ANAESTHESIA -
The Enigma and The Reality, The Challenges and Opportunities.

26th

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OLABISI ONABANJO UNIVERSITY
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PROF. A. O. OYEGUNLE

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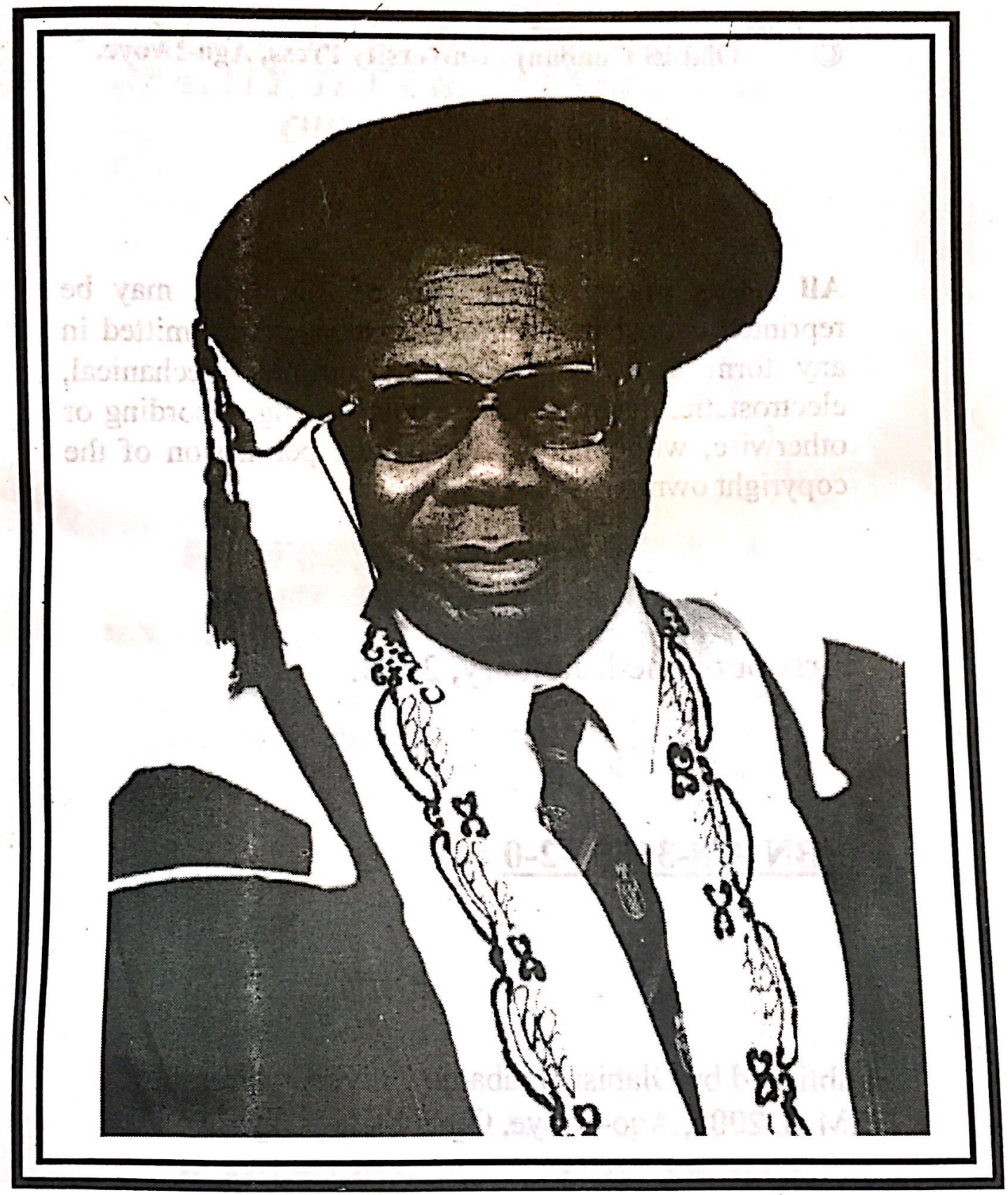

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ANAESTHESIA- *THE ENIGMA AND THE REALITY, THE CHALLENGES AND OPPORTUNITIES*

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OLABISI ONABANJO UNIVERSITY, AGO-IWOYE

The Vice-Chancellor,
Principal Officers of the University,
Provosts of Colleges and The Postgraduate School,
Deans of Faculties,
Colleagues, Friends from Sister Universities, and Institutions
Royal Highnesses, Chiefs, Lords: Spiritual & Temporal
Distinguished Ladies & Gentlemen,
Great OOUites,

I feel greatly honoured to be invited to deliver the 26th Inaugural Lecture of this great University today. The title of my Lecture is **"ANAESTHESIA – THE ENIGMA AND THE REALITY, THE CHALLENGES AND OPPORTUNITIES"**.

This is the first Inaugural Lecture from the Department of Anaesthesia and Intensive Care, Faculty of Clinical Sciences, Obafemi Awolowo College of Health Sciences, Olabisi Onabanjo University.

The Department was one of the first ones created in the College at its inception in 1983.

I am the first Head of Department and have been since December 1993. Before then the Department was coordinated by various lecturers from the Department of Surgery, Faculty of Clinical Sciences, Olabisi Onabanjo University. Many Consultants have come to assist the Department from University of Ibadan and also our students were farmed out for attachment in anaesthesia at the National Orthopaedic Hospital, Igbobi, Lagos.

