EDITORIAL

STATE OF CRITICAL CARE PRACTICE IN NIGERIA AND PROSPECTS

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INTRODUCTION

This topic is very apt because no other time has the role of the Intensivist been much amplified other than this "season" of the COVID-19 challenge. The most severely-ill of the COVID-19 infected patients end up in the Intensive Care Unit (ICU), thereby stretching to the limits, the few Intensive care unit beds in the country while also increasing the visibility of critical care practitioners in the country.

INTENSIVE CARE UNIT

The Intensive Care Unit (ICU) is a specialized area of an acute care hospital where critically-ill patients are triaged and treated, with a view of maintaining or restoring normal respiratory and other physiological functions in an organized system[1]. With increasing patient patronage and advances in technology, availability of critical care services is becoming increasingly important in most developing nations[2].

HISTORY OF ICU

During the Crimean war, in 1850, specifically, Florence Nightingale nursed the most seriously-ill patients in the nursing station. By 1923, Dr. Walter Dandy opened a 3-bed Unit in Baltimore, USA. In 1952, during the Copenhagen polio epidemic, the tank and hand ventilation machine was deviced. By 1953, Bjorn Ibsen started the first ICU in Europe during the Polio epidemic. With further development in technology, the 1960s-1970s witnessed the rapid creation of new ICUs globally[3]. These units started as multi-disciplinary units but currently most ICUs are specialty-based e.g CCU, Neurological, Cardiothoracic, NICU, PICU, etc.

ICU IN NIGERIA: YESTERDAY

The practice of intensive care of critically-ill patients started in the late 1970s at the first generation Teaching Hospitals in Nigeria, notably located at the University College Hospital (UCH), Ibadan, Lagos University Teaching Hospital (LUTH), Idi-Araba, University of Jos Teaching Hospital (UJUTH), Jos, Ahmadu Bello University Teaching Hospital (ABUTH), Zaria and the University of Nigeria Teaching Hospital (UNTH), Enugu.

In these tertiary centres, critical care started as a sub-specialty of Anaesthesia, through the efforts of Physician Anaesthetists who trained abroad and returned home to work in the listed and promising tertiary healthcare facilities. These ICUs continued to be run under the direction of Consultant Anaesthetists until the late 1990s, when some of the tertiary healthcare facilities started having specialized ICUs such as Cardiac Care Unit, Neuro-ICU and PICU. Some of the pioneer Consultant Anaesthetists/Intensivists include: Prof SA Oduntan (UCH), Prof DJO Foulkes-Crabbe (LUTH), Prof E. Ezeachi (UNTH), Prof A Orji (JUTH) and several others[3]. The case-mix in the early days were mostly severe post-operative cases and specialty cases e.g Neurosurgical and Cardiothoracic cases.

ICU IN NIGERIA: TODAY

At the inception in the late 70s, most ICUs were operated along the "Open" ICU model, with admission and management by Specialists and sometimes multiple specialists are involved. However, presently, some centres run the "closed" ICU model where admissions, discharges, management and referrals are by the ICU Consultants. There is also the "Hybrid" ICU, where ICU admission is by the ICU Consultant, management and discharges carried out by the ICU and primary Consultants.

Presently, the 3 types of ICU models exist with differing status in the vast ICUs in most tertiary hospitals and in some cases we now have "Multi-disciplinary" ICUs including Paediatric patients. Formerly, ICUs are located in public hospitals mainly but today, some specialist private hospitals now have well-equipped ICUs inherent to them. Also, 'stand alone' ICUs have now come to stay, especial-

ly in the large cities like Lagos, Abuja, etc. Furthermore, some private specialty-hospitals have ICUs as part of the services offered to clients e.g, Memphys Neurosurgical Hospital, Enugu and Regions Neuro-critical Care Hospital, Owerri.

In late 2013, a group of Intensivists and Physician Anaesthetists with interest in Critical Care came together to form the Critical Care Society of Nigeria (CCSN) which subsequently got accredited with the then World Federation of Societies of Intensive and Critical Care Medicine (WFSICCM). The CCSN, however, in line with current trends of autonomy with a view to making qualitative impact, became registered as a corporate body in Nigeria, as the Intensive and Critical Care Society of Nigeria (I-CCSN) and it is still registered with the now World Federation of Intensive and Critical Care (WFICC). In 2017, the President of the I-CCSN by providence, was elected into the Council of the WFICC for a term of 4 years. This singular feat has increased the visibility of I-CCSN and impacted positively on the practice of critical care in Nigeria and the West African Sub-region.

