

CADTH Reference List

Claus Risk Assessment Model for Patients Eligible for Routine Breast Cancer Screening

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Key Messages

- No relevant literature was identified regarding the clinical utility of the Claus risk assessment model compared with other breast cancer screening models.
- No relevant evidence-based guidelines were identified regarding the use of breast cancer risk models in determining mammography screening intervals for individuals eligible for routine breast cancer screening.

Research Questions

1. What is the clinical utility of the Claus risk assessment model compared with other breast cancer screening models?
2. What are the evidence-based guidelines regarding the use of breast cancer risk models in determining mammography screening intervals for individuals eligible for routine breast cancer screening?

Methods

Literature Search Methods

A limited literature search was conducted by an information specialist on key resources including MEDLINE, the Cochrane Database of Systematic Reviews, the international HTA database, the websites of Canadian and major international health technology agencies, as well as a focused internet search. The search strategy comprised both controlled vocabulary, such as the National Library of Medicine's MeSH (Medical Subject Headings), and keywords. The main search concepts were breast cancer screening, mammography, and time frame between scans. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2016 and February 1, 2021. Internet links were provided, where available.

Selection Criteria and Summary Methods

One reviewer screened literature search results (titles and abstracts) and selected publications according to the inclusion criteria presented in Table 1. Full texts of study publications were not reviewed. The Overall Summary of Findings was based on information available in the abstracts of selected publications. Open access full-text versions of evidence-based guidelines were reviewed when abstracts were not available, and relevant recommendations were summarized.

Results

No relevant health technology assessments, systematic reviews, randomized controlled trials, or non-randomized studies were identified regarding the clinical utility of the Claus

Table 1: Selection Criteria

Criteria	Description
Population	Individuals eligible for routine breast cancer screening (50 to 74 years old)
Intervention	Mammography screening intervals based on the Claus risk assessment model
Comparator	Mammography screening intervals based on other risk assessment models (e.g., Gail model, BRCAPRO model, Tyrer-Cuzick model)
Outcomes	Q1: Clinical utility (e.g., all-cause mortality, morbidity, time to diagnosis and treatment, quality of life, harms of screening test, consequences of false positives and false negatives, overdiagnosis) Q2: Recommendations regarding the use of breast cancer risk models, and which models are appropriate for use
Study designs	Health technology assessments, systematic reviews, randomized controlled trials, non-randomized studies, evidence-based guidelines

risk assessment model compared with other breast cancer screening models. No relevant evidence-based guidelines were identified regarding the use of breast cancer risk models in determining mammography screening intervals for individuals eligible for routine breast cancer screening.

References of potential interest that did not meet the inclusion criteria are provided in Appendix 1.

Overall Summary of Findings

No relevant literature was found regarding the clinical utility of the Claus risk assessment model compared with other breast cancer screening models; therefore, no summary can be provided.

No relevant evidence-based guidelines were found regarding the use of breast cancer risk models in determining mammography screening intervals for individuals eligible for routine breast cancer screening; therefore, no summary can be provided.

References

Health Technology Assessments

No literature identified.

Systematic Reviews and Meta-Analyses

No literature identified.

Randomized Controlled Trials

No literature identified.

Non-Randomized Studies

No literature identified.

Guidelines and Recommendations

No literature identified.

Appendix 1: References of Potential Interest

Previous CADTH Reports

1. Herington E, McCormack S. Screening and diagnostic services for people at risk of breast cancer: a rapid qualitative review; (*CADTH Rapid response report: summary with critical appraisal*). Ottawa (ON): CADTH; 2019 Oct. <https://www.cadth.ca/sites/default/files/pdf/htis/2019/RC1208%20Breast%20Cancer%20Screening%20Final.pdf> Accessed 2021 Feb 11.
2. Ho C, Visintini S. Risk-based breast cancer screening versus population-based breast cancer screening. (*CADTH rapid response report: summary with critical appraisal*). Ottawa (ON): CADTH; 2018 Jan. <https://www.cadth.ca/sites/default/files/pdf/htis/2018/RC0950%20Breast%20Cancer%20Screening%20Final.pdf> Accessed 2021 Feb 11.

Non-Randomized Study – Alternative Outcome

3. McCarthy AM, Guan Z, Welch M, et al. Performance of Breast Cancer Risk-Assessment Models in a Large Mammography Cohort. *J Natl Cancer Inst.* 2020 05 01;112(5):489-497. [Medline](#)

Evidence-Based Guideline – No Relevant Recommendations

4. Breast cancer risk assessment and screening in average-risk women. Washington (DC): The American College of Obstetricians and Gynecologists; 2017 Jul. <https://www.acog.org/clinical/clinical-guidance/practice-bulletin/articles/2017/07/breast-cancer-risk-assessment-and-screening-in-average-risk-women>. Accessed 2021 Feb 5. See: *Clinical Considerations and Recommendations*, "How should individual breast cancer risk be assessed?"

Clinical Practice Guidelines – Methodology Not Specified

5. Position statement on screening mammography. Columbia (MD): The American Society of Breast Surgeons; 2019. <https://www.breastsurgeons.org/docs/statements/Position-Statement-on-Screening-Mammography.pdf> Accessed 2021 Feb 5. See: Risk Assessment, "Age 30 or above...", page 4; ASBrS Recommendations – Women With Higher-Than-Average Risk, page 6