CADTH RAPID RESPONSE REPORT: SUMMARY OF ABSTRACTS

Ivabradine for Adults with Stable Chronic Heart Failure: Clinical Effectiveness
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Questions or requests for information about this report can be directed to requests@cadth.ca
Research Question
What is the clinical effectiveness of ivabradine for patients with stable chronic heart failure?

Key Findings
Two randomized controlled trials regarding the clinical effectiveness of ivabradine for patients with stable chronic heart failure were identified.

Methods
A limited literature search was conducted on key resources including Medline via OVID, the Cochrane Library, University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. No filters were applied to limit the retrieval by study type. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2014 and March 7, 2019. Internet links were provided, where available.

Selection Criteria
One reviewer screened citations and selected studies based on the inclusion criteria presented in Table 1.

Table 1: Selection Criteria
| Population                                      | Adult patients with stable chronic heart failure of New York Heart Association (NYHA) class II or III and with left ventricular ejection fraction (LVEF) > 35% and ≤ 40% |
| Intervention                                   | Ivabradine (taken with or without standard chronic health failure therapies) |
| Comparators                                    | Placebo  
                                              | Standard of care |
| Outcomes                                       | Clinical effectiveness (e.g., worsening heart failure, mortality, hospitalizations, cardiac events), safety (e.g., rate of adverse events) |
| Study Designs                                  | Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies |
Results

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials, and non-randomized studies.

Two randomized controlled trials regarding the clinical effectiveness of ivabradine for patients with stable chronic heart failure were identified. No relevant health technology assessments, meta-analyses, randomized controlled trials, or non-randomized studies were identified.

Additional references of potential interest are provided in the appendix.

Overall Summary of Findings

Two randomized controlled trials\(^1,2\) regarding the clinical effectiveness of ivabradine for patients with stable chronic heart failure were identified.

Both studies were conducted in patients with a left ventricular ejection fraction less than 40% and compared ivabradine plus beta-blockers to beta-blockers alone.\(^1,2\) The authors of the first study concluded that the combination produced a favourable decrease in heart rate, while improving functional and clinical parameters of heart failure patients over the short-term.\(^1\) Similarly, authors of the second study reported that a favourable decrease in heart rate and improvements in health-related quality of life could be achieved with their respective combination.\(^2\)

References Summarized

Health Technology Assessments

No literature identified.

Systematic Reviews and Meta-analyses

No literature identified.

Randomized Controlled Trials

   [PubMed: PM27167103]

   [PubMed: PM27145825]

Non-Randomized Studies

No literature identified.
Appendix — Further Information

Systematic Reviews and Meta-analyses

**Alternative Comparator**


**Alternative Population – Ejection Fraction Unspecified**


**Randomized Controlled Trials**

**Alternative Population – Other Cardiac Condition**


Alternative Population – Ejection Fraction Unspecified


Non-Randomized Studies

Alternative Population – Other Cardiac Condition


Alternative Population – Ejection Fraction Unspecified


Additional References – Registered Trials
