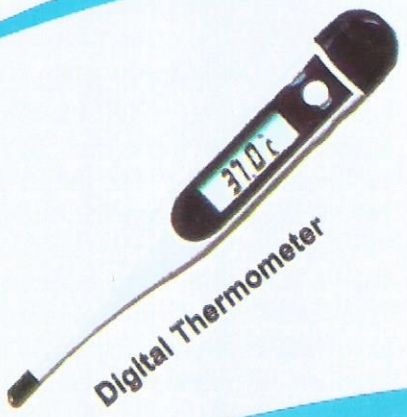

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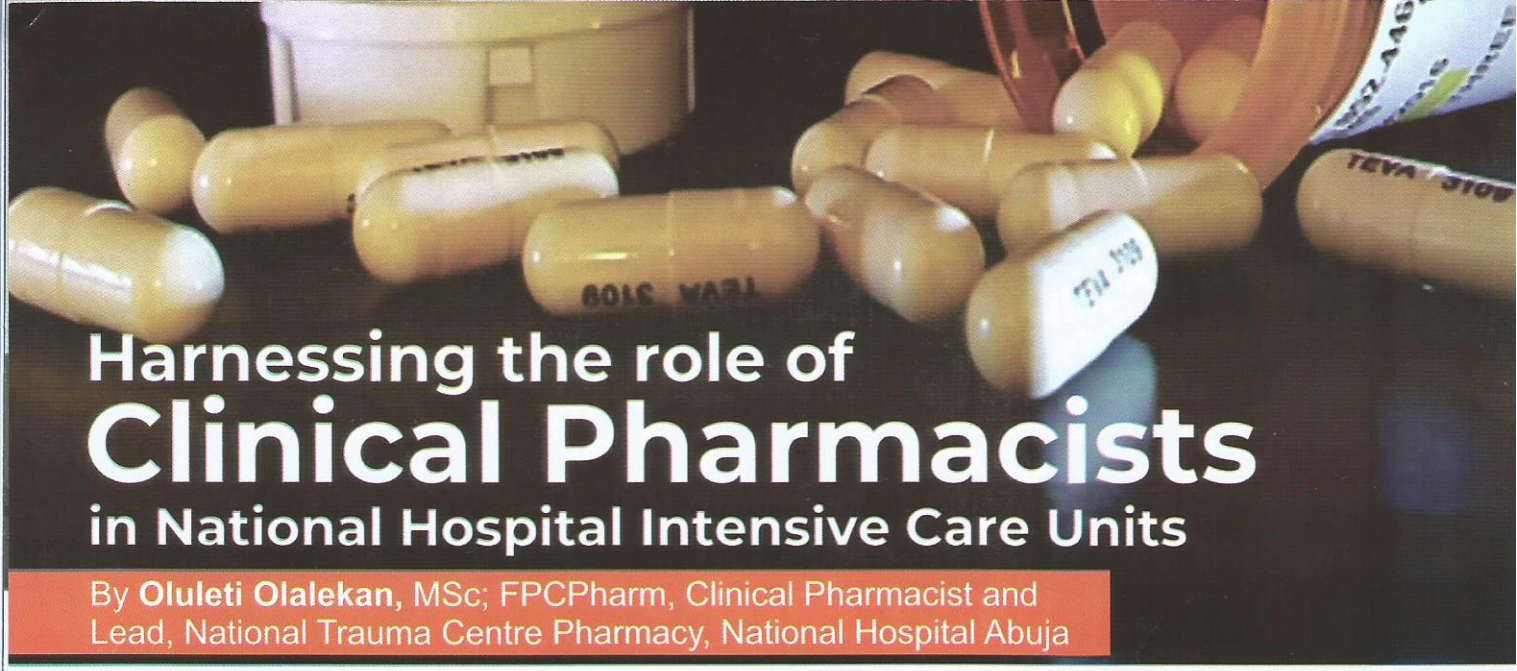

Harnessing the role of Clinical Pharmacists in National Hospital Intensive Care Units

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Clinical Pharmacists, also called advanced practice pharmacists (Aph), Pharmacist Clinicians (PhC) and Clinical Pharmacy Specialists (CPS) are experts in the therapeutic use of medications. They are a primary source of scientifically valid information and advice regarding the safe, appropriate, and cost-effective use of medications. They routinely provide medication therapy evaluation and recommendations to patients and other health care professionals, namely Physicians, Nursing practitioners, and others. They provide direct patient care that optimizes the use of medication and promotes health, wellness, and prevent disease.

