



Service Priorities and Programmes Electronic Presentations

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Development of a web-based centralized cornea registry to enhance transparency and accountability of the cornea waiting list in Hong Kong

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Introduction

Hospital Authority Eye Bank is the only eye bank in Hong Kong responsible for obtaining and providing ocular tissues to ophthalmologists. We strive for excellence to achieve quality eye banking and one of the important milestones achieved after 4 years of discussion and planning is the development of a web-based Eye Bank Management System (EBMS) to ensure a fair and transparent waiting list for corneal tissue. Historically, transplantable corneas were allocated using a hospital-based approach with each hospital managing its own waiting list. Waiting lists held by different users are highly non-transparent and impedes the auditing and quality assurance program. The lack of uniform prioritization criteria for the various waiting lists also raises doubts on the fairness of cornea allocation.

Objectives

To describe the development of the EBMS to ensure a transparent and accountable system for registration, prioritization and allocation of cornea tissues to patients who are on the waiting list for corneal transplantation in Hong Kong.

Methodology

An electronic system was developed comprising of 10 core modules, namely–Donor Information Module, Ocular Transplant Tissue Information Module, Central Waiting List Module, Allocation System Module, Delivery and Transportation Module, Recipient and Post-ops Module, Human Organ Transplant Board Module, Accounting Module, Quality Assurance Module; and Analysis and Reporting Module. The system followed strict compliance to Personal Data (Privacy) Ordinance, Human Organ Transplant Ordinance, Hospital Authority's Policy on Information Security and Privacy, and was developed in line with the medical standards of the Eye Bank Association of America and customized to the local Eye bank setting. A Working Group comprising of ophthalmologist representatives provided professional inputs to define the prioritization and allocation criteria. The system was developed in-house by

Information Technology Department of KCC with the support of HAITS.

Result

The EBMS was launched in October 2016 and improved eyebanking service quality and safety by enhancing risk management and governance and allowed the implementation of continuous quality improvement and audit system through modernizing information technology system. The project marks a significant milestone to the local corneal donation service, being the first centralized cornea registry with a predefined scoring system in Hong Kong.