

SUMMARY

Supplemental Breast MRI for Women with Extremely Dense Breasts: Results of the Second Screening Round of the DENSE Trial

[Veenhuizen SGA, de Lange SV, Bakker MF, Pijnappel RM, Mann RM, Monninkhof EM, Emaus MJ, de Koekkoek-Doll PK, Bisschops RHC, Lobbes MBI, de Jong MDF, Duvivier KM, Veltman J, Karssemeijer N, de Koning HJ, van Diest PJ, Mali WPTM, van den Bosch MAAJ, van Gils CH, Veldhuis WB; DENSE Trial Study Group. Radiology. 2021 May;299\(2\):278-286. doi: 10.1148/radiol.2021203633. Epub 2021 Mar 16.](#)

Volumetric breast density, supplemental breast cancer screening, early cancer detection

Why it matters

Key takeaways

The second screening round of the DENSE trial demonstrated a large reduction in the false positive rate (FPR) seen in the first screening round of the trial. This is promising news for the feasibility of using Volpara TruDensity™ to identify candidates for supplemental MRI screening.

Study location

Netherlands, multicenter.

Study participants

40,373 participants with extremely dense breast tissue and normal mammography results, aged 50-75 years.

Study design

Prospectively collected positive MRI cases from within the DENSE trial (randomized controlled trial), 2011-2015.

Methods

- Of the women with normal mammography results and extremely dense breasts (as identified by TruDensity) who participated in supplemental MRI screening during the first screening round, 3,436 women received a second round of MRI screening.
- The cancer detection rate (CDR) and FPR were measured for the second screening round.

Study results

- The CDR was 5.8 per 1000 exams, which was a decrease from the previously measured CDR of 16.5 per 1000 exams during the first stage of the trial.
- The FPR was 26.3 per 1000 exams, which was a large decrease from the previously measured CDR of 79.8 per 1000 exams during the first stage of the trial.

Conclusions

- The large reduction of the FPR is a promising performance indicators for the feasibility of supplemental MRI for women with extremely dense breasts (as identified by TruDensity).