

**UNIVERSITY OF PORT HARCOURT**  
**WHEN THE HEART SAYS GOOD BYE**

**A VALEDICTORY LECTURE**

**BY**

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## **PROGRAMME**

- 1. GUEST ARE SEATED**
- 2. INTRODUCTION**
- 3. THE AG. VICE CHANCELLOR'S OPENING REMARKS**
- 4. CITATION**
- 5. THE VALEDICTORY LECTURE**

The lecturer shall remain standing during the citation. He shall step on the rostrum, and deliver his Valedictory Lecture. After the lecture, he shall step towards the Vice Chancellor, and deliver a copy of the Valedictory Lecture and return to his seat.
- 6. CLOSING REMARKS BY THE AG. VICE CHANCELLOR**
- 7. VOTE OF THANKS**
- 8. DEPARTURE**

## **Dedication**

This valedictory lecture is dedicated to Okiemute and our children; Etiosa, Omosivie, Iyare, Ameze, and Oyenwen

Prof O. J. Odia

## **Acknowledgements**

I hereby show my gratitude to the Ag. Vice-Chancellor, Professor S A Okodudu and the Provost College of Health Sciences, Professor I M Siminialayi for making this lecture possible. I am grateful to Dr E A Edafe for most of the photographs used in this lecture. I thank Dr Omosivie Maduka for her technical assistance.

## **Introduction**

The Ag. Vice-Chancellor, Deputy Vice-Chancellor, other principal officers, Provost College of Health Sciences, Deans of Faculties, Members of Senate, Members of the university community, distinguished Ladies and Gentlemen.

I will start this valedictory lecture by thanking God for giving me his grace and good health to reach the proverbial biblical age of 3 scores and ten. I am retiring from service with nostalgia but with much gratitude. I thank the Management of the University of Port Harcourt and the University of Port Harcourt Teaching Hospital since September 1984 till date for giving me the enabling environment to express myself as a University teacher and medical practitioner up to the highest level.

I thank my colleagues past and present. I am particularly grateful to those in the College of Health Sciences for their love and support over the years. There is a Nigerian saying that, one does not thank himself. So, I will therefore not single out my wife and children for special thanks because they are one with me.

As I leave the University of Port Harcourt having practiced and taught internal medicine and cardiology for close to 37 years, I think it is proper to let the University Community know what happens when the heart says goodbye.

**WHEN THE HEART SAYS GOODBYE**

**“Hear my soul speak, the very instant that I saw you did my heart fly to your service”**

William Shakespeare

The tempest Act III Scene I.

The heart is regarded in many cultures as the seat of emotions. The seat and symbol of love. But for us, cardiologists the heart is but a muscular organ that houses two pumps that propel blood around the body. This perspective of the heart was first elucidated by William Harvey in 1628. William Harvey was an English doctor and physician extraordinary to King James the 1<sup>st</sup> of England. Harvey showed that blood is pumped out of the heart through blood vessels called arteries and returned to the heart through another set of vessels called veins. Today a lot is known about the structure and functions of the heart, the detailed anatomy and physiology, including the histology of its various component parts.

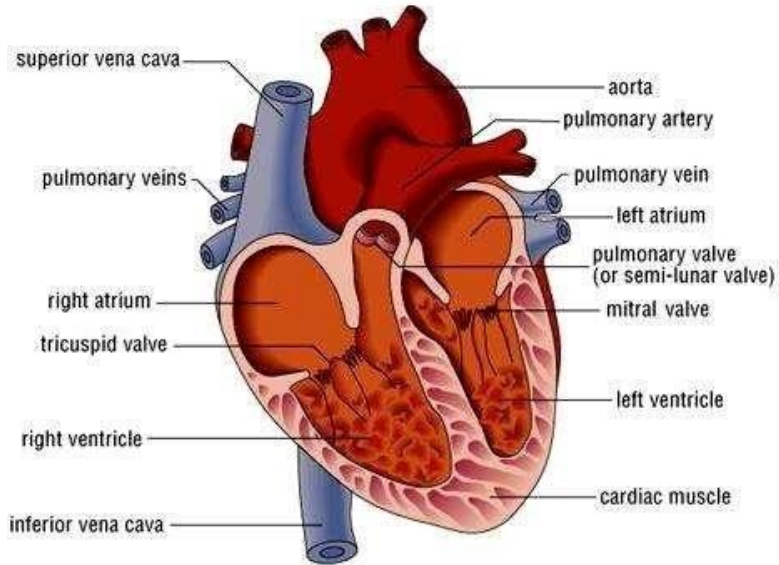
### **The Structure of the Heart:**

The heart is in the main a muscular organ. It is situated in the thoracic cavity behind the sternum and slightly rotated to the left in most people. In about 1% of persons however, the heart is slightly rotated to the right.