Anaesthesia, anesthesia;
Anaesthesiology, anesthesiology;
Anaesthetist, anesthetist;
Anaesthesiologist and anesthesiologist;

ALL mean something to those in the specialty around the world. However, our fellow health professionals, our academic colleagues, administrators, patients, the media, governmental and non-governmental bodies, politicians and the public at large often do not understand who anaesthetists are, what we do or how we are trained – whatever the spelling[1] How did it all begin? It started a long, long time ago – the ***FIRST MEDICAL FEAT*** ever performed was Anaesthesia: "Then the Lord God made the man fall into a ***DEEP SLEEP*** and while he was ***SLEEPING***, He took out one of the man's ribs and closed up the flesh".[2] Gen 2:21

This ***DEEP SLEEP*** was the first medical feat, and the first of what we now call ***ANAESTHESIA***.

The name ANAESTHESIA was suggested by Oliver Wendell Holmes in 1846. The word is derived from Greek "a" meaning without, and "aesthesis" meaning perception. Anaesthesia, therefore means "without perception" or "without feeling" or "loss of feeling" or "loss of painful sensation".

The modern definition of anaesthesia provided by the American Board of Anaesthesiologists states that anaesthesiology is the practice of medicine providing insensibility to pain during surgical, obstetric, therapeutic and diagnostic procedures. It also ensures that the patient suffers no harm during the operation.[3]

Anaesthesia – as we know it today was first used by *WILLIAM THOMAS GREEN* **MORTON** – (1819-1868) of Boston, a dentist who gave ether vapour at the Massachusetts General Hospital on Friday 16th October, 1846 to Gilbert Abbott. October 16th of every year is now called **"Ether Day"**

The first reference to anaesthesia appeared in a medical journal on 21st October, 1846.

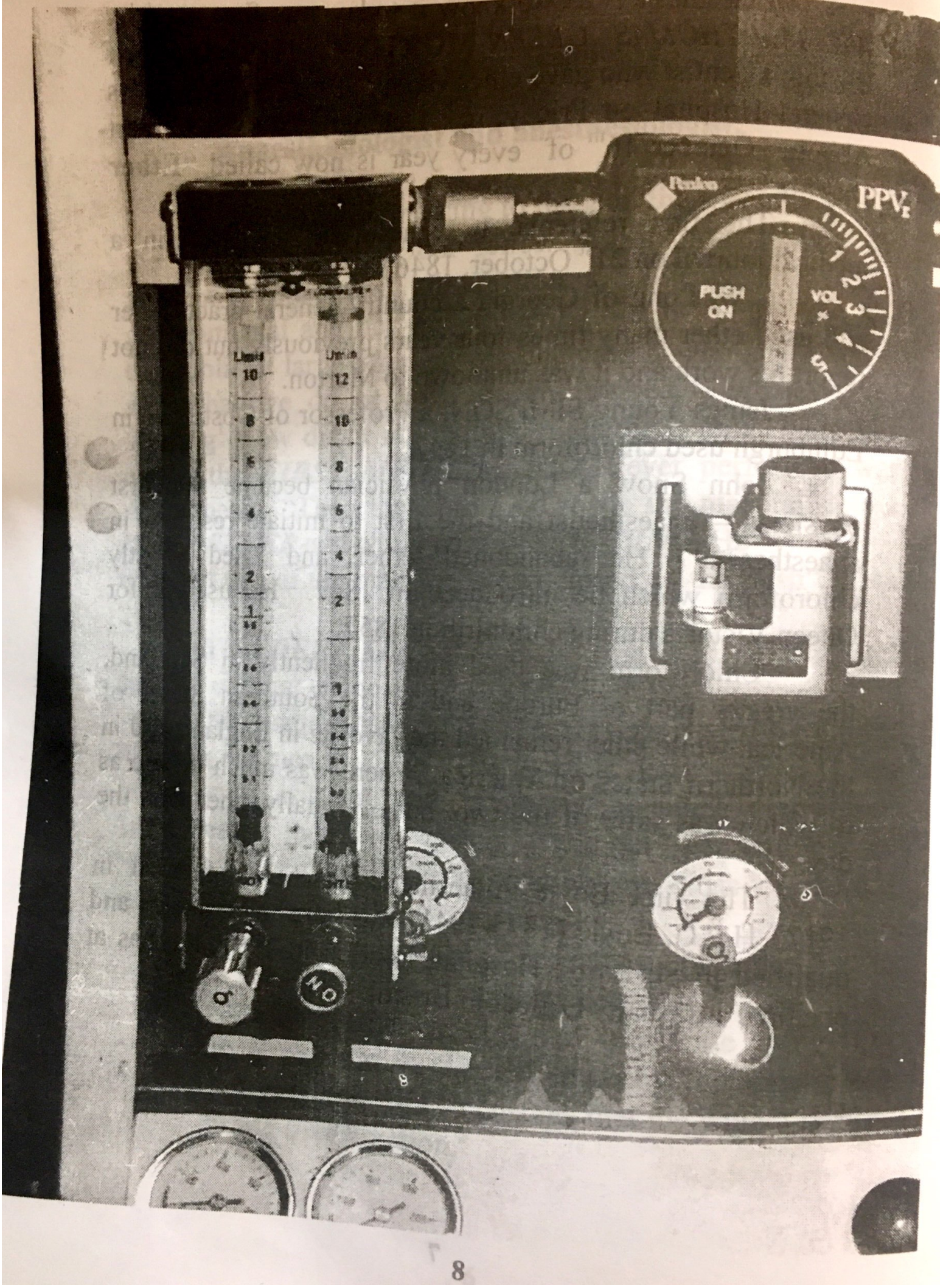
C.W. Long of Georgia a country general practitioner had used ether many times four years previously but did not report his work and it was unknown to Morton.

