

DNA test will spot those at risk of breast cancer

Chris Smyth Health Editor

Millions of women could be told their risk of getting breast cancer when they go to NHS screening checks after scientists showed that a genetic test could pinpoint who should be offered drugs to prevent the disease.

Thousands more women could be then offered a pill costing 4p a day to halve their breast cancer risk under plans to transform screening from a service that purely detects cancer to one that tries to prevent it.

Women at high risk could be checked every year while those at lower risk could be told that they did not need to be screened for another ten years.

A pilot scheme has been carried out in Manchester, which if successful could be extended to other areas within five years.

Official guidance says that about half a million women with a strong family history of breast cancer are eligible for drugs such as tamoxifen to cut their risk

of developing the disease. The NHS may recommend anastrozole, a more effective drug at preventing cancer for women who have gone through the menopause.

"We should rethink breast cancer screening as a prevention programme," Jack Cuzick, of Queen Mary University of London, leader of the latest study, said. "Our vision is that when you go to your first screening appointment you would not only get a mammogram but have a chance to get your risk assessed."

He has developed a £50 test using 88 genetic variants linked to breast cancer. A study of 995 women, to be published in the *Journal of Clinical Oncology*, finds that it reclassified the risk level of one in eight women compared with existing methods, which rely mainly on a family history.

Half the 85 women flagged as higher risk went on to get cancer, compared with a quarter of 44 demoted to moderate risk. Professor Cuzick estimated that it could mean another 400,000

women flagged as being at high risk compared with present methods.

More than 55,000 British women get breast cancer every year and more than 11,000 die.

The pilot scheme in Manchester looked at 58,000 women. The high risk group suffered twice as many cancers as those at low risk, Gareth Evans, of the University of Manchester, leader of the scheme, said.

A follow-up study will now monitor the psychological impact and cost of giving high-risk women preventative drugs and annual screening, while those at lower risk come back less frequently.

"If we can show that works, we can go to the national screening programme and say 'This is the right way to go,'" Professor Evans said.

Anne Mackie, director of programmes for the UK national screening committee, said: "These are exciting prospects and we wait with interest to see the final outcomes of the study."

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