
Is the referral system for the breast cancer pathway effectual?

EDITORIAL

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Are the criteria for justified suspicion of breast cancer adequate, and are the right patients referred to the specialist health service for investigation?

In 2015, the Norwegian Directorate of Health introduced 28 different cancer pathways [\(1\)](#). One of the goals was to ensure short waiting times for initiating treatment in the specialist health service. A patient's GP can refer them to the cancer pathway if breast cancer is suspected for one of the following reasons: suspected tumour based on palpation (usually a firm mass that is not well defined, it may be fixed to surrounding tissue, skin or fascia); new-onset nipple inversion where the nipple does not come out on stimulation; new-onset skin tethering; sores or eczema on the nipple or areola; or clinical suspicion of cancer in lymph nodes in the armpit [\(2\)](#). The Norwegian Directorate of Health also stipulates that a new lump in the breast in women over the age of 50 is to be regarded as suspected malignancy.

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The waiting time for initiation of investigation in the specialist health service is shorter for patients referred to the cancer pathway than for other patients, and it is therefore vital that the right patients are referred. However, despite the cancer pathway being introduced eight years ago, little research has been conducted into whether the referral process for the pathway is effectual. Are the criteria for justified suspicion adequate for finding most patients with breast cancer? Are the criteria specific enough for general practitioners and specialists to interpret them in the same way? And are the referrals in line with the criteria for justified suspicion of cancer?

In the Journal of the Norwegian Medical Association, Holmen et al. present an important study in which they show that one in five external referrals to the breast cancer pathway at the Breast Screening Centre, Oslo University Hospital, in 2020 did not meet the criteria for justified suspicion (3). This finding is supported by a SINTEF report in which GPs and doctors at various hospitals were interviewed about their experiences with four different cancer pathways (breast, prostate, lung and skin cancer) (4). The GPs expressed uncertainty in terms of prioritising patients to the cancer pathway, and they were not always very familiar with the criteria. It also emerged that patients referred to the cancer pathway were regularly withdrawn from the pathway because the hospital believed their referral did not meet the inclusion criteria.

The limited number of patients with suspected breast cancer that GPs meet and the numerous guidelines they need to adhere to may partly explain why not all referrals to the breast cancer pathway meet the criteria for justified suspicion. In contrast, the Breast Screening Centre at Oslo University Hospital received 5200 external referrals in 2020 (3), and the radiologists are therefore well versed in assessing these against the criteria for justified suspicion of breast cancer.

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What are the implications of deprioritising referrals? Since 2018, radiologists at Oslo University Hospital have been downgrading referrals to the breast cancer pathway that do not meet the criteria for justified suspicion (3). In the study by Holmen et al. in 2020, only 3 %, i.e. 7 out of 214 women with downgraded referrals, were diagnosed with breast cancer. This may indicate that their system is successful and that the criteria for justified suspicion of breast cancer have a high sensitivity. For women in the age group 40–50 years, the proportion with a downgraded referral who received a breast cancer diagnosis was somewhat higher (9%; 5 out of 56 women) (3). New studies should be conducted to establish whether this is a robust finding or purely random due to

the small numbers involved. If the finding is robust, it may indicate that the sensitivity of the criteria for justified suspicion of breast cancer is higher for some age groups than others.

The SINTEF report also found that hospital doctors sometimes transfer patients who are outside the pathway system to a cancer pathway (4). This 'prioritisation' is well known among those who work with breast cancer, however no research has been conducted on the extent of this practice, or whether doctors transfer patients to the cancer pathway because the information in the referral constitutes a justified suspicion or for other reasons, or how many of these patients are diagnosed with breast cancer. For patients who are downgraded, Oslo University Hospital has a routine for sending out a standard letter to the referring doctor, informing them that the referral has been downgraded (3). This communication is necessary as both the referring doctor and the patient may be expecting a short waiting time for an appointment.

The study by Holmen et al. is important, as it shines a spotlight on the use of resources in the health service. More studies are needed on whether the referral process for the cancer pathway is effectual, in relation to breast cancer and other forms of cancer. Mapping the incidence of cancer in patients referred within and outside the cancer pathway system, including those whose referral was re-prioritised, would enable assessments of the adequacy of the criteria for justified suspicion. It would also make it possible to assess whether other changes should be made to referral procedures. For example, consideration should be given to whether cancer pathway guidelines should include procedures for reprioritising referrals and for information flow when reprioritisations are made.

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