MHH investigates prevention of cervical cancer with HPV self-testing

20,000 women from the Hanover region to take part in study to improve prevention

Cervical cancer is one of the most common diseases of the female reproductive organs. Human papilloma viruses, HPV for short, are almost always responsible for cervical cancer and the corresponding precancerous lesions. As part of the statutory preventive medical check-up, women from the age of 20 can have a cell smear taken from the cervix once a year, the so-called Pap test, to detect cell changes. From the age of 35, they are tested for human papilloma viruses every three years in combination with the Pap smear. The problem: 30 per cent of all women in Germany do not regularly take up the offer of statutory early detection. For women from socially disadvantaged backgrounds or with a migration background, this rate is even higher.

A remedy could be an HPV self-testing procedure for which women would no longer have to go to the doctor’s office. A research group of the Hannover Medical School (MHH) from the Department of Gynaecology and Obstetrics now wants to clarify in a study whether such a self-test for home use can better reach the risk group. The study is part of the prevention programme of the Comprehensive Cancer Center (CCC) Hannover of the MHH and runs under the patronage of the Lower Saxony Ministry for Social Affairs, Health and Equality.

In Germany there is little experience with HPV self-tests for screening. Since January 2020, screening for cervical cancer has been newly regulated: Women aged 20 and over will receive invitation letters to be made aware of the offer of screening. One way to reach those who do not want to come to a doctor’s office is through HPV self-testing. "In other countries, such as the Netherlands, HPV self-testing is already established. In Germany, there is very limited experience so far. Our Hanover self-collection study for the prevention of cervical cancer is intended to provide initial information on the best possible implementation of HPV self-examination by non-participants, so that it can supplement regular screening in the future," says Professor Dr Peter Hillemanns, Director of the Clinic for Gynaecology and Obstetrics and Director of the CCC Hannover at the MHH.

20,000 women in the Hanover region will receive HPV self-tests

Through random sampling, 20,000 women from the Hanover region aged 30 to 65 will be provided with an HPV self-test. The self-test can be done at home and then sent by post to the laboratory of the gynaecological clinic for examination. In the study, the women are divided into two groups: The first group of 10,000 women will be sent the self-smear test directly with instructions and a questionnaire. The second group first receives an information letter with which they can request a self-smear. The participation rates of the invitation models will later be compared and the CE-certified HPV self-sampling systems used will be evaluated.

Further clarification of positive HPV detections needed
"HPV infections are common, but only in very few cases actually lead to the development of cancer or precancerous lesions. Nevertheless, in the case of a positive HPV test, an additional gynaecological examination by means of a Pap smear is necessary for further clarification," explains private lecturer Dr Matthias Jentschke, head of the study and managing senior physician at the Department of Gynaecology and Obstetrics at MHH. "We hope that the study will motivate women in particular who have not had a check-up for a long time to go to a specialist practice for further clarification."

If the Pap smear is abnormal, a special examination, colposcopy, is carried out in the clinic, during which a tissue sample is taken from the cervix. If the results are normal, the participants are informed in writing, with the recommendation that they continue to participate in regular cancer screening examinations.

Patron is Minister of Social Affairs Daniela Behrens

As Minister for Social Affairs, Health and Equality, Daniela Behrens is particularly concerned about screening. "In cancer screening and early detection, the aim is to detect cancer before it develops or causes discomfort. Unfortunately, we still reach too few women for regular cervical cancer screening, especially those with a migration background or low income. With the option of HPV self-testing, the study offers a particularly low-threshold concept, which reduces possible barriers and makes it easier to reach non-participants for screening," emphasises the Minister.

The active phase of the self-collection study will last until summer 2022, after which initial results are expected. German Cancer Aid is funding the study with 750,000 euros.

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Professor Dr Peter Hillemanns (left) and PD Dr Matthias Jentschke with the HPV self-tests
Minister of Social Affairs Daniela Behrens, Ministry of Social Affairs, Health and Equality of Lower Saxony