The Health Technology Report Series has been developed by the Institute of Family Medicine and Public Health, University of Tartu.

Mammography screening for breast cancer

Summary

Objectives: To update the evidence on the effectiveness of breast cancer screening in order to improve screening procedures in Estonia.

Methodology: In order to obtain overview of scientific articles about assessing the efficiency of using mammography screening in different countries and cost-effectiveness of screening programmes, literature searches were conducted in MEDLINE and Cochrane Reviews databases. In addition, searches were performed on websites of breast cancer prevention programs of various countries to find information on the organization and efficacy of screening programs. International guidelines on breast cancer screening were analysed and compared to the organization of breast cancer screening in Estonia.

Results: The current evidence on efficacy of breast cancer screening shows, that up to 20% decrease in mortality to breast cancer can be achieved, in case the screening programme is run according to quality standards of screening programmes, and coverage of at least 70% is achieved.

In parallel with these health benefits, up to three cases of overdiagnosis of breast cancer per one death prevented can occur. The net health benefit to risk balance has been analysed and discussed in a number of scientific articles and international consultations, and until now no government or international organization has advised against breast cancer screening.

In Estonia, only 32% of women diagnosed with breast cancer were in the age group of 50 to 62 years, which is the current target of the national screening programme. As a consequence, only 14% of the breast cancer cases diagnosed originated from screening.

The survival of breast cancer patients in Estonia is 10% lower than in other European countries, and most of breast cancer cases diagnosed are in the advanced stage. Survival has improved only in the age group of patients under 60 years of age at diagnosis, whereas the incidence of advanced cancer increases in the older age groups.

Conclusions: Widening the age limits of target group to women until age of 69 years in Estonia, as well as inclusion of women without health insurance is necessary to improve the coverage of target population and maximize health gains of the screening programme. Additional recommendations to improve the organization of the national screening programme and to implement appropriate quality improvement measures were proposed.

Citation: Kiisk E, Petersen M, Kuusemäe K, Padrik P, Kiivet RA. Rinnavähi mammograafiline sõeluuring. Tartu: Tartu Ülikooli peremeditsiini ja rahvatervishoiu instituut; 2016.