James Young SIMPSON, a Professor of Obstetrics in Edinburgh used chloroform in 1847.

John Snow a London physician became the first physician – anaesthetist and the first to initiate research in anaesthesia. He abandoned ether and used mostly chloroform which he introduced in 1847. He used it for Queen Victoria during childbirth in 1857.

Chloroform was used more frequently in Scotland, the greater part of Europe and in the Southern States of America, while ether remained the favorite in England and in the Northern States of America. There was much debate as to which was safer of the two, but eventually ether won the day.

The first Boyle Anaesthetic Machine appeared in 1917. H.E.G. Boyle (1875-1941) was born in Barbados and qualified in St. Bart's Hospital, London in 1901; he was at one time a Casualty Officer in Bristol.



The condition described by Holmes was of a patient rendered temporarily unconscious and insensitive to the pain of surgical operation following the inhalation of ether vapour or Nitrous Oxide (laughing gas).

Insensibility to pain does not necessarily imply unconsciousness or total unawareness and lack of sensation. Insensibility to pain may also be provided by **LOCAL ANAESTHESIA** where the anaesthetic drug is usually injected into the tissue to numb only the specific location in the body requiring minor surgery or by **REGIONAL ANAESTHESIA** where an injection is made near a cluster of nerves to numb the area of the body that requires surgery. In these procedures patients may remain awake or they may be given a sedative.

This development imposed the necessity for distinguishing two methods.

1. ***GENERAL ANAESTHESIA*** – involving loss of consciousness and
2. ***LOCAL ANAESTHESIA*** – securing freedom from pain with the patient awake.

Local analgesia made its appearance in 1884 when Carl Koller of Vienna used cocaine for topical analgesia in the eye. Infiltration and regional block followed from this. ***Spinal analgesia*** was first described by August Bier in Kiel in 1898 and ***extradural (epidural) block*** by Fernand Cathelin and Jean Athanese Sicard in Paris in 1901.

RALPH M. WATERS (1883-1979) of University Hospital in Madison, Wisconsin was made a full Professor of Anaesthesia in 1933, the first in the world, predating Oxford by 4 years which produced the first British Professor R.R. Macintosh in 1937.

Apart from being the first Professor of Anaesthesia, R. M. Waters was noted for:

i. *Insisting on training for anaesthetists by creating an academic department.*
ii. *Encouraging note taking by means of Punch Cards.*
iii. *Introducing cyclopropane*
iv. *Introducing the "to & fro" carbon dioxide absorption system.*
v. *Pioneering use of thiopentone and*
vi. *Endobronchial intubation*

The first Nigerian to be made a Professor of Anaesthesia was Professor S.A. Oduntan of the University of Ibadan in 1971. Other pioneers of Anaesthesia in Nigeria include P. Nwachukwu, Fowler, Magbagbeola, Ezi-Ashi and Sodipo.

THE ENIGMA: How Anaesthesia Is Produced – Or The Mechanisms Of Anaesthesia.

There has been ***Six*** International Conferences on "Molecular and Basic Mechanisms of Anaesthesia". They were held in 1974, 1979, 1984, 1990 and 1997. The sixth took place in Bonn in June 2001. Leading clinical anaesthetists and basic scientists discussed recent advances in mechanisms of anaesthesia from the in-vitro molecular to the in-vivo Central Nervous System network level. From the conference proceedings it is established that there are numerous targets of anaesthetic actions at all levels of integration within the Central Nervous System.

There have been many theories but the search for unitary or simple mechanisms of anaesthesia has not been successful so far. **It is enigmatic**. We still do not have generally accepted hypotheses for the mechanisms of general anaesthesia in spite of many attempts. This is a reflection of its complexity. Perhaps a paradigm shift is called for.

THE REALITY – Despite the lack of generally accepted hypothesis for anaesthesia mechanisms, general anaesthesia has become so safe since its introduction just over 150 years ago that the mortality associated with it has become almost immeasurably small – less than one death solely attributable to anaesthesia occurs per 200,000 procedures.[4]

THE ANAESTHETIST: Who is the Anaesthetist?

Most people will meet an anaesthetist at some stage in their life.

In a survey conducted in November 2002 among 120 non-medical students of Olabisi Onabanjo University , selected at random, the following information was gathered:
66.6% do not know who an anaesthetist is and what he does.
33.3% believe we may be doctors but 35.8% have no idea what we are.
82.5% have no idea whether we receive any specialist training like Surgeons or Gynaecologists.
55% have no idea what an Intensive Care Unit is or who runs it but 22.5% feel that it is the Nursing Sister that is in charge.
70% know nothing about Pain Clinics or those who run such clinics.[5]

The Anaesthetist is one who devotes his medical time **exclusively** to the practice of anaesthesia. He

administers anaesthetic drugs and gases to patients to render them insensitive to the pain of surgical operation. He does much more than that and we shall now examine the ***CHALLENGES AND OPPORTUNITIES*** or ***THE ROLE AND SCOPE OF ANAESTHESIA AND THE ANAESTHETIST*** in a University and Teaching Hospital setting.

Anaesthetists represent the largest hospital specialty, they are clinical partners in surgical and medical teams. They play important roles, not only in the operating theatre but also in Resuscitation, Intensive Care, Paediatrics, Obstetrics, Radiology, at disaster sites and medical emergencies and also in the management of acute and chronic pain.

The key message is that anaesthesia, critical care and pain management are clinically and technologically complex activities which have a very humane side. A simple, easy to remember message for the public is that we, anaesthetists, keep people alive and well during surgery and other situations and we do so over many million times per year.