The heart has four chambers, the atria, which are the two upper chambers and the ventricles, the two lower chambers. The right and left sides of the heart are separated by a wall called the

septum, comprising of the atrial septum and the ventricular septum.

**A diagram of the heart structure is shown below.**



**Figure 1 structure of the heart**

**Function:**

The heart beats from birth to death. It beats continuously about 72 times per minute in most adults. After pumping blood, the heart relaxes allowing blood to enter the heart for the next pumping action. The active phase is known as the systole while the passive or resting phase is known as diastole. The right side of the heart receives blood from the body circulation via the veins, then to the right atrium and then to the right ventricle.



The right ventricle pumps the blood to the lungs via the pulmonary artery, for oxygenation. The left side of the heart receives the oxygenated blood from the pulmonary veins to the left atrium. Blood from the left atrium passes to the left ventricle and is pumped to the rest of the body via the aorta to the systemic arteries and from there to the various body organs.

The pressure with which the blood is pumped or circulated through the body systemic arteries is known as the blood pressure. The pressure in systole (active phase) is called the systolic blood pressure and the pressure in diastole (the relaxation phase) is called the diastolic blood pressure. The heart is a faithful organ. It beats continuously from birth till death, without much complaints, in the healthy state. The heart seldom complains.

The heart gives warnings by way of signs and symptoms when its structures and functions are impaired or affected by diseases or disorders. Some of these warning features include;

- Easy fatigability
- Cough productive of frothy sputum
- Swelling of the ankles
- Swelling of the abdomen
- Difficulty in breathing on exertion or at rest.
- Chest pain
- Irregular pulse or irregular heart beat
- Palpitations

These warning signs depend on the underlying disorders.

Some of the common diseases/disorders that affect the heart include;

- Hypertensive heart disease due to elevated blood pressure.
- Cardiomyopathies, (diseases of the heart muscles).
- Valvular heart diseases (diseases of the heart valves)
- Rheumatic heart disease – following streptococci sore throat infection.
- Arrhythmias (heart rhythm abnormalities)
- Coronary heart disease, (due to blockage of the blood vessels that supply blood to the heart muscles)
- Congenital heart diseases.
- Heart diseases due to infections

### **What to do**

In the presence of these symptoms and signs, one is advised to see a doctor. The doctor would, in all probability, advise one to see a cardiologist. The doctor/cardiologist would undertake some or all of the following in order to understand the nature of the disease.

- History
- Physical examination
- Laboratory tests
- ECG (Electrocardiography)
- Echocardiography (cardiac ultrasound)
- Cardiac catheterization
- Cardiac MRI (Magnetic Resonance Imaging)
- Nuclear cardiology, among others



Figure 2a: right heart catheterization with wedging



Figure 2b: pulmonary capillary wedge pressure



Figure 3: coronary angiography

After a diagnosis is arrived at, the cardiologist may plan treatment modalities.

These include:

- Drugs
- Electrical therapy
- Pacemaker insertion or implantation
- Ablation therapies
- Percutaneous Coronary Interventions (PCI)
- Cardiac resynchronization therapy
- Closed heart surgery
- Open heart surgery
- Heart transplant

Hippocrates, the father of modern western medicine, once wrote;

**“Before you heal someone, ask him if he is willing to give up the things that made him sick”.**

**Hippocrates 460 BC – 370 BC**

As part of the management of a patient, the doctor would usually seek any underlying risk factors for the disease and seek the cooperation and intervention of the patient, if possible, in this regard.

The common cardiovascular risk factors are:

- Hypertension (high blood pressure)
- Diabetes
- Alcohol
- Tobacco smoking
- Sedentary life style/ lack of exercise
- Obesity
- Age
- Gender
- Race

## **Possible Therapeutic Measures in Heart Diseases or Disorders**

### **Drugs**

Many heart diseases are amenable to drugs. There are drugs that reduce blood pressure, treat infections and relieve symptoms of

leg and abdominal swelling. Some are used to correct disorders of rhythm and automaticity.

