Patients' Level of Knowledge of State-Funded Screening Programs in Family Physician's Practice

Alevtina Hanturova[1], Aiva Doroško[1], Anastasija Tomilova[1] and Līga Kozlovska[2]

1. Rīga Stradiņš University, Dzirciema Street 16, Rīga LV-1007, Latvia

2. Rīga Stradiņš University, Department of Family Medicine, Anniņmuižas Blvd 26a, Rīga LV-1007, Latvia

Abstract: Introduction: Screening tests have been shown to find cancer early and to reduce the risk of dying from cancer. In Latvia from 2000-2015 registered oncological patients had increased. At the end of year 2015, the 74,540 patients with oncology were registered. Aim: To evaluate respondents' knowledge about screening and the reasons for non-use screening. Materials and methods: A cross-sectional study uses a survey of family physician's patients. Responded data were summarized and processed with IBM SPSS 23 descriptive and analytical statistics. Results: In this study 102 patients' survey data are used, at age group from 50 to 74 years. And 67% ($n = 68$) from of overall respondents were women, and 33% ($n = 34$) of respondents were men. The 35% of respondents visited family doctor 5 to 10 times per year, 29%—2-5 times per year, 19%—more than 10 times per year and 17%—once per year. Knowledge about screening programs of all respondents: 21% ($n = 21$) rated it as good, 26% ($n = 27$) rated it as bad and 53% ($n = 54$) rated it as average. And 49% of respondents said that screening includes colorectal cancer test, 65% that screening includes cervical cancer test, and 62% noted that screening includes mammography. Respondents identified the following reasons why they cannot use screening: 22% lack of informative material, 11% fear that diagnosed oncology, 14% do not feel that this is important, another 53% of respondents always use screening. Correlation was found between the number of family doctor's visit per year and respondent's knowledge about screening programs ($p = 0.015$, $r = 0.24$). Conclusions: Despite the increased number of health improvement campaigns, lack of knowledge about screening programs still exists. The results show that half of respondents still do not use screening. Population health and knowledge can be improved by regular health check through family physician.

Key words: Cancer screening, family medicine, oncology.

1. Introduction

Screening tests have been shown to find cancer early and to reduce the risk of dying from it. In the last years morbidity and mortality rates of cancer had been increased, especially of high ratio in late-stage cases in Latvia. From the year 2000 to 2015 the number of registered oncological patients had increased in Latvia. At the end of the year 2015 there were 74,540 patients registered with oncology [1].

Three state-funded screening programs have been created in Latvia since 2009. Screening programs include: breast cancer screening, cervical cancer screening and colorectal cancer screening. Breast cancer screening includes mammography and it is offered once every two years for women who are 50 to 69 years old. Cervical cancer screening includes cervical cytology examination and it is offered once every three years for women who are 25 to 70 years old. Colorectal cancer screening includes fecal occult blood test and it is offered once every year for men and women who are 50 to 74 years old [2].

In Latvia 2015, cervical cancer was in the 9th place, breast cancer was in the 1st place among all types of cancer in women and colorectal cancer was in the 3rd place among all types of cancer in both sexes. Since 2009 about 120 women in Latvia die from cervical cancer every year, from breast cancer approximately 435 women and 703 people died from colorectal cancer [1]. Mortality rates show that early cancer detection and prevention capabilities are incompletely used in Latvia.

Corresponding author: Līga Kozlovska, M.D., research fields: family medicine.

Cancer screening programs are secondary prevention, and their aim is to discover pathogenic states, lowering mortality of cancers and costs of treatment and rehabilitation and improving population health [3]. In best cases, when people are using regularly screenings, the disease should be detected at early stage, then early treatment can stop or at least slow the progress of disease and possible impairment or disability [3].

Screening tests characterize sensitivity, specificity, positive predictive value, and negative predictive value and all of them measure test performance [4].

Timely diagnosis of cancer in most cases, patients can be completely cured of cancer. Screening is meant for health improvement to overall population.

Cancer screening programs in Latvia have been in operation for 9 years. Although there are many informative campaigns, patients' response and mortality rates are without positive dynamic. The significance of study is to understand why there is so low patients' response and more purposefully to find suggestions on how to improve situation in our country.

2. Aim

First of all, to determine people's knowledge about screening programs. Secondly, to determine how often people visit their general practitioners and whether there is statistically significant correlation between visits and patients' knowledge about screening programs. In this study, we want to pay attention to reasons why people are not using state funded screenings as much as they should, thereby it would give ideas how to improve usage of screenings.

