

# The Asia Pacific Conference Series



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## Biomedical Engineering in Healthcare 2013 Conference

Strategies to manage biomedical equipment in healthcare to avoid functional failure and risk to patient lives whilst controlling maintenance cost and extending assets lifecycle

3<sup>rd</sup> to 4<sup>th</sup> July 2013

PJ Hilton, Petaling Jaya, Selangor

*Organised by*

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# BIOMEDICAL ENGINEERING IN HEALTHCARE CONFERENCE 2013

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## Why You Should Attend This Event

Biomedical device and equipment are huge investments for hospitals. It forms the core of patient treatment, diagnosis, therapy and surgery without which a hospital will not be able to operate efficiently and effectively. In today's modern healthcare demands, it is crucial that hospitals employ a high level of standard in managing biomedical equipment whilst ensuring patient safety and maintaining maximum value of these assets.

Managing biomedical equipment are more than just carrying out the maintenance task. Firstly, hospital must start with planning for technology needs, allocating funds, selecting suitable purchasing models and effective installation. Secondly, hospitals are concerned with its operation safety, proper maintenance and repair. Thirdly, biomedical equipment management deals with decommissioning, disposal and replacement for unsafe and obsolete items.

Finally, it calls for coordination among all staff who deals with these device to increase clinical staff competency level in utilising and operating it, and for technical staff to understand proper equipment functioning and correct application to ensure minimal risks to patients and operators.

## Who You Should Attend This Event

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|--|---|
| <ul style="list-style-type: none"><li>• Chief Medical Officer</li><li>• CEO</li><li>• General Manager</li><li>• Service Director</li><li>• Department Manager</li><li>• Biomedical Engineer</li><li>• Biomedical Maintenance</li><li>• Safety Manager</li><li>• Head of Nursing</li><li>• Administration Manager</li><li>• Support Service Manager</li></ul> | <p>From the following sectors:</p> <ul style="list-style-type: none"><li>• Hospitals</li><li>• Clinics</li><li>• Healthcare Providers</li><li>• Regulators</li><li>• Academicians</li><li>• Healthcare Consultants</li><li>• Concessionaires</li><li>• Medical Device Manufacturers</li></ul> |
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## Programme

### DAY 1 - Wednesday 3<sup>rd</sup> July 2013

0830 **Registration and Coffee**

0900 **Opening Remarks from the Chair**

0910 **Session One**  
**Reviewing the Medical Device Regulation 2012**

Recently the Ministry of Health has approved and gazetted (on 31st December 2012) the Medical Device Regulation 2012 which is the subsidiary legislation under the Medical Device Act 2012 (Act 737). The regulation will come into effect simultaneously with Act 737 on 1st July 2013. It specifies requirements and procedural matters pertaining to medical device registration, conformity assessment body (CAB) registration, establishment licensing, export permit and appeal.

This session will discuss the impact on the medical device industry and hospitals, and measures to be taken to be in compliance with the regulatory requirements as specified under the medical device law.

1010

**Morning Coffee and Networking Break**

1020

**Session Two**  
**Hospital Policy and Technology on Biomedical Devices in Healthcare System**

- Drawing effective hospital policy to avoid investments of inappropriate biomedical device and equipment
- Assessing existing infrastructure and services to avoid purchasing biomedical equipment that are incompatible
- Reducing wastefulness on acquisition of biomedical devices that are too costly to maintain
- Collaboration with stakeholders to share knowledge to explore challenges and determine actions for better planning

1120

**Session Three**  
**Assets Management Systems for Monitoring Biomedical Equipment Lifecycle Costs**

- Determining the cost of biomedical equipment or system over its effective life
- Rationalising for preferred option based on fitness for purpose, costs, benefits and risks
- Matching the biomedical equipment requirements consistent with scope, capacity and performance of service required
- Examining if biomedical equipment operating costs are higher or lower than other comparable equipment
- Assessing if the energy, maintenance and repair costs of the biomedical equipment are reasonable

1230

**Networking Luncheon**

1345

**Session Four**  
**Performing Planned Preventive Maintenance (PPM) and Repairs**

Hospitals are struggling with standardisation of checklist for Planned Preventive Maintenance of what falls under Biomedical Engineering as there is an overlap with Facilities Engineering in the maintenance of hospital equipment. In most hospitals, maintenance checklist is based on the discretion of biomedical engineers due to non-standardisation. This session will seek to discuss the following issues.

