



Facts and Issues around Mammographic / Breast Density

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Introduction

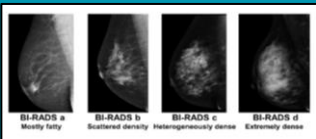
Developed under the auspices of COSA. Scan QR code above for document. Although primarily targeted to the professional groups represented by COSA and other health professionals, the findings are of interest to the community in general.

Key Points

- ❖ High breast density is a known risk factor for breast cancer.
- ❖ The benefits of continued mammography screening irrespective of density.
- ❖ The importance of considering mammographic density-associated risk in the context of overall risk of an individual woman, due to other factors.
- ❖ The complexities of providing breast density information and supplementary screening, which require careful explanation, and still may cause anxiety.
- ❖ The need for further research and important ongoing studies and clinical trials.

What is breast density?

Breast density, aka mammographic density, refers to white regions on a mammogram (see Figure below). The white regions contain predominantly fibroglandular tissue, whereas the darker regions are predominantly adipose tissue. They are scored on the BIRADS scale a-d (1).



How is high breast density detected?

A mammogram is required to assess breast density. Breast density bears no relation to how breasts look or feel

What causes a woman's breast density?

Environmental and genetic factors are involved. Hormone replacement therapy increases breast density.

How does high breast density affect detection of breast cancer?

Breast cancers appear white on a mammogram, as does dense tissue.

What to tell women about their breast density?

Most important is that even for women with dense breasts, mammography remains the best screening modality for breast cancer. BreastScreen Australia (BSA; 2020) does NOT recommend recording their breast density, other than currently in WA, where breast density has been reported on for over a decade (2).

There remain uncertainties around the measurement accuracy and the clinical management of women with dense breasts, and revising recommendations will also result in significant cost implications both for women and the health system.

RANZCR, (2018) recommend that breast density be listed in the mammogram report. BCNA provides information on mammographic density designed specifically for women in the community, as does the Information Forum on Mammographic Density (InforMD, 3), and Pink Hope.

What else to tell younger women about their breast density?

Breast cancer is relatively uncommon in younger women, who should report any abnormalities.

What are the issues associated with Supplementary Screening

No randomised controlled trials evaluating supplemental screening tests in women with dense breasts have sufficient follow up to determine a survival benefit. There are trials ongoing overseas to test the detection benefits of supplementary screening tests.

What about women who want to know their breast density?

There are currently no clinical guidelines for breast screening or managing cancer risk for women with dense breasts, due to imprecision in measurement and insufficient evidence to guide best practice. However, if women wish to be informed about their breast density, the only option available is to refer them to a private radiology provider who offers breast density measurement but at the patient's expense

Western Australia

Currently, BreastScreen WA is the only Australian screening program to notify women if they have dense breasts (BIRADS categories c & d) by dichotomous assessment, and have been doing so for over 10 years (4).

Breast density notification in the USA and Canada

Non-uniform breast density notification laws in 38 American States to date have led to a fragmented approach to measuring breast density, notification and management strategies. Unlike Australia, the US has no organised national mammography screening program, so evidence and observations from the US is of limited relevance to Australia in relation to health policy. However, Canada does have a population-based breast screening program, and British Columbia adopted the policy of notifying all women of their BI-RADS density category in 2018. They provide ultrasound to women with dense breasts with a doctor's referral.

References

1. ACR Statement on Reporting Breast Density in Mammography Reports and Patient Summaries. 2020.
2. Dench EK, Darcey EC, Keogh L, McLean K, Pirikahu S, Saunders C, et al. Confusion and Anxiety Following Breast Density Notification: Fact or Fiction? J Clin Med. 2020;9(4).
3. Hugo HJ, Zysk A, Dasari P, Britt K, Hopper JL, Stone J, et al. InforMD: a new initiative to raise public awareness about breast density. *Cancermedicalscience*. 2018;12:80
4. Kench, E. K., E. C. Darcey, L. Keogh, K. McLean, S. Pirikahu, C. Saunders, S. Thompson, C. Woulfe, E. Wylie and J. Stone (2020). Confusion and Anxiety Following Breast Density Notification: Fact or Fiction? J Clin Med 9(4).7.

