The Effectiveness of Annual Mammograms Versus Triennial Mammograms in Women Under the Age of 50

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The Effectiveness of Annual Mammograms vs Triennial in Women Under 50
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Introduction
The current recommendation for mammography frequency is every 2 years after the age of 50, but newer data shows that yearly mammograms are effective in the early detection of breast cancer, even before the age of 50. This poses the questions: would changing the national recommendations for mammogram frequency help prevent deaths associated with breast cancer? Do the benefits outweigh the risks associated with increased radiation exposure?

PICO Question
P = In women under the age of 50
I = is a yearly mammogram
C = more effective than a mammogram every 3 years
O = in detecting breast cancer?

Methods
- Databases: CINAHL, MEDLINE, Google Scholar, Cochrane Library
- Search terms: mammography, mammogram, annual, yearly, every 3 years, triennial, breast cancer
- Inclusion criteria
  a. Peer reviewed
  b. Published between 2018–2024
  c. Written in English
- Exclusion criteria
  a. Older than 5 years
Total number of articles: 10

Results
- The results of the literature review were mixed
- Annual screenings yielded positive results:
  ○ Detecting cancer in earlier stages
  ○ Significantly reducing the risk of cancer associated death
- Some of the risks associated with increased frequency of mammogram screenings may outweigh the benefits
  ○ Annual radiation exposure
  ○ False positive screenings
  ○ Overdiagnosis

Recommendations
- There is a lack of research within the specific time frame of yearly versus every 3 years
- There is a lack of research within the specific age range
- The literature review yielded mixed results
- The benefits of yearly mammograms may not outweigh the risks associated with increased radiation exposure and false positive screenings
- It is advisable that women discuss with their health care providers the frequency of mammography screening taking into account individual risks of breast cancer
- More research is needed on the benefits versus risks of yearly mammogram screenings in women under the age of 50

References
Blaus, Bruce (2014). Blausen 0628 Mammogram. CC by 3.0. DOI:10.15347/wjm/2014.010