- Guidance to evaluate all hospital equipment to determine if they are under Biomedical Engineering based on MOH and other international regulating bodies
- Designing a scheduled maintenance programmes based on standard to follow on the level of critical biomedical equipment
- Maintaining a current database to track scheduled maintenance and identify problems
- PPM in accordance with the Original Equipment Manufacturers (OEM)

1445

**Session Five**  
**Management of Biomedical Device and Equipment Selection and Procurement**

- Determining most appropriate method for acquiring biomedical device based on the type, cost, specification and urgency
- Documenting rationale for the proposed procurement methods for governance and disclosure to avoid future disputes
- Considering key milestones for the proposed device acquisition i.e. funding approvals, procurement steps, ordering lead times, transition, training, installation and commissioning
- Working closely with all divisions, finance and procurement to ensure that equipment purchased are fit for purpose and best value

1545

**Afternoon Coffee and Networking Break**



# BIOMEDICAL ENGINEERING IN HEALTHCARE CONFERENCE 2013

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- 1600 **Session Six**  
**Managing Biomedical Equipment Service Contracts in Hospitals**
- Recognising cost reduction opportunities through service contract consolidation
  - Evaluating proposed savings by contract service organisations with current hospital operations
  - Revising service contracts and one-off purchases of equipment maintenance to reduce unnecessary expenditures
  - Reviewing current situation of service contracts including 3rd party service, OEM contract and insurance for your hospital best option
- 1700 **Closing Remarks from the Chair / End of Day One**

## Programme

### DAY 2 - Thursday 4<sup>th</sup> July 2013

- 0830 **Registration and Coffee**
- 0900 **Opening Remarks from the Chair**
- 0910 **Session Seven**  
**Establishing the Process for Safety and Functional Testing of Biomedical Equipment**
- Standard of compliance for inspection, testing and labelling of biomedical electrical equipment
  - Defining the frequency of testing and labelling of biomedical equipment using risk assessment guidelines
  - Evaluation and approval of equipment including new, existing, rental, loan, patient's own device prior to use
  - Standard and appropriate treatment for faulty or damaged biomedical equipment for risk minimisation
- 1010 **Morning Coffee and Networking Break**
- 1020 **Session Eight**  
**Managing Decontamination and Waste Disposal of Biomedical Equipment**
- Medical device regulation on standard and guidelines on decontamination and waste disposal
  - Standard and practice on decontamination for various types of device i.e. endoscopes, dental equipment, ophthalmic instruments, ventilator and other miscellaneous items
  - Dealing with disposal of hazardous waste i.e. radioactive materials or chemicals effectively
  - Reducing high costs associated with cleaning, sterilisation, disinfection, decontamination
- 1120 **Session Nine**  
**Decommissioning and Disposal of Biomedical Equipment**
- Quality assurance protocols associated with decommissioning must be followed before the disposal of biomedical equipment. These will include managing and updating its database, removal from various maintenance and service contracts, erasing patient data securely from device, and notifying other departments of unused parts which may be suitable for other equipment. Can the hospital involve the manufacturer? Who are the relevant parties involve? What are the standards to follow?

This session will discuss strategies for a successful preparation for disposal or trade-in of biomedical equipment in accordance with the waste management policy.

- 1230 **Networking Luncheon**
- 1345 **Session Ten**  
**Educating Clinical and Non-Clinical Staff on Operation of Biomedical Equipment**
- Identification and application of safe and correct use of medical equipment on patients in close consultation with operators' manual specific instruction
  - Improving trained staff performance and competency on correct and appropriate use, care and handling of relevant equipment
  - Guidelines to safe use of electricity in patient care and observing to warnings for each device
  - Selection of safety equipment Personal Protection Equipment (PPE) where required
- 1445 **Session Eleven**  
**Using Biomedical Equipment Audit to Identify Gaps and Establish Proper Asset Management Planning Process**
- Managing processes that relates to the hospital audit policy
  - Identifying audit criteria that hospitals have to abide by for better patient care
  - Guidelines on assessment of life expectancy of biomedical equipment
  - Comprehensive assessment of relative costs of continued maintenance versus replacement
- 1545 **Afternoon Coffee and Network Break**
- 1600 **Session Twelve**  
**Competency Issues of Biomedical Engineering Support Service in Hospitals**
- Biomedical engineering staff planning to ensure department strength and competency
  - Conducting performance evaluations and competency assessments of biomedical engineering staff
  - Identifying tools and resources necessary for effective and timely delivery of technical services
  - Properly documenting inspection, scheduled maintenance, corrective maintenance, overhauls and upgrades
  - Reviews and order parts and material to maintain inventory of all biomedical device, systems and components
  - Working with clinical departments to ensure regulatory requirements are met to maintain system integrity
- 1700 **Closing Remarks from the Chair / Conference Ends**

#### Note :

The organisers reserve the right to change the programme and speakers in the best interest of the conference

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