

The premier industry event for healthcare technology management professionals and clinicians

The Role of Clinical Engineers in JAPAN - A Case of ASO lizuka Hospital –

June 7 | 10:00-11:00

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ASO lizuka Hospital



Clinical Department: 39

Internal Medicine, Hepatic Medicine, Gastrointestinal Medicine, Respiratory Medicine, Endocrine & Diabetic Medicine, Blood Medicine, Primary Care Medicine, Psychosomatic Internal Medicine, Collagen Diseases & Rheumatism Medicine, Radiology, Psychiatry, Pediatrics, Nephrology, Cardiology, Surgery, Digestive Organ Surgery, Respiratory Organ Surgery, Pediatric Surgery, Orthopedics, Dermatology, Plastic Surgery, Urology, Obstetrics & Gynecology, Ophthalmology, Otorhinolaryngology, Neurosurgery, Neurology, Cardiovascular Surgery, Dentistry & Oral Surgery, KANPO medicine, Anesthesia, Rehabilitation, Pathology, Emergency Section, etc.



Department of Clinical Engineering

Established in 1990



[Objectives of Establishment]

- Efficient and safe use of medical equipment
- To improve the level of service for our patients by our standardized clinical techniques







Central Supply System for Common Medical Equipment (ME Center)



Trouble Response System







Number of Repairs and Periodic Inspections



Radiological equipment is not included



Total Management System for Medical Equipment

etc.

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<Management by Database>

- Resource information
- Maintenance history and plan
- Management of labelling documents
- Lending information
- Controlling of stock parts
- Manufacturer, Provider Information
- Channel control of telemeter

<Inspection at Delivery >

- Equipment information (model, S/N, etc)
- · Checking the certificate of quality
- Checking the certificate of safety
- Checking the labeling documents
- Arrangement of user training





Efficient Management

- Browsing system for device stock status
- Browsing system for labeling document



Education (Usage and Safety)







- Common Medical Equipment
- Ventilator
- Defibrillator
- Hyperbaric Oxygen Therapy
- Hemodialysis
- Cardiac Pacemaker
- Surgical equipment etc.



Patient Education, Explanation



Kids Seminar (promotion and awareness building)





Clinical Roles



Hemodialysis Center



Hyperbaric Oxygen Therapy



Intensive Care Unit







Operation Room



Catheterization Laboratory



Current Situation

- Advancement of medical equipment
- Hospital needs a good management to provide patients with securer and safer medical care.
- Promotion of team medical care





Example Endoscopy Center







Room	10
Tower	14
Endoscope	87
(upper	47)
(lower	28)
(bronco	5)
(others	7)
Physician	17
Case	16432
(upper	10807)
(lower	4544)
(others	1081)



Role of CE in Endoscopy Center

Device Management

- Maintenance
- Categorization of Device Information
- Infection Prevention

Patient Data Management

- Image Management
- Filing

Clinical Field

- Assistance for the Procedure
- Patient Care
- Capsule Endoscopy Interpretation





Efficient Human Resource Management

























Number of CEs in AIH

Number of Staff



year



License / Certification

<National License>

CE	63
RN	2
LPN	1
MT	2
Care Worker	1



<Certificate>

Arrhythmia Treatment CE Specialty	1
HBOT CE Specialty	1
ME Technologist	2
Gastroenterological Endoscopy Technician	2
Capsule Endoscopy Interpretation Technician	2
Respiratory Therapist	11
Certified Dialysis Therapist	6
Perfusion Technician	3
HBOT Technician	5

etc.



Advantages

- Appoint the right person for the right position and role
- To be able to perform advanced procedures safely
- Quick and accurate response to device trouble

Disadvantage

May limit or give unequal opportunity of experience to residents, junior physicians and nurses.



Our Kaizen Activities

Kaizen: Improvement

Aims: Improving the quality of medicine and service. Efficient Management.



TQM: Total Quality Management



Lean Management



TOYOTA Production System



Kaizen Workshop



Device Development





Innovation Promotion Office

Established in 2012

- Needs and Ideas Management
- Intellectual Property Management
- Education (Awareness Building)
- Medical Engineering Partnership (local governments, University and AIH)
- Cooperation with Partner Institutes





Director Physician Manager Clinical Engineer Assistant Manger & Chief Researcher Clinical Engineer



Conclusion

- Management of medical equipment (property management, maintenance)
- Medical equipment operation
- Expanding the fields especially clinical fields
- May play the key roles in medical device development
- Important contributors to patient safety and efficient hospital management





