

Economic burden of cardiomyopathy in Canada 2018 to 2021: opportunity for cost avoidance through pharmaceutical innovation.

Description

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ABSTRACT

This study estimated the economic burden of illness associated with cardiomyopathy (CM), by hospital cost, productivity loss, mortality cost, and pharmaceutical costs over 4 years from 2018-2021, using data from the Canadian Institute for Health Information (CIHI) and Patented Medicine Prices Review Board (PMPRB). CM encompasses a group of genetic degenerative cardiac disorders, with limited preventative options. Pharmaceuticals are often first line treatments for CM including ACE inhibitors, beta-blockers, calcium channel blockers, antiarrhythmic drugs, anticoagulants, digoxin, and a new drug class known as cardiac myosin inhibitors. If pharmacological therapy is ineffective, surgical options include septal myectomy (SM) and alcohol septal ablation (ASA), and often CM patients are eligible for cardiac implantable electronic devices (CIED). CM can be associated with cardiac co-morbidities that may require other surgical interventions including coronary artery bypass graft (CABG). In 2021 CM-related costs ranged from \$3.2 billion to \$5.1 billion. The total economic burden of illness associated with CM over the 4 years ranged from \$11.2 billion to \$18.1 billion. Mortality accounted for 88% to 90% of the total cost. While hospital cost accounted for 6.8% to 7.1%, pharmaceuticals cost from 3.8% to 2.4%, and productivity losses from 1% to 2.4%. Patented innovative medicines accounted for less than 1% of the total estimated CM related economic cost. As a first line outpatient therapy, pharmaceuticals offer an opportunity for treating CM and reducing downstream hospital utilization, productivity losses, and mortalities. The magnitude of the economic burden suggests that any pharmaceutical innovation leading to improved CM patient outcomes, has the potential to achieve significant cost avoidance. Facilitating development and early adoption of new medicines should be a policy priority.

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