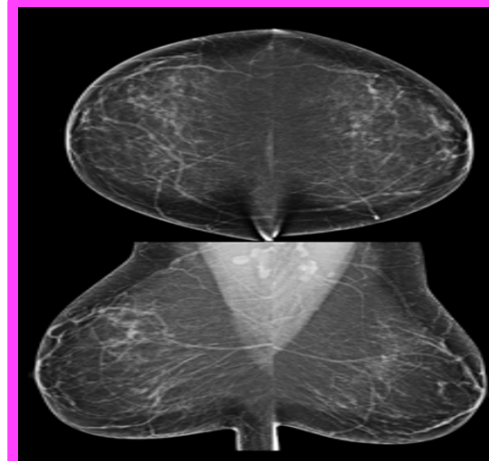21.10.21
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Short summary – website

A Research Study to Investigate the Use of Artificial Intelligence to Improve Breast Cancer Screening

The Cambridge Cohort - Mammography East-Anglia Digital Imaging Archive (CC-MEDIA)

We screen for breast cancer by looking at X ray scans of breast tissue. This scan is called a mammogram. We are performing research to investigate the use of artificial intelligence (AI) algorithms in breast cancer screening to:

- Improve the accuracy of reading mammograms and cancer detection
- Ease the human workload of reading mammograms
- Make reading more efficient by marking and prioritising mammograms believed to show cancer
- Identify women with dense breast tissue who may benefit from additional imaging methods.

A normal breast screening mammogram

What does the research involve?
This research involves creating a database of patients' mammograms taken as part of the NHS Breast Screening Programme at Norwich and Cambridge. The database will contain the mammogram images and information related to the mammogram, which is routinely collected and stored by each NHS Breast Screening Programme site between 2011 and 2022.

The database will be used to test the effectiveness of various AI computer software programmes (algorithms), to see how they can be used in breast cancer screening to improve both patient outcomes and the efficiency of the NHS Breast Screening Programme.

Who will have access to the database?
Database research staff will only have access to de-identified patients' mammogram images and related information to carry out this testing. De-identified means that all the information that could be used to identify you has been removed. This process will be carried out by study approved Database Managers.

Database research staff will work with academic institutions and commercial health companies to test their AI algorithms at the University of Cambridge. The academic institutions and commercial health companies will not have access to the database. Only in specific circumstances, approved by an oversight committee and governed by a legal contract, will small amounts of de-identified data be shared outside the UK. One reason for sharing data maybe to tune the algorithm to different mammography machines.

All research has been approved by the appropriate national ethics boards.

What happens if I don't want my mammograms to be used?
If you do not want your mammograms and related information to be used for this research, or if you have any questions about this study, please contact our Breast Research Nurses on:

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More information about this study is available on our website
https://radiology.medschl.cam.ac.uk/cc-media/