

Achieving post cataract surgery refractive accuracy in a teaching-based hospital

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ABSTRACT

Objective: To evaluate the difference between the target and post-operative refractive outcome after phacoemulsification and intraocular lens implantation surgery in a teaching-based hospital. **Method:** A retrospective study was conducted from January through December 2017 hospital Melaka, which also serves as a postgraduate teaching ophthalmology institution. The main outcome measure was percentage of cases achieving a postoperative spherical equivalent within 1.00 diopter (D) of target spherical equivalent. **Results:** We performed 2253 phacoemulsification surgeries within the specific period and 1740 (77.2%) fulfilled the criteria to be included in this study. Of these, 1617 (92.9%) achieved within $\pm 1.00D$ by 8- to 12-weeks post-surgery. The absolute difference between the target and actual refraction ranged from -2.66 to +2.48 D with mean error of $-0.14 D \pm 0.56 D$. **Conclusion:** Achieving an accurate refractive outcome is the aim in managing patients' expectation and fulfilling surgeons' satisfaction in balance with sufficient opportunities for the trainees' learning curve. It is an objective indicator either to measure surgeon surgical skill or identify any loophole to improve the surgical performance.

KEY WORDS:

Post cataract refractive outcome, refractive accuracy, cataract service, phacoemulsification, target refraction

Application of LEAN thinking to ophthalmology clinic

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ABSTRACT

Objective: Value stream mapping (VSM) is a LEAN technique used to visualise a process flow, identifying the work flow and structure. It helps to reduce waste and improve care delivery. Application of VSM in Malaysian healthcare is still in the early stage. Ophthalmology clinic involves numerous care pathways. Therefore, the objective of this study is to identify Arrival to Consultation (ATC) and Clinic Length of Stay (CLOS), in order to establish areas for improvement. **Method:** VSM was created to determine the common care pathways. Quantitative data was collected for seven days in Ophthalmology Clinic, Hospital Serdang from 0830-1300pm when patient load is highest. Task time at each process was noted. ATC and CLOS for different care pathways were calculated and compared with the benchmark set by Ministry of Health (MOH). **Results:** Average number of patients per day is 282 patients. The pathway with the longest ATC; 276 minutes and CLOS; 292 minutes is the one involving active screening clinic. For other pathways, CLOS range from minimum 90 to 170 minutes, ATC range from 106 to 186 minutes. The results were far cry from MOH's benchmark, ATC 90 minutes and CLOS 150 minutes. Waiting time and multi-procedures for a single patient have been identified as main contributors of the below par results. **Conclusion:** VSM has shown its significance in the application of LEAN in our ophthalmology clinic. This provides an insight of improvement in the process flow. Thus, we believe that application of LEAN has the potential to improve the healthcare delivery in Ophthalmology clinic.

KEY WORDS:

LEAN, ophthalmology clinic, improve healthcare delivery