



Service Priorities and Programmes
Electronic Presentations

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Clinical Safety in Intraocular Lens Procedure for Cataract Patients

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Introduction

Cataract surgery is a high volume performed ophthalmic surgery in the Eye Day Surgery Centre. In NTEC, about 4000 cataract operations are done every year. The surgery involves removing the cloudy lens and replacing it with an artificial lens called an intraocular lens (IOL). When planning for cataract surgery, measurement of eye axial length and corneal power (biometry) is a critical procedure in order to calculate accurate IOL power. Consistency and accurate performance rely on well-trained and experienced staff. Correct information such as formula, target refraction, patient's name and identity card number in the biometry record sheet are also very important. Wrong entry of patient's information would lead to repeat biometry procedure. Incorrect formula and target refraction would cause miscalculation of IOL power. Patient has an unexpected refractive result and become spectacle dependence post-operatively. For those who have a really significant refractive error, they may need an IOL exchange. Owing to this, a series of new improvement methods are implemented to enhance quality service.

Objectives

- 1) To ensure clinical safety in intraocular lens procedure
- 2) Zero tolerance in errors performing biometry

Methodology

- 1) Review the existing procedure
- 2) Identify the possible risks and problems encountered
- 3) Develop solutions to minimize risks by
 - i) Using colour biometry record sheet with pre-investigation checklist
 - ii) Designing a slots card to highlight important information to be checked
 - iii) Using patient's gum label on each biometry record sheet

Result

Under new arrangement,

- 1) Easily retrieval of biometry record with distinct colour paper
- 2) All relevant information including auto-refraction, K-readings and IOL power are put on the same sheet

- 3) Ensure all essential and important information including IOL formula, target refraction, eye status and age are being checked by putting the slots card on top of the printout
- 4) Zero manual entry errors of patient's information by using patient's gum label
- 5) Repeat audit with new arrangement in coming 6 months