

## Digital breast tomosynthesis versus digital mammography: recall rate by mammographic density - interim analyses

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**Purpose:** To compare recall rates using synthetic mammography + digital breast tomosynthesis (SM+DBT) versus digital mammography (DM) in the Norwegian Breast Cancer Screening Program, stratified by mammographic density.

**Methods and Materials:** As part of a randomized controlled screening trial performed in Bergen, 7037 women were screened with SM+DBT and 7052 with DM, January-December 2016. We obtained continuous measures of volumetric breast density (VBD) using an automated software (Volpara version 1.5.1). Recall rate for positive mammographic findings was calculated for women who underwent screening with the two techniques, stratified by quartiles of VBD; (1: <3.5%; 2: 3.5-5.4%; 3: 5.4-8.8% and 4: >8.8%). Two-proportion z-tests was used to test for statistical significance between the groups ( $p < 0.05$ ).

**Results:** Recall rate was statistically significantly lower for SM+DBT (3.0% [208/7037]) compared to DM (3.6% [254/7052],  $p = 0.03$ ). The recall rate increased by mammographic density for SM+DBT, from 2.1% for VBD-1 to 4.5% for VBD-4. For DM, the recall rate remained the same for different quartiles of mammographic density. For DM, the highest recall rate (4.3%) was observed for VBD-3.

**Conclusion:** Women screened with SM+DBT had a lower recall rate compared to those screened with DM. The higher recall rate among women with dense breast and screened with SM+DBT need to be followed closely according to cancer detection and rate of false positive screening results.