



Computed Radiography (CR) mammography compared with screen film mammography and Digital Radiography (DR) mammography

Version Control

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Background

The Clinical Advisory Committee (CAC) notes:

- most jurisdictions use DR mammography; however, some still outsource BreastScreen mammography services to radiology firms that use CR mammography;
- CR mammography machines deliver a higher radiation dose and the images are poorer quality than that of the DR mammography images; and
- CR Mammography remains compliant under the National Accreditation Standards (NAS) Appendix E: Quality Control Procedures and Standards for CR Mammography.

Literature reviewed included 'Digital Compared with Screen-Film Mammography: Performance Measures in Concurrent Cohorts within an Organized Breast Screening Program,' *Radiology*, September 2013, Volume 268, Issue 3, from (<https://pubs.rsna.org/doi/abs/10.1148/radiol.13122567>); and 'Digital Compared with Screen-Film Mammography: Measures of Diagnostic Accuracy among Women Screened in the Ontario Breast Screening Program,' *Radiology*, March 2016, Volume 278, Issue 2, from (<https://pubs.rsna.org/doi/abs/10.1148/radiol.2015150733>); 'Comparison of direct digital mammography, computed radiography, and film-screen in the French national breast cancer screening program,' *AJR Am J Roentgenol*, 2014 Jan, 202(1):229-36; and 'Comparative performance of modern digital mammography systems in a large breast screening program,' *Med. Phys.* 40, 21915, 2013, from (<http://dx.doi.org/10.1118/1.4829516>.)

The CAC reviewed guidelines from BreastScreen Australia National Accreditation Standards - Appendix E.

CAC decision/recommendation

The CAC is not in a position to advise jurisdictions that they must stop using CR mammography.

BreastScreen Australia Services are still able to use CR mammography at this time, given that it meets the requirements of the National Accreditation Standards; however, for any future mammography machine purchases for screening or assessment (including for mobile vans) and new outsourcing arrangements, the CAC advises that DR mammography must be considered as the first priority. CR mammography is only to be used when there are no other options available.

This advice is clinical guidance for the BreastScreen Australia Program for consideration and suggested implementation within each jurisdiction.