THE ROLE AND SCOPE OF 'ANAESTHESIA' IN A UNIVERSITY/TEACHING HOSPITAL SET-UP

1. Pre-Operative evaluation of patients (Pre-Anaesthetic assessment)
2. Administration of Anaesthesia for surgical operations.
3. Supervision of Recovery from Anaesthesia and Surgery.

4. Resuscitation and Intermittent Positive Pressure Ventilation (IPPV)
5. Intensive Therapy (i.e. The management of critically ill patients in INTENSIVE CARE UNITS).
6. Pain Therapy – basically the management of patients with chronic pain.
7. The Evaluation of respiratory Function, and application of respiratory therapy in all its forms.
8. The Supervision, teaching and evaluation of performance of both medical and paramedical personnel involved in anaesthesia, respiratory and critical care.
9. The conduct of research at the Clinical and Basic Science levels to explain and improve the care of patients.
10. The Administrative involvement in Hospitals, Medical Colleges, and Universities necessary to implement these responsibilities.

These are the challenges and opportunities in Anaesthesia.

PRE-OPERATIVE EVALUATION AND PRE-MEDICATION

The patient about to undergo an operation usually receives a visit from an anaesthetist for the purpose of obtaining a previous anaesthetic history, performing relevant physical medical examination, allowing the patient to ask questions, state his anxieties and to be informed as to the

likely plan of campaign leading to the actual anaesthetia and finally prescribing pre-operative medication as appropriate.

The incidence of co-existing medical disease in the surgical patients is high and this pre-operative visit gives an opportunity for this to be detected and treated or controlled before the operation.

Relevant physical examination would detect in advance problems that may interfere with the conduct of anaesthesia such as mobility of jaws and neck, intubation hazards, state of veins among others.

Drug therapy and drug allergy, would be known and when necessary precautions taken. Special investigations may need to be ordered such as Blood, Urine, X-ray, ECG among others.

HERBAL MEDICINES

There is increasing concern over the possible detrimental effects of herbal medicines on the peri-operative period. Perceived by the public as 'natural' and therefore safe, herbal medicine may lead to adverse events during the peri-operative period. Self-administration of herbal medicine is common in patients presenting for anaesthesia. The anaesthestists and public have to be aware because of the patients' potential for side effects and drug interactions.[6] Patients do not often discuss this form of medication and anaesthetists often fail to enquire about their use. Current

available data suggest that all herbal medicines should be stopped two weeks before surgery.[7]

Herbs commonly used among our elites include **garlic, ginseng, ginkgo biloba.** While something is known about these herbs, the pharmacology of most of our **native herbs** in Nigeria is still shrouded in secrecy. There is need for the veil of secrecy to be removed and for these herbs to be investigated.

Garlic enhances anti-platelet activity and should be avoided in patients on aspirin and other non-steroidal anti-inflammatory drugs (NSAID).

Ginseng should be avoided in patients on anticoagulants, aspirin and ***NSAIDs***. The combination of ginseng and mono-amine oxidase inhibitors (MAOI) should also be avoided.

NSAIDs should be avoided in patients on **gingkgo biloba.**

Grapefruit Juice interacts with some medication that are commonly consumed together at breakfast. This interaction results from the inhibition of intestinal cytochrome P450 enzyme systems and therefore results in an increase in the serum concentration of medication such as **calcium channel blockers, cyclosporin** and **antihistamines.**

Ginger: Caution should be taken with those taking anticoagulants and antiplatelets drug.

Problems that may arise with patients taking herbal medicines peri-operatively include:

Changes in heart rate and blood pressure during anaesthesia (peri-operative anhythmia)

- *Coagulation Disturbance: This is of concern in regional anaesthetic techniques and may also lead to unanticipated excessive bleeding peri-operatively.*
- *Potentiation of anaesthetic agents and prolongation of anaesthesia.*
- *Decreased effectiveness of anaesthetic agents.*
- *Hepato-toxicity(i.e liver damage) especially when used with other hepatotoxic drugs.*
- *Immunosuppression which may lead to poor wound healing and infection.*

The anaesthetist may choose to prescribe some pre-operative medication for a variety of reasons choosing drugs from his armamentorium.

In a study at the College of Medicine, University of Lagos, I used **"thalamonal"** a mixture of narcotic analgesic (fentanyl) and a neuroleptic drug (droperidol) as a premedicant for 78 Nigerians undergoing a variety of surgical procedures with satisfactory results. Droperidol is not much used again for premedication but fentanyl continues to be useful as a premedicant and analgesic in anaesthesia.[8]

ADMINISTRATION OF ANAESTHESIA

Most members of the public are unaware of the many clinical decisions which need to be taken by the anaesthetist during the course of surgery to ensure a safe and optimum anaesthesia.

Surgery is often divided into "**minor**", "**intermediate**" and "**major**". There is no such sub-division in anaesthesia. Anaesthesia is always **major**.

INDUCTION OF ANAESTHESIA

Thiopentone (a thio-barbiturate) remains the most popular induction agent in anaesthesia. It was introduced into clinical practice by Lundy of the Mayo Clinic on June 18, 1934 and by Waters of Madison on March 1934. The former being more influential. Thiopentone was originally employed as a sole agent and this led to many deaths e.g. at Pearl Harbour in December 1941.[9] Ironically the trend is now for the use of newer agents as sole agents e.g. ***propofol*** being used for Total Intravenous Anaesthesia (TIVA).

Many agents have been tried to supplant or replace thiopentone as the most popular induction agent in anaesthesia, and to avoid its untoward effects.