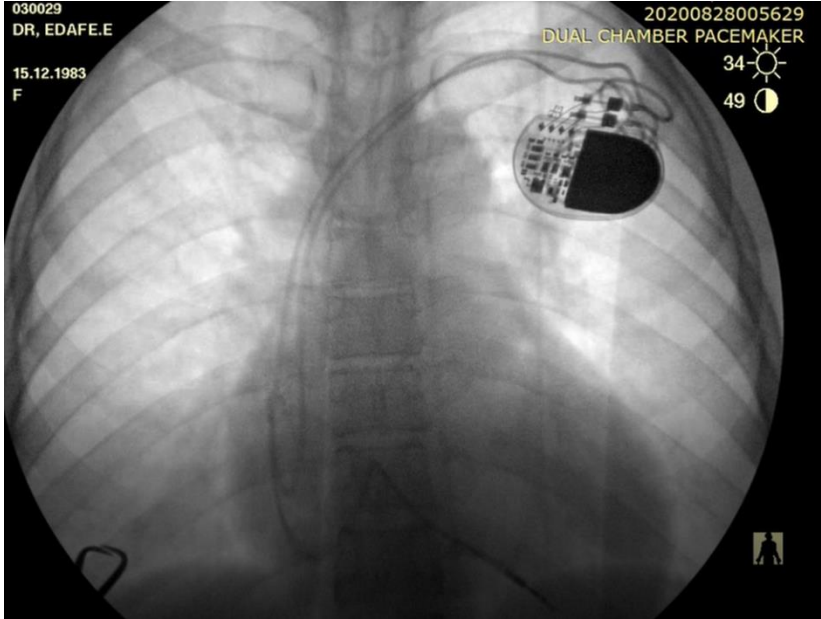
### **Electrical Therapies**

These includes defibrillators and cardioverters. Defibrillators are electrical equipment that discharge electrical impulses into the heart and have the potential of correcting abnormal cardiac rhythms.

### **Pacemaker implantation**

This is a useful tool to correct abnormal electrical conduction and rhythm of the heart. Heart blocks and other rhythm abnormalities can be corrected with the use of pacemaker implantation.

The first artificial pacemaker implantation in Nigeria was in 1974 at the University College Hospital Ibadan. In 1976 the University of Nigeria Teaching Hospital Enugu had its first artificial pacemaker implantation. Today pacemaker implantation consisting of, lead and leadless pacemakers are available in some tertiary health institutions in Nigeria including a few private hospitals.



**Figure 4: Dual chamber pacemaker implantation**

### **Percutaneous Coronary Interventions (PCI)**

When there is a heart attack, the arteries that supply blood to the heart muscles, may be blocked either partially, or totally. In this circumstance, interventional cardiologists can pass a catheter or wire into the coronary vessel, under fluoroscopy to unblock the affected coronary vessel.



Figure 5a: total occlusion of the left anterior descending artery before PCI





Figure 5b: after the precuneus coronary intervention (PCI) with a drug eluting stent

### **Implantable cardioverter defibrillator**

This device is life saving to control abnormal cardiac rhythm that come from ventricular tachycardia and fibrillation. ICD does four therapies for the heart and these include: pacing for bradycardia, anti-tachycardia pacing, cardioversion and defibrillation.

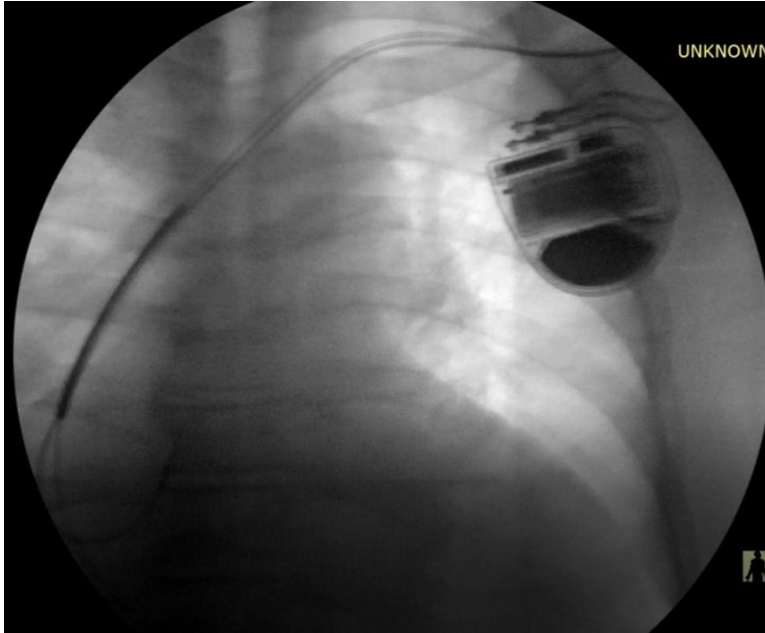


Figure 6: dual chamber ICD

### **Cardiac resynchronization Therapy (CRT)**

This is a new modality for improving the cardiac function especially those with severe heart pump failure. This involves the use of wires and electrical impulses to resynchronize the cardiac rhythm.



