Opinion

iMedPub Journals
www.imedpub.com

Insights in Biomedicine
ISSN 2572-5610

2021
Vol.6 No.9:45

Implementation and Operation of Latest Technologies in Clinical Engineering

Yakubu OE*

Federal University Wukari, PMB 1020, Katsina Ala Rd, Nigeria

Received: September 08, 2021; **Accepted:** September 22, 2021; **Published:** September 29, 2021

***Corresponding author:**
Dr. Ojochenemi Ejeh Yakubu

oj4real_2007@yahoo.co.uk

Federal University Wukari, PMB 1020, Katsina Ala Rd, Nigeria.

Citation: Yakubu OE (2021) Implementation and Operation of Latest Technologies in Clinical Engineering. Insights Biomed Vol.6 No.9:45

Opinion

Clinical engineering is a speciality within biomedical engineering which is responsible for applying and implementing medical technology to optimize healthcare delivery. Clinical engineers work alongside physicians, nurses, and other medical experts in the implementation and operation of the technologies. They take care of the medical products in hospitals and other healthcare facilities.

Clinical Engineering (CE) represents the part of Biomedical Engineering focuses on the applications of theories and methodologies of the broad biomedical engineering field to improve the quality of health services. It mainly concerns about the appropriate management of biomedical technologies from purchasing to risk controlling, development and the adjustment of hospital informative systems and telemedicine networks. CE combines with the medicine knowledge for conducing of healthcare activities by providing expertise in a wide spectrum of topics, from human physiology and biomechanics to electronics and computer science.

Clinical engineering supports a broad range of healthcare activities, and therefore the specific person requirements for the role are equally varied. Clinical scientist must be able to work with patients, clinical staff and a range of other professionals, therefore being able to communicate often in complex situations appropriately is essential.

Clinical engineering is at a strategic inflection point. Technical, economic, regulatory and cultural dynamics are at work shaping the future of health care delivery. As the nature of health care delivery is transformed by these forces, the types and mix of technology management needed by the industry are changing significantly.

The main aim of CE is to support the use of biomedical technology by health professionals and hospital organizations with appropriate skills to reach the best compromise between clinical efficacy, patient and operators safety, care quality, innovation, management and equipment costs.

Clinical engineering is a subset of Biomedical engineering. It is a branch of biomedical engineering related to the operation of medical equipment in a hospital setting. Biomedical engineering is practiced primarily in academic institutions, research laboratories and manufacturing set ups. Clinical engineering is practiced in hospitals and other environments where medical device technologies are actually utilized. Clinical engineers work closely with clinicians, surgeons and other staff who are in direct patient care services. They support and advance patient care services by applying engineering and management skills to healthcare technology. Today they act as the driving forces of cost control, optimization, utilization, regulatory requirements, human error awareness, patient safety and increasing complexity of technical environment.

CE techniques and methodologies are mainly focused on safe, appropriate and economical management of technologies, as well as on governance and management of healthcare facility. Thus, CE covers all those knowledge and methods applied to the management of biomedical technologies, ranging from their early evaluation and assessment, to their technical conduct, to their dismissing.

