Optimisation of retinal angiography service capacity through workflow streamlining in PWH Eye Centre

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Introduction
Despite the importance of Fundus Fluorescein angiography (FFA) and Indocyanine Green angiography (ICG) in the diagnosis and management of retinal conditions, a relatively high default rate (~10%) is identified in PWH Eye Centre. Current practice: doctors to explain the investigation and fill in all the FA/ICG related documents during consultation with very limited time, which results in suboptimal patient education & also inconsistent drug prescription found on the FFA appointment date. As accurate drug allergy status & steroid cover where applicable are crucial to “Safe” FFA procedures, delay will be inevitable in cases where further clarification is needed. Consequently, “wastage of time” & “disturbance” to doctor consultation will be resulted. Optimisation of FA/ICG capacity can be enhanced by addressing the above issues and workflow is to be changed.

Objectives
To optimise utilization & efficiency of FFA/ICG appointment, enhance patient safety & reduce patient waiting time for FFA/ICG

Methodology
The 1st strategy is to arrange patients to see health nurse for patient education & screening for safe FFA/ICG procedure early before the actual FFA appointment date. Besides patient education on the FFA/ICG procedure, the impact of defaulting appointment will also be stressed. Health nurses play a vital role to ensure completeness & accuracy of the FFA/ICG checklist including allergy status and
steroid cover for indicated cases. As such, “wastage” of time spent on FFA appointment date can be minimised & safety is also enhanced. The 2nd strategy is to stagger the time slots ranging from 8:30am to 10:30am, instead of current single time slot at 8:30am; patients’ waiting time can be thus reduced.

**Result**

After changes, patient safety is enhanced by the early detection and mitigation of any discrepancies in drug allergy status & need of steroid cover. There has been a significant drop of erroneous documentations associated with patient allergy status or use of steroid cover \( \downarrow 50\% \). The default rate of FFA/ICG also decreased from 10% to 6.25%, without any defaulters identified for new cases. The average waiting time for investigation on the appointment date is reduced by 8.8% and the procedure time for FFA/ICG decreased by 13.4%. The capacity of FFA/ICG service is thus enhanced \( \uparrow 30\% \). Waiting time for investigation is reduced from 8 weeks to 4 weeks.