



Service Priorities and Programmes Electronic Presentations

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Quality Management for Medical Equipment Maintenance

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Introduction

Quality management system (QMS) is essential to ensure the provision of service is consistent and satisfies users' needs, which is especially important for a life-saving hospital. To establish a QMS, plan-do-check-act (PDCA) approach is commonly adopted with the maintenance of documentation including procedures and records. As the absence of preventive maintenance (PM) may have an adverse effect on the performance of medical equipment, quality of PM should be monitored and evaluated using PDCA approach to build a foundation of recommendations for continuous quality improvements (CQI).

Objectives

To take PDCA approach efficiently for improving quality of medical equipment maintenance in KWC

Methodology

Below methodology was applied in each phase of PDCA:

- “Plan” phase - Monitor the contract association process to ensure high risk equipment (Level III & IV) under KWC are covered by valid maintenance contracts with corresponding records revealed in Asset Management System (AMS) - Coordinate data cleansing process on maintenance contracts to smooth the migration of PM records from AMS to Enterprise Asset Management (EAM)
- “Do” phase - Review PM records in AMS with the follow-up with contractors for the details of maintenance events to ensure PM has been done regularly to maintain the performance of medical equipment - Perform statistical analysis on PM data for contractors' performance evaluation
- “Check” phase - Conduct monthly / bi-monthly Cluster Facilities Management (CFM) meeting to review the contractor performance
- “Act” phase - Provide recommendations for Corrective Actions (CAs) and Preventive Actions (PAs), based on the results obtained in “Check” phase to achieve continuous improvement on medical equipment PM

Result

PDCA approach is adopted to continuously improve the quality of medical equipment PM in KWC. For the “plan” phase, CFM is coordinating data cleansing process on

maintenance contract association/disassociation to smooth the migration of data from AMS to EAM system, which will provide automatic alert of scheduled PM to contractors. In addition, contract association of high-risk medical equipment is being monitored to ensure all are covered by valid maintenance contract. For the “do” phase, CFM meeting has been conducted regularly to review the contractor performance and if additional measures should be taken to ensure PMs conducted as planned. PM records on AMS were also reviewed to identify the data integrity against the contractual requirements, and currently being following-up with contractors for maintenance details in the “check” phase. Statistical analysis will then be performed to achieve CQI of medical equipment PM in the “act” phase.