Figure 7: cardiac resynchronization therapy

### **Heart Surgery:**

Closed heart surgery involves the operation on the heart without the need to stop its activities. These are for relatively minor and sometimes major operations affecting the heart and blood vessels.

In open heart surgery, the heart pumping activity is stopped completely using appropriate procedures, and opened up in order to do corrective surgery. While the heart is being operated upon, a cardiopulmonary bypass machine is used to substitute the functions of the heart to maintain blood supply to the various organs.

Cardiac surgery is done by cardio- thoracic surgeons. The first open heart surgery in Nigeria was done at the UNTH Enugu with a team led by Professor Febian Udeku with the technical guidance of Dr Yakoub, an Egyptian -Briton, in 1974. The University College Hospital Ibadan had its first open heart surgery in 1978. The UCH team was led by Professor Isaac Adetayo Grillo. Lagos State University Teaching Hospital now also does open heart surgeries.

### **Heart transplant**

In this procedure, the diseased human heart is replaced with a donor healthy human heart. This was started in South Africa by Dr Christian Barnard in 1967. Now the technology is available in many developed countries. Cardiac transplantation service is not yet available in Nigeria.

### **My Life as a Cardiologist**

I got interested in cardiology after my initial specialist training in internal medicine, because of high prevalence of patients with heart and vascular disorders. In 2016, the WHO estimated that non- communicable diseases (NCD) contributed 29% of all deaths in Nigeria and cardiovascular diseases contributed 11% of these deaths.

I trained as a specialist in internal medicine at the University College Hospital Ibadan after I obtained my MBBS degree, from the University of Lagos College of Medicine. I sub-specialized in cardiology at the University College Hospital

(UCH) Ibadan and at the cardiac department of Kings College Hospital, London. My chief trainer in UCH was Professor Ayodele Falase now an emeritus professor; and my chief trainer at Kings College Hospital London was Dr David Jewitt.

My postgraduate training in internal medicine and in cardiology were under the auspices of the National Postgraduate Medical College of Nigeria. Before 1970, Postgraduate medical training was not available in Nigeria and indeed in most of sub-Saharan Africa. Nigerians seeking specialist medical training would have to travel to Europe and North America to obtain postgraduate training. The idea of the National Postgraduate Medical College was mooted in 1970 by Professor John Olu Mabayoje. Professor Mabayoje was then the Registrar of the Nigerian Medical Council, the forerunner of the Medical and Dental Council of Nigeria.

The initial meeting to actualize the setting up of Nigeria's postgraduate medical college was attended by Professor Latunde Odeku, Professor Adeoye Lambo, Professor W V Fowler, Professor Felix Dosekun, Professor B. K Adadevoh and Professor J Olu Mabayoje. . Others were Dr F Foulkes-Grabbes, Dr T O Dada, Dr Bayo Banjo, Dr V F F Oki, Dr A B S Adenifuja, Major A M Jacks and Dr E O Odunjo.

A delegation was thereafter sent to then Western Germany to study their medical postgraduate programmes. The delegation consisted of Professor Akin Adesola, Professor Njoku Obi,

Professor J C Edozien and Professor J. Olu Mabayoje. Following this, the postgraduate regulations and syllabuses were published in 1970. The first basic or primary examination took place in May 1972. Twenty-nine candidates sat the examination and 15 passed. In 1973, 12 candidates sat for the primary examination but only 3 candidates passed. In the early days external examiners were invited from Oxford, Makerere and Dundee among others. The part 1 fellowship examination in internal medicine was held for the first time in 1973. Five candidates sat for the examination but only one passed.

The National Postgraduate Medical College decree was signed on the 14<sup>th</sup> of September 1979 by General Olusegun Obasanjo. The decree initially provided for 13 faculties, a senate and a governing board. The National and West Africa postgraduate medical colleges have saved Nigeria and West Africa from dearth of specialized medical manpower despite the mass exodus of medical practitioners from Nigeria to the United Kingdom, Europe, Middle East, elsewhere in Africa and North America. Nigerian trained doctors and specialists are currently in high demand in many countries of the world.

I came to Port Harcourt, as a young man with my wife and children and was determined to play my role both as a lecturer in the University of Port Harcourt, and as a Consultant Physician/Cardiologist at the University of Port Harcourt Teaching Hospital. The College of Health sciences of the University of Port Harcourt started in 1979, and the University

of Port Harcourt Teaching Hospital started in 1980 both under Professor T. I. Francis of blessed memory. The College of Health Sciences of the University of Port Harcourt is among the 6 medical schools created as part of the 3<sup>rd</sup> national development plan. The others are the medical schools in Calabar, Ilorin, Sokoto, Maiduguri and Jos.