The former Director General of The World Health Organisation, DR. Hiroshi Nakaljima (1988-1998) once remarked that without drugs, healthcare service delivery lacks substance and credibility. This underscores the well known fact that use of medication to support patients and optimise outcomes is a fundamental strand of care. Clinical Pharmacists provide a key role in managing medication within the complexity of various routes of administration, severe and rapidly shifting pharmacokinetic and dynamic parameters and extremes of physiology in critical illness.

The first intensive care unit (ICU) was established in the United States in 1930 and this coincided with the take off of clinical pharmacy residency service. The ICU accounts for up to 34% of inpatient healthcare cost in the United States, 13.2% of hospital costs and 4.1% of national health expenditure in the year 2010. This shows that the bulk of healthcare budgetary allocation goes to servicing intensive care units and there is need to ensure that services in these units are optimized.

Caring for critically ill patients in an intensive care unit is considered a standard of care in today's environment. However, the ICU is a rapidly changing, complex, and costly environment where poly-pharmacy is the norm and medications are frequently used in combinations involving ever-changing doses based on physiologic responses and critical illness-related organ dysfunction. This creates the 'perfect storm' scenario that is ripe for medication errors.

In the United Kingdom, Clinical Pharmacists' involvement in critical care started in the 1990s and Pharmacists are now actively involved in 98.6% of critical care units across the United Kingdom. Involvement of Clinical Pharmacists in the management of patients in all clinical settings and more so in critical care units has been proven to increase the quality of care through medicines optimization, medication error interception, and greater regard to standardized therapy, reduced healthcare costs and improved outcomes.

Physicians, Pharmacists and Nurses are trained to give error free care. Despite that, errors happen.

The 2014 Institute of Medicine report, ***"To Err is Human: Building a Safer Health System"***, stated that unintentional errors led up to 98,000 death per year, and medication errors accounted for 19% of the error with approximately 7,000 deaths. Another study reported that errors in hospitalized patient care account for approximately 400,000 deaths/year, making it the third leading cause of death in the United States. Examples of medication errors include improper and unnecessary use of medications leading to avoidable medication costs, antibiotic misuse, suboptimal generic use, mismanaged polypharmacy among the elderly and non-adherence to chronic disease medications. Rothschild et al.; (2015) found that most medication errors occurred during medication ordering (prescribing) or when administering the medication. Most of the errors were slips and misses rather than a deficit in knowledge bases. Apart from mortality (death), and disability, other consequences of medication errors include co morbidities, prolonged or new hospital admissions, emergency department visits and other tangible and intangible costs on the patients and the economy.

However most of these medication errors which cost lives and living can be prevented by having the Clinical

Pharmacist play an integral role by being involved in the review of Patients charts, clinical data, performing medicines reconciliation and follow-ups.

The Clinical Pharmacist working in these areas can provide a wide range of services that can expedite the arrival of medications and improve adherence to clinical practice guidelines and patient outcomes. In addition to processing medication orders and coordinating the arrival of medications, clinical pharmacists can also assist with therapeutic monitoring of drugs such as vancomycin, aminoglycosides, warfarin etc, medication dosing, renal dosing, emergency preparation of hypertonic saline for patients with Traumatic brain injuries, responding to medical emergencies and in the implementation of new institutional policies and protocols.

Clinical Pharmacists interact directly with patients in several different ways. They use their knowledge of medication (including dosage, drug interactions, side effects, expense, effectiveness, etc.) to determine if a medication plan is appropriate for their patient. If it is not, the pharmacist will consult the primary Physician to ensure that the patient is on the proper medication plan. The Pharmacist also works to educate their patients on the importance of taking and finishing their medications. Studies conducted into Clinical Pharmacist-led Chronic Disease Management show that it might improve physiological goal attainment.

The Clinical Pharmacist actively participates in daily multidisciplinary team round where the patients are reviewed and plans are drawn up for the day's activities and for longer term planning. Recent findings have shown that patients admitted to the critical care unit are now more complex than ever, as they present with acute illness and several chronic conditions. The care gets more challenging in the phase of medication reconciliation and drug interactions, especially when the patients take several over the counter medications before their acute illness. Clinical Pharmacists participation in the critical care multidisciplinary rounds has been shown to prevent errors and help reduce drug costs in the ICU. They were involved in patient care, drug distribution, administration and educational activities. They also help in medication de-escalation, adjustments of medications, non formulary drug request challenges and adverse drug events avoidance. These inputs have led to closer adherence to standardised care, significantly reduced direct costs of iatrogenic harm as well as help avoid payouts arising from damages claims.