3. Material and Methods

This is a quantitative, cross-sectional, retrospective study. Data registration form was developed and survey method was used for data collection. The study included 102 patients' questionnaires from two family physician's practices. Nameless patient registration and numbering were used. Patients were selected according to the Latvian organized cancer screening programs at age group from 50 to 74 years.

Research data were summarized and processed with IBM SPSS version 23 and Microsoft Excel 2013 software. Descriptive statistics, such as frequency and percentage, were applied. Pearson correlation test was used to detect possible correlation (p-value < 0.05 was accepted as statistically significant).

4. Results

The study included 102 patient's survey data, 67% ($n = 68$) from overall respondents were women, and 33% ($n = 34$) of respondents were men. The age of patients ranged from 50 to 74 years, average age—60.95 ± 6.59.

The 35% of respondents visited family doctor 5 to 10 times per year, 29%—2-5 times per year, 19%—more than 10 times per year and 17%—once per year. Knowledge about screening programs of all respondents was as follow: 21% ($n = 21$, 6% were men and 15% women) rated it as good, 26% ($n = 27$, 15% were men and 11% women) rated it as bad and 53% ($n = 54$, 13% were men and 40% women) rated it as average (Fig. 1).

Only 49% of respondents said that screening includes colorectal cancer test, 65% that screening includes cervical cancer test and 62% noted that screening includes mammography (Fig. 2).

Respondents identified the following reasons why they cannot use screening: 22%—it is lack of informative material, for 11%—fear from diagnosed oncology, 14%—do not feel that it is important, another 53 % of respondents always use screening. The 98% of patients noted that the screening system is required. After screening was completed mood of 84% patients was mostly positive. Correlation was found between the number of family doctor's visit per year and respondents' knowledge about screening programs ($p = 0.015$, $r = 0.24$).
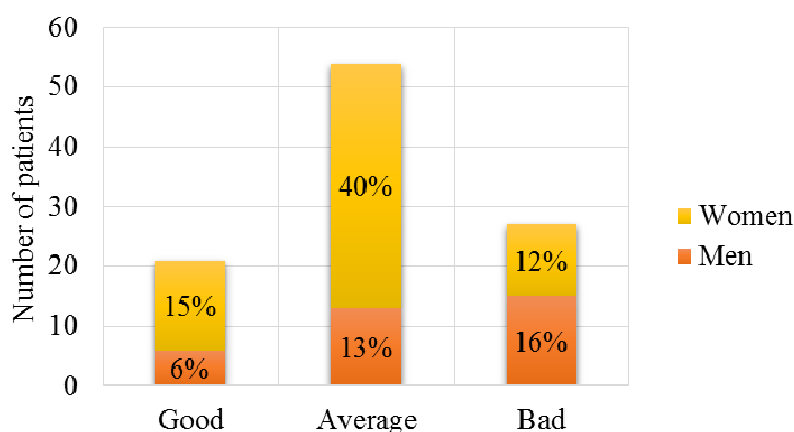
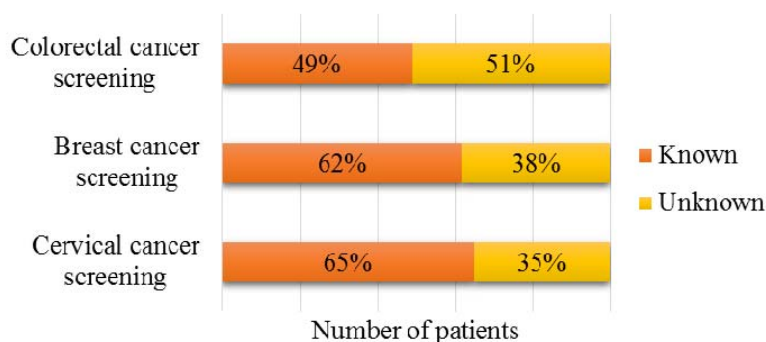**Fig. 1   Patients' level of knowledge of state-funded screening.**

Fig. 2   Patients' knowledge about state-funded cancer screening programs in Latvia.

5. Discussion

Currently, there are all of the necessary diagnostic and treatment facilities to be able to detect early precancerous conditions and cancer in Latvia. There are all of the elements for better outcomes in Latvia.

More than a half of European countries have developed guidelines and recommendations for each cancer screening program separately, unfortunately in Latvia, these guidelines still do not exist. Level of patients' awareness, of state-funded, fully compensated cancer screening tests influence the frequency of use of them. Target population involvement must be at least 75% to provide well-organized and effective cancer screening. Cancer screening programs in Latvia have been working for 9 years and the results of population involvement for 2015 are as follows: cervical cancer screening was undergone only by 25% of people, breast cancer

screening—only 34.9% and colorectal cancer screening —only 10.9% [2].

