

# OHTAC Recommendation: Transcatheter Aortic Valve Implantation for Treatment of Aortic Valve Stenosis

Ontario Health Technology Advisory Committee

May 2013

# Background

---

An evidence update <http://www.hqontario.ca/en/documents/eds/2013/full-report-tavi.pdf> was conducted by Evidence Development and Standards, Health Quality Ontario, to answer the following research questions:

- For high-risk patients who are candidates for surgery:
  - Is the risk of death following TAVI equal to or less than that following sAVR?
  - Is TAVI associated with an equal or greater improvement in clinical symptoms compared with sAVR?
  - What are the adverse events and complications associated with TAVI?
  - What are the health status and HRQOL of patients following TAVI compared with sAVR?
  
- For high-risk patients who are *not* candidates for surgery:
  - Is the risk of death following TAVI less than that following ST?
  - Is TAVI associated with a greater improvement in clinical symptoms compared with ST?
  - What are the adverse events and complications associated with TAVI?
  - What are the health status and HRQOL of patients following TAVI compared with ST?

# Conclusions

---

The findings of the 2-year follow-up with respect to mortality and adverse events were consistent with those of the 1-year follow-up. TAVI was also associated with improvement in quality of life, although results varied by cohort. Consistent with the 2012 report, TAVI may be cost-effective for patients who are not candidates for surgery.

# OHTAC Recommendations

---

Based on the current available evidence, OHTAC recommends the following:

- In patients with severe aortic valve stenosis who are candidates for surgery, in light of the high complication rates of TAVI as well as similar effectiveness but unfavourable cost-effectiveness compared with surgery, OHTAC does not recommend using TAVI.
- In patients with severe aortic valve stenosis who are *not* candidates for open-heart surgery, TAVI is a reasonable option. However, given the high complication rates and uncertainty regarding the short- and long-term effectiveness and cost-effectiveness of TAVI, OHTAC recommends close follow-up of patient resource use, quality-of-life preference information, and clinical outcome data as a coverage with evidence development through Programs for Assessment of Technology in Health and in collaboration with the Cardiac Care Network. A final decision regarding the use of this technology, including appropriate patient selection in Ontario, should be predicated on the outcomes from the coverage with evidence development.
- Given the complexity of this technology and significant complications associated with its use, OHTAC recommends, in the interests of the highest quality of patient care, that TAVI be restricted to institutions with broad-based experience in its use and with an appropriate volume of patients.