To this end Oyegunle and Fowler employed **Althesin – a steroid induction agent** on 96 unpremedicated patients undergoing a variety of surgical procedures on out-patient basis. Although **althesin** was found to be useful for minor surgery in outpatients (ambulatory anaesthesia); incidences of excitatory phenomena and hypersensitivity later led to the withdrawal of the product from the market.[10]

I also used **etomidate** for induction of anaesthesia in 100 patients scheduled for a variety of elective surgical procedures. This drug which was found to be cardio stable has found a place in the induction of anaesthesia especially in poor risk patients and patients with allergic tendencies or when thiopentone would appear to be contra-indicated.[11]

MONITORING

There are some observations that can be made under anaesthesia without any form of instrumentation, following the traditions of medicine, i.e. by ***Inspection, Palpation, Percussion, and Auscultation.***

In 1992, the World Federation of Societies of Anaesthesiologists (WFSA) adopted a set of minimum requirements for monitoring during anaesthesia.

These include:

1. *BLOOD PRESSURE MONITORING*
2. *ELECTROCARDIOGRAM (ECG)*
3. *MEASUREMENT OF INSPIRED OXYGEN TENSION*
4. *MEASUREMENT OF OXYGEN SATURATION IN THE BLOOD*
5. *MEASUREMENT OF EXPIRED CARBON DIOXIDE*
6. ***THE CONSTANT PRESENCE OF AN ANAESTHETIST IN THE OPERATING ROOM***

The Nigerian Society of Anaesthetists (NSA) issued a similar guideline in the year 2000.[12]

It is SAD to report that not many of our Departments of Anaesthesia in our Colleges of Medicine and Teaching Hospitals have these minimum requirements, not to speak of our General Hospitals, Cottage Hospitals, Health Centres and

Private Hospitals where anaesthesia is regularly administered for surgical operations.

SUPERVISION OF RECOVERY FROM ANAESTHESIA AND SURGERY

The first Post-operative Observation Room (Recovery Room) was opened in the United Kingdom in 1955.

Recovery from anaesthesia is usually uneventful and routine but problems may occasionally arise.

The post-operative observation room is usually ***situated*** close to the operating theatre, ***supervised*** by members of the Anaesthesia and Surgical departments and ***manned*** by specially trained nurses. Immediate post-operative problems are quickly detected and treated promptly and effectively.

RESUSCITATION

One of the most significant functions of an anaesthetist is the clinical management and teaching of cardiac and pulmonary resuscitation (CARDIOPULMONARY RESUSCITATION, CPR).

Some have suggested that the first successful mouth to mouth resuscitation was described in the Bible. In the second Book of Kings, Chapter 4 Verse 34, there is a description of the revival of an apparently dead child by the Prophet Elisha – "And he went up, and lay upon the child and 'put' his mouth upon his mouth, and his eyes upon his eyes

and his hands upon his hands, and he stretched himself upon the child, and the flesh of the child waxed warm".

The anaesthetists have been interested in cardiac arrest since 1846.

The first external defibrillation of the human heart was in 1956. External cardiac compression became popular from 1960.

The first successful CPR outside the operating theatre was in 1956. It is the task of the anaesthetist to provide and teach CPR. CPR should form part of the curriculum of every young doctor. In addition, CPR research and administrative functions are often part of the anaesthetists's responsibilities. Administrative duties may include review of CPR equipment and its function, and the establishment of an organised response within the hospital when cardio-pulmonary arrest occurs.

To this end **Resuscitation Councils** have become firmly established in United Kingdom, Europe and America and we in Nigeria have gone far in the establishment of the Resuscitation Council of Nigeria. The initiative came from the Nigerian Society of Anaesthetists (NSA). Many meetings have been held and I am the protem Chairman of the Resuscitation Council of Nigeria.

CPR is categorised as ***Basic Life Support (BLS). Advanced Life Support (ALS)*** and ***Prolonged Life Support (PLS).***

BLS consists of provision of a patent upper airway (***A –airway***), expired air ventilation (***B – breathing***) and circulation of blood by closed chest cardiac compression (***C-circulation***). The ABCs of BLS may be instituted by trained laypersons, as

well as by physicians, without the need for specialised equipment.

ALS includes the use of specialised equipment to maintain the airway, external defibrillation, drug therapy and post-resuscitation life support.

The highest survival rates and quality of survival are attained when BLS is initiated within 4 minutes from the time of cardiopulmonary arrest and when the ALS is initiated within 8 minutes.

Regardless of time from cardiopulmonary arrest to initiation of CPR, more than 6 minutes of closed chest cardiac compression is associated with increased neurological morbidity.

Anaesthetists have the professional academic background in physiology and pharmacology to be able to understand the nature of injuries caused by **massive trauma** from any cause, and anaesthetists therefore play a vital role both in the initial resuscitation of casualties and in their continued treatment in an intensive care setting.

INTENSIVE CARE UNIT

The first permanent Intensive Care Unit in the world was established by an anaesthetist, Alex Crampton Smith, at the Churchill Hospital in Oxford in 1954.

Intensive Care has been defined as 'a service for patients with potentially recoverable conditions who can benefit from detailed observation and invasive treatment that can safely be provided in general wards or high dependency areas.[13]

Depending on his level of commitment, an anaesthetist may be a full-time member of a pain clinic, or at the other extreme may provide occasional diagnostic and therapeutic nerve blocks in the role of a consultant.

A Pain Clinic consists of a group of physicians from different specialties including anaesthesia, who interact to solve the problem of chronic pain. Anaesthetists are frequently directors of pain clinics. Patients are usually referred to such clinics by their primary physician.