The Clinical Pharmacist, besides being part of the critical care multidisciplinary team, is also involved in drug use evaluation program, cardiopulmonary resuscitation (CPR) team, compliance with venous thromboembolism prophylaxis, drug safety, error prevention, medication counselling, drug information services, medication history taking, medication reconciliation and clinical research. They help achieve clinical endpoint by minimizing fluid intake in patients on fluid restrictions, venous thromboembolism prophylaxis or drug level monitoring. In the United Kingdom, Clinical Pharmacists are given independent prescriptive authority, in addition to administering drugs, monitoring prescriptions, managing drug use, and counselling patients.

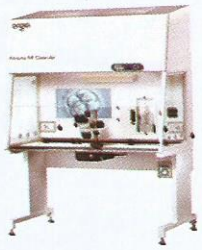
In medical emergencies such as cardiac arrest situations, Clinical Pharmacists help avoid adverse drug events in those situations by ensuring compliance with advanced cardiac life support guidelines which has led to a significant decrease in mortality (up to 19.9 deaths per year per hospital avoided) in the United States.

Mortality rates and bleeding complications were higher in the Intensive Care Units where thromboembolic and infarction-related events were managed without the services of a Clinical Pharmacist. There were also increased ICU length of stay, drug cost and patient care cost.

The core of Clinical Pharmacists' role in Intensive Care Units is medication reconciliation. Medication reconciliation is the basis of good medicines management. Errors in medication reconciliation has been responsible for 40% of medication errors and patient morbidity and mortality. Omission of pre admission medication and failure to reconcile new medication are the most frequent errors. When Clinical Pharmacists reconcile medication list, accuracy was found to improve from 32.3% to 94.2%.

In the heat of COVID-19 pandemic, Clinical Pharmacists were involved in clinical trials, the development and deployment of COVID-19 vaccines and in caring for the critically ill with COVID-19. They also collaborated with other healthcare team members to construct institutional protocols for the management of the disease. Some of those protocols pertained to use of certain antibiotics, dosing of anticoagulants such as heparin, COVID-19 intubation and nutrition. They played active roles in rehabilitation and recovery clinics for those patients discharged following COVID-19 related ICU admission. Overall, their interventions significantly helped improve standard of care.

As Nigeria strives to bridge the gap in healthcare delivery and improve on healthcare statistics with a view to achieving the health related sustainable development goals, hospitals that do not have these services should have them added as part of their armamentarium. Staffing models for round the clock delivery of Clinical Pharmacist services which has been proven to help mitigate risks, improve patient outcomes and reduce healthcare costs must be established. Moreover a national training program is required to ensure the demand and upcoming challenges are met.



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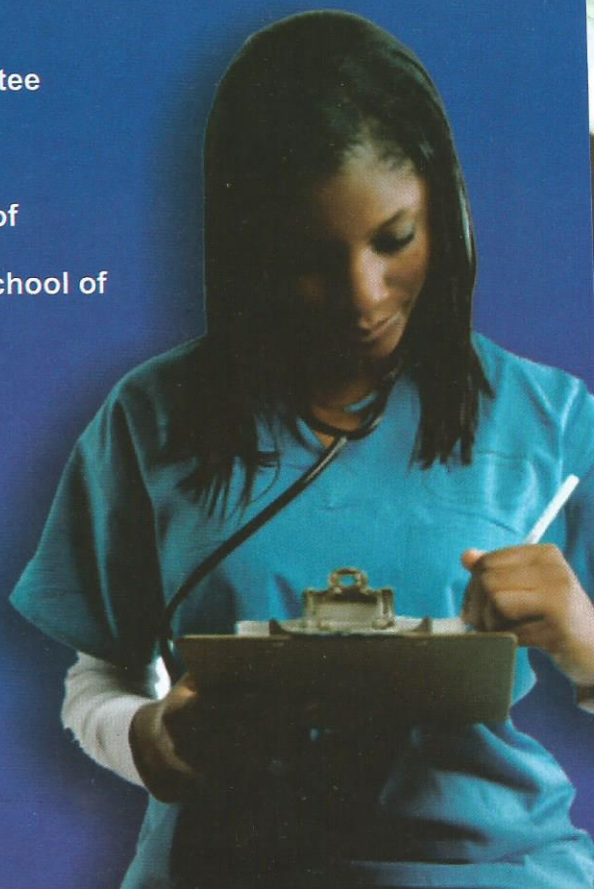
Signed
Chief Medical Director



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