In 2018, the Vice-President of I-CCSN, Dr. Babatunde Osinaike won the award of the Best Poster Presentation at the 14th Emirates Critical Care Conference at Dubai, UAE, representing Nigeria. In addition to this, at the 2019 World Congress of Intensive and Critical Care held at Melbourne, Australia, Dr. Seidu Yakubu won the maiden Young Rising Star Award for LIMCs. The President of I-CCSN was a Member of the Award Committees of the two international Critical Care Conferences and greatly supported the Nigerian participants in securing institutional sponsorships to the two Conferences. These two awards by the Nigerian Intensivists have greatly showcased the practice of critical care in Nigeria through the instrumentality of the I-CCSN.

In 2020, a questionnaire survey of public and private ICUs in Nigeria was commissioned by the I-CCSN, with a view to ascertaining the status of infrastructure, ICU admissions, characteristics of the ICU among other things2. Findings revealed that a total of 30 public and private ICUs spread around all geo-political zones in Nigeria took part in this survey, though 36 centres received the questionnaires (Response rate- 83%). Most of the ICUs were general in type (86.7%), open model (66.7%) and were located within the hospital. Most ICUs are also located in the SW geopolitical zone of Nigeria. In almost 90% of the ICUs, the Anaesthetists led in running the Unit and only about a third had High Dependency Units (HDU) in addition to the ICU. Almost all the units surveyed charge varied amounts for ICU admission. While about 2/3 charge below N100,000, the median cost per day for ventilated patient was N24,000 and for non-ventilated, N9,800. Generally, intensive care services in Nigeria have remained largely in its infancy despite recent attempts by the private sector to overcome the funding challenges. Payment for healthcare services in many hospitals in Africa is largely through out-of-pocket unlike in the High Income Countries (HIC) where health insurance is well-developed. In Nigeria, we have the National Health Insurance Scheme (NHIS) but cost of ICU care is not captured.

In another recent study4, it was found that for a population of 200million, ICU beds in Nigeria was put at 385, with about 90% located in public institutions. It was also revealed that only about half of the ICUs employ guidelines during patient care. This shows that they may not be providing critical care in actual terms.

Presently, the challenges of ICU care in Nigeria include paucity of equipment, especially monitoring equipment, as this is being accomplished by personnel in most centres. Furthermore, some basic investigations such as electrolytes, ABG and Radiological investigations may be sporadic and not always available. In this light, many centres cannot do a simple severity scoring. Healthcare financing in Nigeria is also one of the challenges of qualitative critical care management as most payments are made out-of-pocket since NHIS is still not capturing ICU in its bouquet. Manpower challenges of trained and skilled Intensivists and other critical care personnel are also rife in the country but efforts are presently in the right direction to mitigate this.

ICU IN NIGERIA: TOMORROW

The prospects of ICU management in Nigeria is not entirely bleak. Many Teaching Hospitals are incorporating ICUs in their infrastructure and employing full time Consultant Anaesthetists/Intensivists solely for the ICUs. With the giant strides being made by the I-CCSN members in the global scene, opportunities are now arising for sub-specialty training in Critical Care in foreign climes. The I-CCSN have also initiated the development of National guidelines on the practice of critical care. Furthermore, with the recent introduction of the MD programme by the National Postgraduate Medical College of Nigeria (NPMCN), a definite curriculum for Advanced Critical Care training was introduced and put together by 5 Foundation Fellows of the MD degree awarded by the NPMCN, and that included this speaker. This may form the basis of curriculum development for an ICU sub-specialisation in designated teaching hospital accredited for that purpose.

Following the COVID-19 challenge in Nigeria, which

showcased critical care Physicians in the management of the severely-ill COVID-19 patients in the ICU, the Federal Government of Nigeria has approved the award of 10 ICU beds per State to be domiciled in the Federal Government tertiary institutions in the States. This will go a long way in increasing ICU beds nominally in the country.

In addition to the above, establishment of Sub-specialty ICUs, especially PICU/NICU, CCUs, Neuro-critical Care Units have been on the increase. A wholly private Neuro-critical Care Hospital was recently opened in Owerri and it is well-staffed with skilled personnel as well as state-of-the-art medical equipment. It is hoped that the financial challenge occasioned by the non-inclusion of ICU care in the bouquet of the NHIS will be addressed by the relevant authorities.

CONCLUSION

The ICU specialty in Nigeria can be said to have humble beginnings in the late 1970s through the efforts of Consultant Anaesthetists who trained abroad and relocated back home. The sub-specialty of critical care, though still evolving, in Nigeria, has gradually become an important medical sub-specialty involved in the healthcare delivery system.

The prospect of ICUs in Nigeria is bright, with the introduction of the MD programme by the NPMCN, with interest in critical care. This has led to the development of an Advanced

Critical Care curriculum. This may act as the basis of a curriculum for a future Sub-specialty training in Intensive Care in the NPMCN and WACS, if not an actual Faculty of Intensive and Critical Care in the two Postgraduate Medical Colleges.

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