OBSTETRIC ANALGESIA, ANAESTHESIA AND MATERNAL MORTALITY

One of the areas in which anaesthetists perform vital roles is in the provision of obstetric analgesia for pain-free labour, usually in the form of **epidural analgesia** and also in the provision of anaesthesia for Caesarian sections and in the prevention and reduction of maternal mortality in Caesarian section.

Obstetric analgesia has not gained firm footing in Nigeria because of shortage of resources and lack of anaesthetic manpower. This service is taken for granted in more developed countries.

Caesarian section is being done with increasing frequency because properly executed, it carries only a little more risk for the mother and often less risk for the infant, than vaginal delivery, attempted in the presence of obstetric complication.

The anaesthetist has important roles to play in the prevention of maternal mortality.

Maternal deaths depend to a large extent on the indication for operation, the form of anaesthesia, its method of administration and the care taken before, during and after the operation.

In a **retrospective review** in Lagos and Sagamu during an 8 year and 5 year period respectively, I recorded a Caesarian section rate of 9% and 10.1% in Lagos and Sagamu. About 55% of these operations were done as emergency. The indications for the operation were:

Feto-pelvic Disproportion	-	33.4%
2 Previous Caesarian Sections	-	14.9%
Prolonged Labour	-	10.6%
Foetal Distress	-	10.3%
Ante-partum Haemorrhage	-	9.7%
Pre-eclampsia and eclampsia	-	7.9%
Miscellaneous	-	4.7%

95% had general anaesthesia and **4.9%** had regional anaesthesia. There were 16 deaths giving a maternal mortality rate of **1.1%** for Caesarian section. 10 of the patients who died were unbooked and 12 were operated as emergency. **Only 2 of the deaths were directly due to anaesthesia.**[17]

In another survey by Abudu and Olatunji, over a 10 year period, the Caesarian mortality rate of **0.99%** was recorded.[18]

Facts emerging from these and other studies in Nigeria indicate that:

1. The most common causes resulting in maternal deaths are: from Caesarian sections, pre-eclampsia and eclampsia, haemorrhage and unduly prolonged labour.
2. As expected, deaths in unbooked cases were many times more than in booked cases.
3. Maternal mortality increased with age and parity – risk being greater in women over 35 years of age, safest age being 20-29 and safest parity being 1 to 3. With **increasing** maternal age the incidence of diseases and complex medical problems increase, all of which complicate anaesthesia especially in emergencies.
4. Up to the year 2000, General Anaesthesia is more popular in Nigeria for Caesarian section as against the trend in Europe and America where General Anaesthesia has declined to a small percentage.
5. As expected deaths are more common with emergency Caeasarian section than with elective ones.

The clinical roles of the anaesthetists in obstetrics have long extended beyond the operating theatre:

(a) Resuscitation
(b) Appropriate physiological monitoring and
(c) Intravenous and blood products administration

are all activities in which anaesthetists' role is paramount.

Substandard care in these areas will lead to deaths associated with heamorrhage, hypertension (pre-eclampsia and eclampsia) aspiration, thrombo-embolic disease among others.

Reduction of maternal deaths after Caesarian section will follow recognition and attention to these details as well as:

(a) Ready availability of trained anaesthetic personnel
(b) increasing use of blood banks and availability of blood substitutes and blood products
(c) emphasis on this use of regional procedures in obstetric anaesthesia in Nigeria.
(d) Proper record keeping in health institutions in Nigeria to identify problems so that adequate solution can be planned.

In the United Kingdom for example, there has been a successful and longest running (50 years) medical audit in the world, in the triennial reports on **Confidential Enquiry into Maternal Deaths** (CEMD) for United Kingdom and with successive reports there has been a regular reduction in the number of deaths due to anaesthesia. For the 1997/1999 period there were only 3 deaths due to anaesthesia and a rate of less than **0.3/100,000**.

ANAESTHETIC MANPOWER

Generally, there is international shortage of Anaesthetists but the shortage is more acute in the developing countries.

In Europe and the Americas, there is about one Anaesthetist for 10,000 people. This is even below the ideal.

In Nigeria with an estimated population of about 120 million, we have below 400 anaesthetists most of them in the capital cities.

Coming nearer home in Ogun State with a population of about 5 million, there are only about 12 anaesthetists with some form of post-graduate qualification in Anaesthesia.

In Olabisi Onabanjo University Teaching Hospital, there is only one Consultant Anaesthetist to 18 consultants in Surgical departments, Obstetrics and Gynaecology.

In the 20 years of its existence, the National Postgraduate Medical College has produced 2,253 Medical & Dental Specialists across the 14 Faculties:

1.	***Surgery***	-	***343***
2.	***O & G***	-	***291***
3.	***Internal Medicine***	-	***282***
4.	***Pathology***	-	***220***
5.	***General Medical Practice***	-	***208***
6.	***Public Heath***	-	***199***
7.	***Pediatrics***	-	***172***
8.	***Ophthalmology***	-	***130***
9.	***Radiology***	-	***102***
10.	***Dental Surgery***	-	***87***
11.	***Psychiatry***	-	***86***
12.	***Anaesthesia***	-	***64 (2.8%)***
13.	***Oto-Rhino-Larynyology***	-	***50***
14.	***General Dental Practice***	-	***19***

Anaesthesia only accounted for 64 of these i.e. 2.8%. There are many factors responsible for this shortage:

1. CAREER CHOICE:

There is supposed to be no glamour in anaesthesia. This fate is shared by some other specialties such as Pathology, Radiology and Anatomy.

The economical aspect does not encourage the production of Anaesthetists. Anaesthetists work in the background. Most patients only know their surgeon and remember them at festive times but forget the Anaethetists. The mass communicators only mention the surgeons when dramatic medical feats are performed. All these should change.

