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Society Guidelines

Canadian Cardiovascular Society Guidelines for the Diagnosis and Management of Stable Ischemic Heart Disease

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ABSTRACT

This overview provides a guideline for the management of stable ischemic heart disease. It represents the work of a primary and secondary panel of participants from across Canada who achieved consensus on behalf of the Canadian Cardiovascular Society. The suggestions and recommendations are intended to be of relevance to primary care and specialist physicians with an emphasis on rational

RÉSUMÉ

Cette vue d'ensemble offre des recommandations sur la prise en charge de la cardiopathie ischémique stable. Elle représente le travail d'un panel principal et d'un panel secondaire de participants de l'ensemble du Canada qui ont atteint un consensus au nom de la Société canadienne de cardiologie. Les suggestions et les recommandations doivent avoir rapport avec les soins primaires et les médecins

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The disclosure information of the authors and reviewers is available from the CCS on their guidelines library at www.ccs.ca.

This statement was developed following a thorough consideration of medical literature and the best available evidence and clinical experience. It represents the consensus of a Canadian panel comprised of multidisciplinary experts on this topic with a mandate to formulate disease-specific recommendations. These recommendations are aimed to provide a reasonable and practical approach to care for specialists and allied health professionals obliged with the duty of bestowing optimal care to patients and families, and can be subject to change as scientific knowledge and technology advance and as practice patterns evolve. The statement is not intended to be a substitute for physicians using their individual judgment in managing clinical care in consultation with the patient, with appropriate regard to all the individual circumstances of the patient, diagnostic and treatment options available and available resources. Adherence to these recommendations will not necessarily produce successful outcomes in every case.

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deployment of diagnostic tests, expedited implementation of long- and short-term medical therapy, timely consideration of revascularization, and practical follow-up measures.

spécialistes tout en insistant sur l'utilisation rationnelle des examens diagnostiques, la mise en œuvre rapide d'un traitement médical à court et à long terme, la prise en considération en temps opportun de la revascularisation et les mesures concrètes de suivi.

In 2008, cardiovascular (CV) disease accounted for 29% of all deaths in Canada. Of these, 54% were due to ischemic heart disease.[1] Such an effect warrants careful attention to the appropriate diagnosis and management of stable ischemic heart disease (SIHD) to optimize outcomes and resource utilization. The Canadian Cardiovascular Society (CCS) last updated guidelines for SIHD in 2000.[2] Many advances in care have since occurred and guidelines from other societies updated.[3,4] The purpose of this article is to promote evidence-based practice by providing SIHD recommendations of relevance in the Canadian context. The project was undertaken by primary and secondary panels of physicians who achieved a final consensus document. All recommendations use the Grading of Recommendations Assessment, Development and Evaluation (GRADE) convention, which provides a descriptor of the strength of the recommendation and the quality of evidence.[5] In the case of diagnostic testing, evidence evaluation considered bias, consistency, and precision of study results but with a major emphasis on readily available methods in community practices. This article does not focus on aspects of cardiac care covered by other CCS guidelines,[6-14] but supports the access to specialty care and expertise framework of the CCS[15] and the Choosing Wisely campaign.[16] The main focus is on adult patients with suspected or known SIHD, covering 4 fundamental processes: establishing diagnosis and prognosis, initiating medical treatment, consideration of revascularization, and provision of appropriate follow-up (Fig. 1).

I. Establishing Diagnosis and Prognosis

In patients with symptoms suggestive of SIHD, the probability of having obstructive coronary artery disease (CAD) is primarily obtained using a thorough history. Classically, angina is described as a dull retrosternal discomfort/ache/heaviness that might or might not radiate to the jaw, neck, shoulders or arms, is provoked by exertion or emotional stress, and is relieved within 5 minutes of rest or nitroglycerine use.[2] However, nonclassical symptoms are common, particularly among diabetic patients, and even response to nitroglycerine might be misleading.[17-19] Accordingly, the context is important and all risk factors should also be considered (Table 1). Although the physical examination has low sensitivity for the detection of CAD, abnormalities such as gallops, bruits or absent pulses, or obvious chest wall problems might alter the probability of underlying disease. A normal electrocardiogram (ECG) does not exclude the diagnosis, but an abnormal resting ECG increases the probability and might influence the choice of diagnostic tests. Routine laboratory tests should be obtained to determine the presence and severity of factors that might influence angina, choice of tests, or implementation of therapy (Tables 2 and 3).[3,20] It is also important to evaluate non-CV comorbidities and quality of life issues because these might substantially influence appropriateness of diagnostic and treatment choices.

RECOMMENDATION

1. We recommend that a focused history and physical examination be obtained to elucidate symptoms, cardiac risk factors, medical history, and signs of CV disease or other aetiologies of symptoms (Strong Recommendation, High-Quality Evidence).
2. We recommend that CV comorbidities of heart failure, valvular heart disease, cerebrovascular and peripheral vascular disease, and renal disease should be fully documented (Strong Recommendation, High-Quality Evidence).
3. We suggest that initial assessment be supplemented by routine testing that includes hemoglobin, full cholesterol panel, fasting glucose, hemoglobin A1c, renal function tests, liver function tests, thyroid function tests, and a 12-lead ECG (Conditional Recommendation, Moderate-Quality Evidence).

Using noninvasive diagnostic and prognostic testing

Bayesian theory supports the premise that diagnostic testing has less effect on final diagnosis when pretest probability is at the extreme (eg, $< 10\%$-15% or $> 85\%$-90%). For example, a patient with a very high pretest probability of CAD

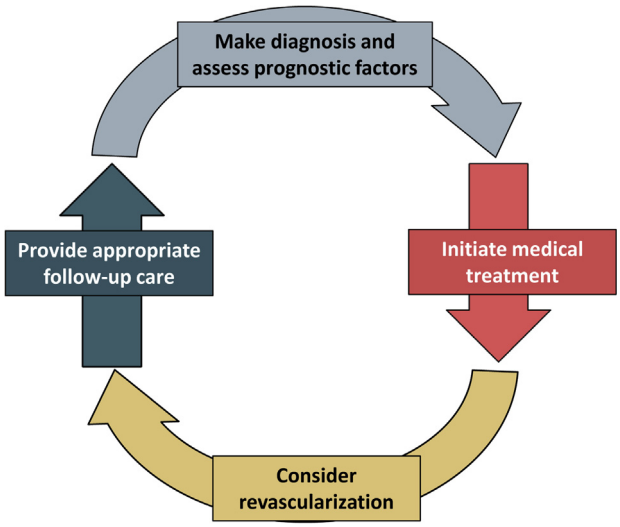

Figure 1. Diagnosis and management of patients with stable ischemic heart disease.