I joined both institutions, the College of Health Sciences and its teaching hospital, as Lecturer I and Consultant Physician in 1984. In the early days the department of medicine had only 3 physicians. But today, the department has 29 lecturers/consultant physicians many of whom were trained by us in the department. I had the privilege of teaching the first set of medical students of this university and have contributed to the training and graduation of over 3000 medical doctors from this university.

I have also in the process contributed to the training of many specialist physicians. In cardiology, 31 cardiologists have been mentored and their training supervised by me. They are today consultant physician/cardiologists in their own rights. One of them became a Professor of Medicine/Cardiology in this University of Port Harcourt. Another would have been a professor by now but for the fact that we do not currently have a governing council.

**Mr. Vice-Chancellor Sir,**

I am grateful to God for these and other accomplishments including being the 6<sup>th</sup> Provost of our College of Health Sciences. I hereby appreciate the provosts who served before me; Late Prof. T. I. Francis, Late Prof. Abiye Obuoforibo. Prof. C. O. Anah, Prof. N. D. Briggs and late Prof. D. D. Datubo-Brown.

During my tenure as provost from 2002 to 2007 the following were achieved among others.

- A) The Port Harcourt Medical Journal was established.
- B) I initiated and presented the position paper in the senate for the establishment of 3 professional programmes of dentistry, nursing, and pharmacy. These programmes have since commenced and have produced professionals in the various fields.
- C) The centre for Medical Research and Training (CERMERT) was established following senate approval.

Let me end this lecture the way I started by quoting William Shakespeare but this time, from the play **Much Ado About Nothing**;

**“I love you with so much of my heart that none is left to protest”**

Thank you for your attention.

### **Bibliography**



- College silver jubilee committee. 25 years of the college of health sciences University of Port Harcourt. Nigeria.
- Compendium for 50<sup>th</sup> anniversary of commencement of postgraduate training in Nigeria NPMCN September 2019.
- Eze J C Open heart surgery in Nigeria .Texas Heart Inst J 2007;34:8-10
- Grillo I A. Open heart surgery in Nigeria: From beginning to date. Ann. IB. PostgraduateMed.2009 7:18-20,
- Malu A. Universities and medical education inNigeria, Nig. Med. J.2010;51 :84-8
- Odia O J. History and evolution of medical practice in Nigeria; 2021. QualiHealth Communications Ltd
- Odia O J & A R George. Law and ethics of medical practice in Nigeria 2<sup>nd</sup> edition.2015 UPPL. QualiHealth Communications
- Odia O J. Professor T I Francis and the making of doctors in Nigeria: A memorial lecture. April 29 2015
- Odia O J &,Unachukwu C N. Management of common medical emergencies 2020 UPPL



**PROFESSOR OSARETIN J. ODIA**  
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Consultant Physician/Cardiologist

Professor Odia was born in Urhonigbe in Edo State on the 3<sup>rd</sup> of May 1951 to Late Donald I. Odia and Felicita E. Odia. He attended Saint Jude's Catholic School Urhonigbe from 1957 to 1961 and Saint John Bosco's Catholic School Ugo in 1962. He gained admission to Government College Ughelli in 1963 and passed the West African School Certificate Examination in Division 1 in 1967. He attended Federal Government College Warri 1968-1969 and obtained the Higher School certificate (HSC) in Zoology, Chemistry and Physics.

He trained at the College of Medicine University of Lagos 1970 to 1975, University College Hospital Ibadan 1977 to 1983 and Kings College Hospital London, England 1980 to 1981. He has

several publications in internal medicine, Cardiology and bioethics to his credit. He is a member, UNESCO chair of the international forum of teachers of bioethics. He was the pioneer chairman of the Research Ethics Committee of the University of Port Harcourt. He is also the pioneer chairman of the University of Port Harcourt steering committee of the UNESCO Chair in bioethics.

**Professor Osaretin James ODIA** is a Professor of Medicine and Cardiology at the College of Health Sciences, University of Port Harcourt, Port Harcourt, Nigeria. He is a fellow of the National Postgraduate Medical College and the West African College of Physicians. He is also a Fellow of the Royal College of Physicians of Edinburgh, Scotland. He was provost of the College of Medicine, University of Port Harcourt from 2002 to 2007.

He is married to Dr Elizabeth Odia, a plant pathologist and are blessed with 5 children and 12 Grand Children.

**Professor Stephen A. Okodudu**

Ag. Vice-Chancellor