A survey made just before the qualifying examinations in December 1995 on OOU final year medical students revealed the following. Of the 46 candidates who were about to take the examination, 40 responded to a questionnaire of the specialty they would like to take up in clinical sciences.[19] The following is the result:

Surgery	***12***
Obstetrics & Gynaecology	***11***
Medicine	***7***
Paediatrics	***2***
Anaesthesia	***2***
CMPC	***1***
Radiology	***1***
Not sure	***4***
	40

This was an improvement from the study of Akinyemi & Soyannwo at Ibadan in 1980 when none of the 55 final year students chose anaesthesia.[20]

2. **BRAIN DRAIN**

Brain drain is not peculiar to Anaesthesia, but the majority of the first and second generation male Nigerian Anaesthetists have spent the greater part of their professional life seeking greener pastures particularly in the Middle East.

At Obafemi Awolowo University, Ile-Ife, Fapinle in 2002 found that none of the 67 final year students chose anaesthetic as their specialty of first choice.

It is gratifying to state that since my time at Olabisi Onabanjo University, four Alumni have taken up anaesthetic as a career. All have passed their Primary Fellowship Examination and one has even passed the Part 1 Final Fellowship Examination. (More doctors are applying to join and waiting for the embargo on employment in Ogun State to be lifted).

THE WAY FORWARD

What is the way forward to actualise the potentials of Anaesthesia?

1.)ur young doctors should not pay too much attention) glamour. The so-called popular specialties are now being flooded.

Anaesthesia, although demanding, is challenging, there are better prospects nowadays, there is job

security and there is plenty of room at the top for the serious-minded, diligent and hardworking doctor. With better conditions of service in the University and Teaching Hospitals, more doctors are coming forward for postgraduate training in Anaesthesia.

2. The Federal Government, State Governments and Non-governmental organisations should pay special attention to the growth of Anaesthesia by sponsoring doctors to the Teaching Hospitals for post-graduate training. These doctors would eventually man the State Hospitals and Health Centres.

3. The parents of our students and young doctors, our philanthropists, and corporate bodies can contribute a lot by taking interest in Anaesthesia and Intensive Care by donating books and journals, anaesthetic, resuscitation and Intensive Care equipment etc to develop, improve and sustain the specialty of anaesthesia.

The Vice-Chancellor Sir, Anaesthesia is **enigmatic**, it is safe in **reality**.

It is full of **Challenges and Opportunities**.

I am an Anaesthetist, I should not apologise if I have succeeded in putting you to sleep but I am now imploring you to wake up.

ACKNOWLEDGEMENT

First and foremost, I would like to thank and praise the Lord who has been with me through all the chances and changes of this life, and who has always provided ample and diverse opportunities for me.

"Sometimes, our plan does not unfold
The way we thought it would
But God is always in control
To use it for our good". Sper

I thank God for showing me that *'delay is not denial'*, for proving to me, as in the words of Habakkuk 2:3 that "*the vision is for an appointed time though it may tarry, it will surely come*"!

I will always be grateful to my late father, Chief Emmanuel Adeniye Oyegunle, who died 111/2 years ago, for the confidence he had in me and for investing heavily in me by sending me to England to study medicine while he was a lowly paid civil servant in the Nigerian Railway Corporation. He regarded me as the ***crown*** on his head. May his soul continue to rest in peace.

I am grateful to my mother for her motherly love and care. She had, on occasions, to sell her clothes to keep me afloat while a medical student. She is alive but old age has prevented her from being here today.
My brothers and sisters and their spouses are very much present here, and I thank you for your love and followerhood.

In particular, I thank my brother, Mr. S.K. Soyemi, who has loyally and faithfully helped me with my personal affairs when academic pursuits make it difficult for me to do so personally before and now.

I salute my teachers and mentors, who have made it possible for me to get this far. Late *Mr. N.O. Paseda* was my primary school proprietor and Head Teacher. He was the first to detect the teacher in me. I later learnt that he hailed from Ago-Iwoye. My secondary school teachers who took particular interest in me were late Cannon D.A. Odutayo, my former Principal at Eko Boys High School; Mr. V.G. Chinwah, my Maths teacher, and Pa Adefule, my English teacher - one of his sons is the HOD, Anatomy in our College. I salute them all.

My interest in Anaesthesia was kindled by Late Dr. John Challenger and sustained by Drs. Baxter, Zorab, and Baskett all of Bristol. They invited me back to Bristol for my postgraduate training. Back, in Nigeria,
Late Prof. Shirley Fleming, of Toronto, Canada, who started the Department of Anaesthesia, in Lagos, did a lot to keep me in Anaesthesia and in University of Lagos (UNILAG). I thank Prof. V. Fowler, my mentor, confidant, and friend; and also, my '*egbons*' in Ibadan, Prof. S.A. Oduntan and Prof. J.A.O. Magbagbeola.

We cannot practise Anaesthesia in isolation. I am grateful for the cooperation and comradeship of my colleagues in Anaesthesia, Surgery, Obstetrics & Gynaecology and other

specialties in all the Institutions where I have practised. Gone are the days when the Surgeons would say and I quote "Anaesthetists should be chained to their machines to make sure they are there to do their job"!

I owe special gratitude to the entire family of Anaesthetists in Nigeria; to the members of the Faculty Board of Anaesthesia, Senate members, and members of the Governing Board of the National Postgraduate Medical College of Nigeria with whom I have worked closely for the past four (4) years as Chairman of the Faculty of Anaesthesia.

Olabisi Onabanjo University has been good to me and has given me the opportunity to rediscover myself. I am very grateful for this. I pray for the repose of the soul of Late Prof. F.A. Akesode, former Provost of OACHS and former Vice-Chancellor of LASU (Lagos State University), for encouraging me to cast my lot with OOU, from 1993.

