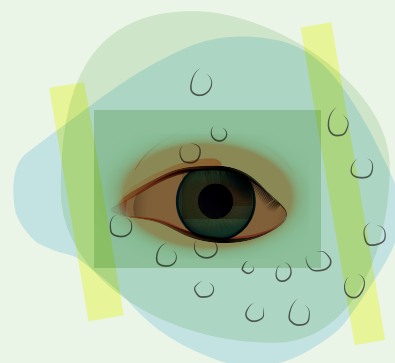


VBC in Practice: **EliminECG**

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OVERVIEW

Cataract surgery significantly enhances quality of life, particularly for elderly patients, improving vision and preventing falls and related injuries that often lead to additional healthcare complications. Timely access to cataract surgery supports patient independence and wellbeing while also optimising healthcare resources. However, in Singapore, routine ECG screenings have led to unnecessary cardiac referrals, resulting in delays, increased stress for patients and their families, and strain on healthcare resources. The ElimiECG study and practice-change initiative, launched in 2023 at the Singapore National Eye Centre (SNEC), addresses these issues by focusing on patients undergoing cataract surgery with local anaesthesia, with plans to expand to other low-risk eye surgeries.

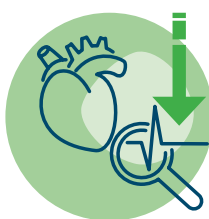
OBJECTIVES

"The initiative was started when SNEC patients were seen turning up at clinics concerned about their heart health and frustrated over their cataract operations being postponed," says Dr Audrey Lee, a cardiologist from the National Heart Centre.

ElimiECG aims to:



**Reduce
unnecessary
pre-operative
ECGs**



**Decrease
unnecessary
cardiology
referrals and
investigations**



**Minimise
cataract surgery
cancellations**

Key stakeholders who potentially benefit from ElimiECG include ophthalmologists, who experience fewer surgical delays and improved operating room efficiency, and cardiologists, who see a reduction in unnecessary referrals and investigations. Additionally, patients and caregivers would also gain from reduced waiting times, lower anxiety and fewer costs associated with unnecessary medical exams.

Anaesthetists play a crucial role in this initiative, serving as patient advocates and contributing to refining preoperative assessments. The reallocation of nursing responsibilities also plays a significant role; nurses previously tasked with ECGs now conduct comprehensive pre-op assessment questionnaires. This new process not only saves time but also requires no additional funding.



DATA-GATHERING AND CHALLENGES FACED

International guidelines advise against routine preoperative ECGs for low-risk patients, and this initiative aims to raise awareness of these guidelines locally. A pilot study and audit collected data on key metrics, such as surgery cancellations/postponements adverse events during the perioperative period and cardiology referral rates. Success was measured through surgery cancellations and perioperative, adverse events during the perioperative period, and cardiology referral rates from the Singapore National Eye Centre. "Crucially, our anaesthesia and ophthalmology colleagues reviewed the data collaboratively, balancing patient safety and needs, with resource optimisation. This approach promotes value-based and evidence-driven care," adds Dr Lee.

Changing entrenched practices, such as eliminating routine pre-operative ECGs, came with certain challenges. The team recognised the need for multidisciplinary support, bolstered by international evidence, to foster confidence in the new protocols. Pilot studies and ongoing audits were essential for refining processes to suit the local context.

OUTCOMES

The ElimineCG initiative achieved significant reductions in unnecessary ECGs and cardiology referrals, with fewer delays for ophthalmologists and lower patient anxiety and dissatisfaction. The streamlined pre-operative assessment process also enabled healthcare resources to be redirected towards more targeted assessments. Overall, the ElimineCG initiative garnered an estimated cost savings of \$1,177,668.20.

"We feel very fortunate to have found ready and willing collaborators on this difficult but fulfilling journey," says Dr Lee. To sustain success, effective staff training and the establishment of proper workflows are critical for accurately identifying patients requiring ECGs. Investments in manpower and resources are also vital for successful implementation and scaling.



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