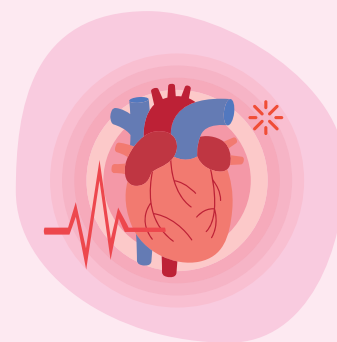


VBC in Practice:

A New Chest Pain Protocol for Cardiology Clinics

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OVERVIEW

Chest pain is a common symptom encountered in cardiology outpatient clinics, with many patients classified as low-risk. Despite international guidelines advocating for reduced testing in low-risk cases, current practices often lead to unnecessary cardiac testing. This issue is compounded by an ageing population and the rising demand for cardiac services, leading to over-ordering of investigations in low-risk patients. Inconsequently, patients face longer wait times for essential tests, increasing strain on healthcare resources.

To address this, a chest pain protocol was developed to stratify patients without prior coronary artery disease into low-, moderate- and high-risk categories using the PRECISE score. Developed from a study involving 1,858 patients at Singhealth Polyclinics, this locally relevant tool predicts the likelihood of significant coronary artery disease, enhancing risk stratification and guiding management. Moderate to high-risk patients receive appropriate testing, while low-risk patients focus on cardiovascular risk prevention.

Launched in March 2022, the protocol is being implemented at Sengkang General Hospital and the National Heart Centre Singapore, complementing the National Value-Driven Care programme's objective of improving patient outcomes

sustainably. The protocol aims to streamline patient management, reduce unnecessary testing, and save costs for both patients and institutions.

DATA COLLECTION & METHODOLOGY

Data collected includes the number of patients undergoing the protocol, distribution across risk categories, types of investigations ordered, discharge rates at six months, and safety outcomes (1-year mortality and readmission rates). This information was compared to a baseline cohort without the protocol to evaluate its effectiveness.

Resistance from senior physicians, accustomed to liberal testing practices, presented substantial challenges. Concerns about missed diagnoses and medicolegal risks were prevalent. However, a pilot study indicated no increase in adverse outcomes, helping to reassure physicians about the protocol's safety.

OUTCOMES

From March 2022 to December 2023, 436 patients were treated under the chest pain protocol, with 353 (81%) classified as low-risk. In this group, the rate of testing dropped from 61% to 18%. Notably, there were no adverse events, highlighting the protocol's effectiveness in reducing unnecessary testing

while maintaining patient safety.

The protocol has resulted in a number of positive outcomes. Low-risk patients benefit from avoiding costly and often unnecessary tests while receiving essential education on cardiovascular disease prevention. Higher-risk patients gain from shorter wait times for investigations, facilitating timely diagnoses. Additionally, reduced testing eases the workload on cardiac laboratories, allowing staff to focus on higher-risk cases. The protocol has demonstrated that reducing testing rates in low-risk patients can be safely accomplished, shifting the focus of consultations from testing to discussions on preventive health.

