

# Health Quality Ontario

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## Left Atrial Appendage Closure Device With Delivery System: OHTAC Recommendation

### ONTARIO HEALTH TECHNOLOGY ADVISORY COMMITTEE RECOMMENDATION

- The Ontario Health Technology Advisory Committee recommends that the left atrial appendage closure device with delivery system be publicly funded for patients with nonvalvular atrial fibrillation in whom all oral anticoagulants are contraindicated

### RATIONALE FOR THE RECOMMENDATION

There was consensus among Ontario Health Technology Advisory Committee members that the left atrial appendage closure device with delivery system is effective in improving relevant patient outcomes for people with nonvalvular atrial fibrillation, such as stroke reduction, and represents good value for money in patients with contraindications to oral anticoagulants.

However, in patients without contraindications to oral anticoagulants, committee members felt that the device was not good value for money in comparison to oral anticoagulants.

## Decision Determinants for the Left Atrial Appendage Closure Device With Delivery System

Decision Criteria	Subcriteria	Decision Determinants Considerations
<b>Overall clinical benefit</b> How likely is the health technology/intervention to result in high, moderate, or low overall benefit?	<b>Effectiveness</b> How effective is the health technology/intervention likely to be (taking into account any variability)?	Evidence shows that the left atrial appendage closure device with delivery system is as effective as novel oral anticoagulants in preventing stroke in patients with nonvalvular atrial fibrillation (moderate-quality evidence). There is uncertainty as to whether the device is effective in preventing stroke in patients with contraindications to oral anticoagulants (very low-quality evidence).
	<b>Safety</b> How safe is the health technology/intervention likely to be?	The safety of device implantation has been studied widely, and there are no major concerns regarding procedure-related complications. Operator experience may minimize procedure-related complications.
	<b>Burden of illness</b> What is the likely size of the burden of illness pertaining to this health technology/intervention?	Stroke is the third-leading cause of death and the leading cause of disability in adults in Ontario. Every year in Ontario, there are an estimated 25,500 new stroke events, with 15,500 hospital inpatient admissions. More than 5,500 (22%) of Ontarians die within one year of their stroke. One in five residents in long-term care has had a stroke.
	<b>Need</b> How large is the need for this health technology/intervention?	Patients with nonvalvular atrial fibrillation are at increased risk of stroke. These patients are therefore advised to take lifelong oral anticoagulants to prevent systemic embolization. However, many patients avoid treatment with oral anticoagulants because of adverse effects and drug interactions. The left atrial appendage closure device with delivery system may be an alternative treatment option for patients with contraindications to oral anticoagulants.
<b>Consistency with expected societal and ethical values<sup>a</sup></b> How likely is adoption of the health technology/intervention to be congruent with societal and ethical values?	<b>Societal values</b> How likely is adoption of the health technology/intervention to be congruent with expected societal values?	People with nonvalvular atrial fibrillation report support for the availability of the left atrial appendage closure device with delivery system if it is determined to be safe and effective. They further state that the recommendation of physicians would play a large role in their acceptance of the device and that the device may help reduce the potential cost burden of stroke prevention medications, cost being an issue that affects the equitable access to treatment for nonvalvular atrial fibrillation.
	<b>Ethical values</b> How likely is adoption of the health technology/intervention to be congruent with expected ethical values?	
<b>Value for money</b> How efficient is the health technology/intervention likely to be?	<b>Economic evaluation</b> How efficient is the health technology/intervention likely to be?	The left atrial appendage closure device with delivery system was found to be associated with lower costs and higher quality-adjusted life-years (QALYs) compared with aspirin (an antiplatelet agent) in patients with nonvalvular atrial fibrillation in whom oral anticoagulants are contraindicated. However, the device was found to be associated with higher costs and lower QALYs compared with novel oral anticoagulants in patients with nonvalvular atrial fibrillation in whom oral anticoagulants are not contraindicated.
<b>Feasibility of adoption into health system</b>	<b>Economic feasibility</b> How economically feasible is the health technology/intervention?	Public funding of the left atrial appendage closure device with delivery system may result in additional spending of \$1.1 million to \$7.7 million per year for the next five years.

Decision Criteria	Subcriteria	Decision Determinants Considerations
How feasible is it to adopt the health technology/intervention into the Ontario health care system?	<b>Organizational feasibility</b> How organizationally feasible is it to implement the health technology/intervention?	The left atrial appendage closure device with delivery system is currently being implanted in several hospitals in Ontario.

<sup>a</sup>The anticipated or assumed common ethical and societal values held in regard to the target condition, target population, and/or treatment options. Unless there is evidence from scientific sources to corroborate the true nature of the ethical and societal values, the expected values are considered.

## REFERENCES

- (1) Health Quality Ontario. Left atrial appendage closure device with delivery system: a health technology assessment. Ont Health Technol Assess Ser [Internet]. 2017 Jul;17(9):1-106. Available from: <http://www.hqontario.ca/evidence-to-improve-care/journal-ontario-health-technology-assessment-series>

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