

OHTAC Recommendation: Impact of Advanced (Open) Access Scheduling on Patients With Chronic Diseases (DRAFT)

Ontario Health Technology Advisory Committee

August 2012

Background

Health Quality Ontario (HQO) conducted an evidence-based analysis of advanced access to answer the following research question:

- What is the effectiveness and cost-effectiveness of advanced access scheduling compared to traditional scheduling for the management of chronic diseases (atrial fibrillation, chronic obstructive pulmonary disease, chronic wounds, coronary artery disease [CAD], diabetes, heart failure, stroke, or multiple chronic conditions) in Ontario adults?

HQO also conducted an evidence-based analysis of the impact of continuity of care on clinical outcomes and health service utilization among adults with chronic conditions to answer the following question:

- Is higher continuity of care effective at reducing health resource utilization and improving patient outcomes?

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Conclusions

Advanced Access in a Diabetes Population

- There were no significant changes in hospitalization rates for patients with diabetes; the quality of the evidence was low.
- There were no significant changes in emergency department (ED) visit rates for patients with diabetes; the quality of the evidence was very low.
- There was inconsistent evidence of changes in combined ED/urgent care visits for patients with diabetes. One study found no reduction, while the second study reported a significant reduction; the quality of the evidence was very low.
- There was a significant reduction in the proportion of patients with diabetes admitted to hospital whose length of stay was greater than 3 days; the quality of the evidence was very low.
- There was inconsistent evidence of changes in chronic disease clinical measures (hemoglobin A_{1c}, low-density lipoprotein cholesterol, systolic blood pressure) for patients with diabetes; the quality of the evidence was very low.

Advanced Access in a CAD/CHD Population

- There was a significant reduction in hospitalization rates for patients with coronary heart disease (CHD); the quality of the evidence was very low.
- There were no significant changes in ED visit rates for patients with CHD; the quality of the evidence was very low.
- There was a significant reduction in the proportion of patients with CHD admitted to hospital whose length of stay was greater than 3 days; the quality of the evidence was very low.
- There was inconsistent evidence of changes in chronic disease clinical measures (hemoglobin A_{1c}, low-density lipoprotein cholesterol, systolic blood pressure) for patients with coronary artery disease/CHD; the quality of the evidence was very low.

Advanced Access in a Geriatric Population

- The authors reported that a majority of patients (55%) were satisfied with an advanced access scheduling system over traditional appointment scheduling systems, but no statistical analysis was conducted, and the quality of the evidence was very low.

Continuity of Care

- There was low quality evidence that:
 - higher continuity of care appears to decrease health service utilization (hospitalizations and ED visits), despite heterogeneity in how continuity is measured
 - higher continuity appears to improve hemoglobin A_{1c} levels in patients with diabetes
 - there is a positive association between high continuity and patient satisfaction, particularly among patients with chronic disease
- There is insufficient evidence to comment on the relationship of continuity of care on other disease-specific outcomes.

Decision Determinants

A decision-making framework has been developed by OHTAC that consists of seven guiding principles for decision making, and a decision-making tool, called the Decision Determinants (DD) tool. When making a decision, OHTAC considers 4 explicit main criteria: overall clinical benefit, value for money, feasibility of adoption into health system, and consistency with expected societal and ethical values. For more information on the Decision-Making Framework, please refer to the *Decision Determinants Guidance Document* (http://www.health.gov.on.ca/english/providers/program/mas/pub/guide_decision.pdf).

A summary of the Decision Determinants is available in Appendix 1.

Based on the Decision Determinants criteria, OHTAC weighed in favour of the evidence showing both the lack of effectiveness of advanced access in improving clinical outcomes and health service utilization among adults with chronic diseases and the effectiveness of increased provider continuity on the same outcomes. As well, OHTAC recognized that, given the status of advanced access implementation in Ontario, it was important to confirm the evidence about advanced access with a rigorous evaluation of the existing program.

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OHTAC Recommendations

OHTAC recognizes the importance of timely patient access to primary care, and concurs that advanced access is one of the tools available to primary care practices seeking to reduce appointment wait times. In the case of chronic disease management, OHTAC can find no evidence on which to base a confident opinion regarding any impact of advanced access on clinical outcomes, health service utilization, and patient satisfaction.

Therefore:

- A rigorous evaluation of the effectiveness and cost-effectiveness of the existing Health Quality Ontario Advanced Access and Efficiency Program should be performed.
- Although advanced access may be used to improve access to primary care, it should not be promoted as a tool for improving chronic disease management until further evidence is available on its effectiveness in this regard.
- For practices and teams that have already implemented advanced access, OHTAC recommends a focus on the objective of increasing provider continuity, which may be more important to improving clinical care than access.

