
Cardiology

Eight Things Clinicians and Patients Should Question

by
Canadian Cardiovascular Society
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- 1 Don't perform stress cardiac imaging or advanced non-invasive imaging in the initial evaluation of patients without cardiac symptoms unless high-risk markers are present.**

Asymptomatic, low-risk patients account for up to 45 percent of unnecessary "screening". Testing should be performed only when the following findings are present: diabetes in patients older than 40-years-old; peripheral arterial disease; or greater than 2 percent yearly risk for coronary heart disease events.
- 2 Don't perform annual stress cardiac imaging or advanced non-invasive imaging as part of routine follow-up in asymptomatic patients.**

Performing stress cardiac imaging or advanced non-invasive imaging in patients without symptoms on a serial or scheduled pattern (e.g., every one to two years or at a heart procedure anniversary) rarely results in any meaningful change in patient management. This practice may, in fact, lead to unnecessary invasive procedures and excess radiation exposure without any proven impact on patients' outcomes. An exception to this rule would be for patients more than five years after a bypass operation.
- 3 Don't perform stress cardiac imaging or advanced non-invasive imaging as a pre-operative assessment in patients scheduled to undergo low-risk non-cardiac surgery.**

Non-invasive testing is not useful for patients undergoing low-risk non-cardiac surgery (e.g., cataract removal). These types of tests do not change the patient's clinical management or outcomes.
- 4 Don't perform echocardiography as routine follow-up for mild, asymptomatic native valve disease in adult patients with no change in signs or symptoms.**

Patients with native valve disease usually have years without symptoms before the onset of deterioration. An echocardiogram is not recommended yearly unless there is a change in clinical status.
- 5 Don't order annual electrocardiograms (ECGs) for low-risk patients without symptoms.**

Don't obtain screening electrocardiogram testing in individuals who are asymptomatic and at low risk for coronary heart disease. In asymptomatic individuals at low risk for coronary heart disease (10-year risk <10%), screening for coronary heart disease with electrocardiography does not improve patient outcomes.
- 6 Don't offer therapies on the basis of survival benefit without establishing your patient's prognosis, preferences, and goals of care.**

It is often the path of least resistance to follow medical care algorithms and escalate care as patient's require it. However, it has been consistently shown that patients value goals of care discussions to better understand prognosis and possible next therapeutic steps. These discussions enhance patient care and help avoid unnecessary interventions.

7 Don't test for myoglobin or CK-MB in the diagnosis of acute myocardial infarction (AMI). Instead, use troponin I or T.

Unlike CK-MB and myoglobin, the release of troponin I or T is specific to cardiac injury.

Troponin is released before CK-MB and appears in the blood as early as, if not earlier than, myoglobin after AMI. Approximately 30% of patients experiencing chest discomfort at rest with a normal CK-MB will be diagnosed with AMI when evaluated using troponins. Single-point troponin measurements equate to infarct size for the determination of the AMI severity. Accordingly, there is much support for relying solely on troponin and discontinuing the use of CK-MB and other markers.

8 Don't exclusively offer centre-based cardiac rehabilitation when home-based cardiac rehabilitation programs can be offered for adults with myocardial infarction, angina, heart failure or those who have undergone revascularisation.

Cardiac rehabilitation is crucial in the treatment of patients living with cardiovascular disease. These structured programs improve the physical, psychological, and social well-being of individuals with specific conditions or following a cardiovascular event or procedure. They are typically delivered on-site and include supervised exercise training, education on heart-healthy behaviors, nutritional guidance, stress management techniques, and psychosocial support. The development and evaluation of in-home programs with or without the use of digital support have been compared with centre-based rehabilitation in a recent systematic review that assessed a total of 24 trials and included a total of 3046 participants. No evidence of a difference was seen between home- and centre-based cardiac rehabilitation in terms of total mortality, exercise capacity or in health-related quality of life. We can therefore offer an alternate effective model of programming in appropriate patients in their home environments and limit travel.

Centre-based cardiac programs vary in terms of travel distance for patients, frequency, and duration. It is estimated that home-based program could reduce the need for trips to on-site facilities by 50-75%. Driving contributes significantly to Canada's carbon footprint, with transportation being one of the largest sources of greenhouse gas emissions in the country. Addressing transportation-related emissions, including those associated with driving to healthcare facilities, is crucial for mitigating climate change.

How the list was created

The Canadian Cardiovascular Society (CCS) established its Choosing Wisely Canada top 5 recommendations by working closely with the American College of Cardiology (ACC). The ACC provided the CCS with the literature review, complete to 2009, that had informed their top 5 recommendations. This provided a strong foundation for the CCS to begin its investigation into relevant top 5 recommendations for cardiac care in the Canadian context. The CCS then conducted an extensive literature review to include all relevant publications since January 1, 2009. Moreover the CCS also included all relevant existing Canadian Guidelines, any Canadian appropriate use criteria and Canadian national or provincial policies that pertained to the five statements. The CCS then performed an extensive dissemination and consultation with its membership via email, Facebook, Twitter, the annual national meeting and webinars to ensure awareness and approval of the top 5 recommendations. The first four items were adapted with permission from the Five Things Physicians and Patients Should Question, ©2012 American College of Cardiology. Item 5 was adapted with permission from the Five Things Physicians and Patients Should Question, ©2012 American College of Family Medicine.

Sources

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About the Canadian Cardiovascular Society

The CCS mission is to promote cardiovascular health and care through knowledge translation, including dissemination of research and encouragement of best practices and professional development, as well as leadership in health policy. Its 2,000+ members include academic and community cardiologists, cardiac surgeons, pediatric cardiologists, trainees in those fields, researchers and other health care professionals working in cardiac sciences in all corners of the country.



Canadian Cardiovascular Society

Leadership. Knowledge. Community.

About Choosing Wisely Canada

Choosing Wisely Canada is the national voice for reducing unnecessary tests and treatments in health care. One of its important functions is to help clinicians and patients engage in conversations that lead to smart and effective care choices.

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