Malaysia

1. **State of Clinical Engineering (CE) - Health Technology Management (HTM) – Body of Practice (BOP)**
   At current, BOP for CE / BME in Malaysia is divided into two categories as follows:
   a) Malaysian Society for Quality in Health (MSQH) – A non-profit organisation that governs the standards of practice in Biomedical and Facility management at hospital level. MSQH is recognized nationally and internationally as the leading Malaysian organization which promotes and improves safety and quality in the provision of healthcare services in Malaysia. Through active and smart partnerships with healthcare professionals, relevant facilities and agencies, and educational institutions involved in healthcare, MSQH has become the national voice in continuous quality improvement in healthcare facilities and services. In order to realize this vision, MSQH develops standards, plans and implements accreditation programmes, promotes safety and quality improvement in healthcare facilities, and organises opportunities for communication of ideas and exchange of experiences on current and best practices in health care.
   b) Medical Device Authority (MDA) – A government agency entrusted to serve the Malaysia medical device’s industry. It is a federal statutory agency under the Ministry of Health Malaysia to implement and enforce the Medical Device Act 2012 (Act 737). The main objectives of the Act are to address public health and safety issues related to medical devices and to facilitate medical device trade and industry.

2. **How would you suggest to show the Value of and from having CE-HTM program**
   a) Emphasizing knowledge transfer between Medical Equipment/Technology Provider and hospital BME/CE team.
   b) Credentialing the BME/CE personnel for every skills that they have as almost similar to Clinical practice credentialing. Then only the value of HTM can be highlighted as it directly shows the importance of having a skilled, competent and specialised personnel to support day to day operation of a hospital.
   c) BME / CE shall be part of the decision maker when it comes to decision to replace and acquire medical equipment.

3. **Example of success stories where CE supported patient outcomes**
   a) HTM – Involvement of BME in medical equipment procurement as a decision maker improves the outcome of clinical operation. This is due to every selection of medical equipment was done by considering several factors especially in terms of service support and knowledge transfer factor.

4. **CE Education program available (levels and content) – Body of Knowledge (BOK)**
   There are 8 Universities offering BME bachelor and diploma programs currently in Malaysia. Each year, there are about 600 to 700 graduates produced. General program structure contains the following:
   a. Y1: Foundation of engineering & basic physiology & anatomy
   b. Y2: Biomedical Engineering in general
   c. Y3: Internship / Capstone
   d. Y4: Specialisation & Final year project

www.ced.ifmbe.org
5. **CE Association/Society and Credentialing/Certification program if available**
   Society – Society of Medical and Biomedical Engineering Malaysia (MSMBE)
   Certification – Medical Device Authority (on going)

6. **CE major challenges (think of 3 subjects)**
   a. Validation mechanism / criteria on acceptance (skills, experiences, achievement, contribution)
   b. Mechanism for CPD implementation (courses, conferences, experience, exposure, etc)
   c. Enhance awareness among technical personnel on the need to register as professional
   d. Lack of synergy between Medical Equipment Provider and University.

7. **What is the most important action you will support to increase CE recognition**
   a. Meeting professional requirements to be set with the compulsory introduction of competency regulation for medical device under Medical Device Act
   b. Cross border recognition in line with the efforts for competency harmonization among ASEAN countries, might as well globally.
   c. Accreditation of technology programs related to biomedical engineering.
   d. Provide an ecosystem for fellow BME professionals to maintain and improve their level of skills based on a proper CPD structure.

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