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Appendix 1 – Decision Determinants

Decision Criteria	Sub-criteria	Decision Determinant Considerations
Overall Clinical Benefit	Effectiveness	<p><i>Research Question</i></p> <p>What is the effectiveness and cost-effectiveness of advanced access scheduling compared to traditional scheduling for the management of chronic diseases (atrial fibrillation, chronic obstructive pulmonary disease, chronic wounds, coronary artery disease [CAD], diabetes, heart failure, stroke, or multiple chronic conditions) in Ontario adults?</p> <p><i>Clinical and Patient Outcomes</i></p> <ul style="list-style-type: none"> • There was inconsistent evidence of changes in chronic disease clinical measures (hemoglobin A_{1c}, low-density lipoprotein cholesterol, systolic blood pressure) for patients with diabetes; the quality of the evidence was very low. • There was inconsistent evidence of changes in chronic disease clinical measures (hemoglobin A_{1c}, low-density lipoprotein cholesterol, systolic blood pressure) for patients with coronary artery disease/coronary heart disease (CHD); the quality of the evidence was very low. • The authors reported that a majority of patients (55%) were satisfied with an advanced access scheduling system over traditional appointment scheduling systems, but no statistical analysis was conducted, and the quality of the evidence was very low. <p><i>Health System Outcomes</i></p> <ul style="list-style-type: none"> • There were no significant changes in hospitalization rates for patients with diabetes; the quality of the evidence was low. • There were no significant changes in emergency department (ED) visit rates for patients with diabetes; the quality of the evidence was very low. • There was inconsistent evidence of changes in combined ED/urgent care visits for patients with diabetes. One study found no reduction, while the second study reported a significant reduction; the quality of the evidence was very low. • There was a significant reduction in the proportion of patients with diabetes admitted to hospital whose length of stay was greater than 3 days; the quality of the evidence was very low. • There was a significant reduction in hospitalization rates for patients with CHD; the quality of the evidence was very low. • There were no significant changes in ED visit rates for patients with CHD; the quality of the evidence was very low. • There was a significant reduction in the proportion of patients with CHD admitted to hospital whose length of stay was greater than 3 days; the quality of the evidence was very low.
	Safety	<p>A change in appointment scheduling should have little impact on clinical care, but the implementation of advanced access may negatively affect access to health care (and therefore patient safety) if it is indiscriminately implemented. Patients who are older or who have cognitive impairments may have more difficulty making appointments or remembering to make appointments in this type of scheduling system. It may also increase inequity in access if people with less education or lower incomes have more difficulty accessing care.</p> <p>As well, implementation of advanced access that reduces provider continuity (by emphasizing same-day appointments with any physician rather than striving to ensure that patients see their own physician) may negatively impact care.</p> <p>Of the 3 studies that looked at processes of care for adults with chronic conditions, 2 found that regular follow-up for these conditions was worse after advanced access implementation, though clinical outcomes did not consistently worsen or improve (hemoglobin A_{1c}, low-density lipoprotein cholesterol, systolic blood pressure). One study found an improvement in processes of care for adults with chronic conditions, but this was correlated to an increase provider continuity rather than to reductions in wait times.</p>
	Burden of Illness	<p>This review was limited to adults with chronic conditions. Based on data reported in the POWER Study, 62% of women and 55% of men aged 25 and older have at least 1 chronic condition, and 31% of women and 25% of men in this age group have 2+ chronic conditions. The prevalence of chronic conditions and multimorbidity (multiple chronic conditions) increases with age.</p>

	Need	According to the 2010 International Health Policy survey (Commonwealth Fund), Canadians ranked last or next to last on questions dealing with timely access to regular doctors. Findings in Ontario were consistent with the national results.
Consistency with Societal/Ethical Values	Positive	<ul style="list-style-type: none"> • Patients may be happy to have access to care on the day of their choice, rather than waiting for an appointment. • Being able to guarantee access to one's own primary care physician within 24 hours may increase public confidence in/improve public perception of the health care system. • For practices in which access to care is compromised overall, advanced access might be regarded as a useful tool for improving efficiencies.
	Negative	<ul style="list-style-type: none"> • Advanced access may limit the patient's ability to book follow-up appointments in advance. • Advanced access scheduling appears to be tailored to acute health care needs and may adversely affect care for people with chronic health needs.
Value for Money	Economic Evaluation	An economic evaluation will be completed for the entire mega-analysis; it is not currently available.
Feasibility of Adoption into Health System	Organizational Feasibility	Advanced access scheduling is currently being implemented in Ontario (Advanced Access and Efficiency for Primary Care), with an intention for continued roll-out.

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