Study "Knowledge and attitudes of primary healthcare patients regarding population-based screening for colorectal cancer" of Ramos et al. (2011) —showed that patients not only care about their health, but also believe in advice received from doctors and nurses to take a screening test: of all respondents that answered, 72.1% were women and 69% were men [5]. This supports the findings that for patients it is important how primary health care providers communicate with them. Most mentioned reasons for not doing fecal occult blood test are that patients fear to have a cancer, where 42.5% women and 24.1% men mentioned that reason [5]. Our study results have showed that 11% of all respondents, not doing screening due to fear that will diagnosed oncology.

Most common reasons for declining mammography

amongst women in study in Georgia Region, were: "mammography hurt", "No one in my family has breast cancer", " I'm too young/old to get breast cancer", "Having too many mammograms can cause breast cancer", "I do not have time to get mammogram", "My breasts are too small to get mammogram", "I am confused about how often I should get a mammogram" [6]. Common reasons for not doing cervical cancer screening amongst women are embarrassment at exposing private parts, other reason is pain, because they experience painful test in the past and less common reasons are mistakenly believed that cervical cancer is not relevant to them and they do not realise importance of regular screening [7]. Most of those reasons indicate about lack of information and therefore knowledge is not good as should be. Our study revealed that 22% of all respondent's lack of informative material and 14%—do not feel that this is important.

General practitioners have an important role—women are more likely to attend for screening if they have discussed it with their general practitioner [8]. It is necessary to promote the fact that each patient once a year obligatory needs to visit his general practitioners. General practitioners should follow registered patients in their practices who do not use cancer screening programs. Health improvement campaigns activity needs to be long-term. In our study, correlation was found between the number of family doctor's visit per year and respondents' knowledge about screening programs ($p = 0.015$; $r = 0.24$), respectively, the more visits patients make to their general practitioner, the bigger possibility is that there would be a conversation about screening including more information about it.

The suggestions to improve screening tests rate are: more informational campaigns, should be popularised that every patient obligatorily once per year has to visit their general practitioners, need to develop guidelines for each cancer screening program; general practitioners should follow patients who do not use cancer screenings and then motivate them to do it; cancer screening programs need to be obligatory rather than an optional procedure.

6. Conclusions

Despite the increased number of health improvement campaigns, lack of knowledge about screening programs still exists. The results show that half of respondents still do not use screening. On average, the main reasons why patients do not use cancer screening, are lack of informative material and fear of diagnosed oncology.

References

[1] SPKC. 2017. "Veselības Aprūpes Statistikas Dati." [viewed 17.04.2017]. Accessed: https://www.spkc.gov.lv/lv/statistika-un-petijumi/statistika/veselibas-aprupes-statistika1/.

[2] VMNVD. 2017. "Vēža Savlaicīgas Atklāšanas Programma." [viewed 17.04.2017]. Accessed: http://www.vmnvd.gov.lv/lv/veselibas-aprupes-pakalpojumi/veza-savlaicigas-atklasanas-programma.

[3] Timmer, T. C. *An Introduction to Epidemiology.* 3rd edition. Jones and Bartlett Publishers, Inc., 19-21.

[4] *DeVita Hellman, and Rosenberg Cancer: Principles & Practice of Oncology.* 10th edition. United States of America: Wolters Kluwer Health, 370.

[5] Ramos, M., Llagostera, M., Esteva, M., Cabeza, E., Cantero, X., Segarra, M., Martin-Rabadan, M., Artigues, G., Torrent, M., Taltavull, J. M., Vanrell, J. M., Marzo, M., and Llobera, J. 2011. "Knowledge and Attitudes of Primary Healthcare Patients regarding Population-Based Screening for Colorectal Cancer. *BMC Cancer* 11 (1): 408. [viewed 17.04.2017] Accessed: https://bmccancer.biomedcentral.com/articles/10.1186/1471-2407-11-408.

[6] Mims, A. D., Zetzsche, J., and Leatherwood, K. A. 2005. "Mammography Screening: Addressing Myths and Other Reasons for Noncompliance." *The Permanente Journal* 9 (1): 52-4. [viewed 17.04.2017]. Accessed: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3108414/.

[7] HO. 2015. "Reasons for Not Attending Cervical Screening." [viewed 17.04.2017]. Accessed: http://www.healthtalk.org/peoples-experiences/cancer/cervical-screening/reasons-not-attending.

[8] Simon, C., Everitt, H., Birtwistle, J., and Stevenson, B. 2002. *Oxford Handbook of General Practice.* New York: Oxford University Press, 566.