

Title:

Applying Lean Technique in Medical Records Management at Hospitals

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Abstract:

Handling manual medical records (MR) in tertiary hospitals can be inefficient, hence may affect patient's care. At present, patient waiting times at specialized clinics were affected due to the inability of preparing medical records on time. Our study applies the lean technique to examine issues and produce measurement performance indicator metrics in manual record management. This action research was carried out in the Medical Record Department, Hospital Kuala Lumpur. It was conducted over a year-period in 2017 in two main phases which were awareness and coaching of lean thinking and its application. Lean tools that have been utilized were value stream mapping (VSM), affinity diagram, 5S (i.e. sort, set in order, shine, standardize, sustain/self-discipline), Kanban, Kaizen, Heijunka and Poka-yoke. Specific performance project measurement metrics were established to determine the successful application of lean. Based on our case study, four specific performance project measurement metrics were achieved; (1) number of MR available 2 days before clinic appointment improved from 72 to 74%, (2) number of temporary MR made due to unavailable MR on clinic day reduced significantly (mean 8.43 vs. 2.53, $p < 0.01$), (3) number of MR to be traced on the clinic day for walk in patient and MR available improved significantly (mean 4.19 vs. 0.58, $p < 0.01$), (4) number of MR to be traced on the clinic day for walk in patient and MR not available reduced significantly (mean 4.24 vs. 1.69, $p < 0.01$). This study has shown the successful and positive feedback of lean technique application in manual medical record management at a tertiary hospital. Moreover, lean technique also produced the relevant and appropriate performance measurement metrics/indicators in monitoring the competency of medical record processes.