I am grateful for the opportunity of working with former Vice-Chancellors of this University – Prof. O.Y. Oyeneye and Prof. Layi Ogunkoya, the Registrar, the Bursar, and the University Librarian, the Provosts and Deans and other colleagues.

I thank my students, past and present, students of OACHS and other students, present here, residents in Anaesthesia and other residents, my colleagues in OACHS and OOUTH, the Board of Management , Olabisi Onabanjo University Teaching Hospital, Chief Medical Director and Chairman, Medical Advisory Council, OOUTH and all members of staff of OOUTH.

When the present Vice-Chancellor of OOU, Prof. Afolabi Soyode visited us, in Sagamu soon after assumption of duties, I was the Dean of Faculty of Clinical Sciences. I confided in someone, present here today, that the personality and enthusiasm of the Vice-Chancellor impressed me so much and that I would like to do business with him. This was at a time when I had to decide whether I should finish my tenure as Dean and return to my Department or contest for the post of Provost of the College.

Mr. Vice-Chancellor, Sir, your tenure has witnessed unprecedented growth in the College in terms of infrastructure and in terms of elevation of deserving staff. I am grateful for the opportunity of working with you, Sir, and for your genuine interest in the affairs of OACHS. We believe this is just the beginning of our growth and that we can be sure of your support at all times. Thank you, Sir.

I thank all the distinguished guests present, the ***Ologere*** of Ogere and his Chiefs, members of Ogere Community, present here, members of Ogere Club and members of ~~my~~ Church in Ogere, present here, members of the PTF (OACHS), present, my in-laws from Warri, and friends.
I am grateful to all members of staff of the Provost's immediate office, for their invaluable assistance in the preparation of this lecture.

I have three older children – **Victoria, Nike, and Deji**. Two of them had wanted to come for this occasion but the date of my inaugural lecture changed and they lost some

money in booking and so did not want to take a chance again. They are with us in spirit.

I have, here, **Dupe and Funke**, my second generation children, or *children and grandchildren rolled in one.* I thank you for keeping me happy and keeping me young at heart.

I thank **my wife, Vicky,** for your enduring spirit, love, and encouragement, for taking on the responsibilities we should both be sharing.
I thank you and hope that one day, you would be doing what I am doing today.

Mr Vice-Chancellor, Sir
Principal Officers of the University
Provosts of Colleges and Postgraduate School
Deans of Faculties
Colleagues, Friends from Sister Universities and Insitutions
Royal Highness, Chiefs, Lords: Spiritual and Temporal
Distinguished Ladies and Gentlemen

Thank you all for your presence and attention. May God bless you all.

Prof. A.O. Oyegunle

REFERENCES

1. Struning, L. (2000) Anaesthesia 55, 941-2.
2. Good News Bible. Genesis 2:21.
3. American Board of Anaesthesiology. Booklet of Information; Raleigh: ABA 1998.
4. Fleischer, LA. Risk of Anaesthesia. In Miller RD et al eds. Anaesthesia Philadephia, London, Toronto, Montreal Churchill Livingstone 2000 795-823.
5. Emanuel EA, Adeotan, OO, Oyegunle AO, (2002). Personal Communication.
6. Skinner, CM; & Rangasani J (2002). Pre-operative Use of Herbal Medicines. Br. J. Anaesth. 89 (5) 792-5.
7. Hodges, PJ & Kam PCA (2002). Peri-operative implications of herbal medicines. Anaesthesia (57) 889-899.
8. Oyegunle A.O. (1974). Premedication with Thalamonal. West African J. of Pharmacology & Drug Res. Vol. 1 No. 2, 73-78.
9. Halford F.J. (1943). Anaesthesiology 4, 67.
10. Oyegunle A.O. & Fowler W.V. (1975). Althesin Anaesthesia – Clinical Trial. Nig. Med. J. Vol. 5 No. 2: 140-143.
11. Oyegunle A.O. (1972). Induction Characteristics of Etomidate – A new anaesthetic agent. West Afr. J. of Surg. Vol. 2 No. 1; 57-61.

12. Nigerian Society of Anaesthetists – Standard (Guidelines) for the practice of Anaesthesia in Nigeria, 2000.
13. Dept. of Health. Report of the Working Party on Guidelines on Admission & Discharge from ICU & High Dependency Units 1996.
14. Oyegunle Ayo O. and Oyegunle V. Adidi (1997): The ICU in a Young Nigerian Teaching Hospital. The Sagamu (1994-97) Experience – A retrospective study. Afr. J. of Anaest. & Intensive Care. Vol. 3. No. 2.
15. Ffoulkes-crabbe D. (1974). The Intensive Care Unit of LUTH – An Anaesthetists' Experience. Nig. Med. J. 7: 50-55.
16. Oji (1987). Development of an ICU at JUTH 1982-85. West Afri. J. Med. 6: 91-98.
17. Oyegunle AO. (1976). Caesarian Section & Maternal Mortality in LUTH: Nig. Med. J. Vol. 6. No. 2: 201-205.
18. Olatunji AO and ABUDU OO (1996). A review of maternal mortality in LUTH. Nig. Med. Pract. 31: 2-6.
19. Oyegunle AO (1996). Personal Communication.
20. Akinyemi OO & Soyannwo OA (1980). The Choice of Anaesthesia by Undergraduates in a Developing Country. Anaesthesia 35: 712-714.

21. Fapinle A.I (2002) Anaesthesia as a carrer- the influence of undergraduate education in a Nigerian Medical School.

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