Breast Cancer Detection: Role of Family Physicians

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ABSTRACT

Croatia started implementing the national programs for early breast cancer detection in 2006, early detection of colon cancer and early detection of cervical cancer. A possible way to improve the adherence of the women to the screening on breast cancer could be by transferring the responsibility for the program implementation from the public health institutes to family physicians. The Project: »Model of early cancer detection integrated in a practice of family physician«, was carried out by the Department of Family Medicine of the Osijek University School of Medicine. The results have shown that responsiveness of women invited to do preventive mammography was significantly higher in the experimental than in the control group. The central role of FM in the implementation of preventive programmes has already been recognized in many countries as an advantage from the organizational aspects and by means of decreased expenditure, compared to the vertical programmes with strict formal control centered to the public institutions.

Key words: breast cancer, detection, intervention program, family medicine, Croatia

Position of Family Practitioners in the Health Care System and Possibilities of Prevention

Prevention is an integral part of family medicine (FM). The European Definition of General Practice/Family Medicine from 2002, drawn up by the European Academy of Teachers in General Practice - EURACT, describes the tasks of family physicians (FP). As a rule, a FP is usually the first medical point of contact for each individual regardless of age, gender or medical problem. FP ensures an efficient use of the health care system through guiding the patients, advocating their interest and working with colleagues in other health care fields¹. FP is the first medical point of contact for most of the population, a gate-keeper into the health care system, privileged to implement prevention activities. Through long-term contact with the population, a practitioner has the possibility to learn more about the medical needs of the population he cares for. Most people registered on a FP's list visit their practitioners at least once in three years, while 70% of the population does so every year. Besides, long-term work with the same population provides insight into the results and benefits of the prevention activities in the population he cares for. Many contacts between a FP and a patient provide the possibility of primary prevention such as giving advice, educating on healthy lifestyles or vaccination¹⁻⁴.

Team work is one of the most important determinants in the organization of a FP's work, especially in implementing of prevention activities. Prevention activities fall within the work domain of the clinic nurse and especially the public health nurse (PHN). Various measures related to advice on healthy life style, on breaking of harmful habits and on detection of risk factors are in fact inherent with the tasks being performed by nurses in FPs' teams on a daily basis. Moreover, a PHN has the obligation of calling or visiting the patients who don't come to the clinic, thus her position in the primary

health care system makes her the closest to the population. Team work in the implementation of prevention activities requires forming and using of a written protocol on prevention activities, available to all members of the team, as well as holding of regular team meetings dedicated to organization, implementation and evaluation of prevention programs in the field^{3,4}.

Prevention Measures in Croatia

In many countries research has shown prevention activities to be insufficiently included in the work of FPs. Likewise, in the work of FPs in Croatia, prevention activities are also included to a small extent^{5,6}. The successfulness of opportunistic screening for high blood pressure and Pap test has been proven. Great drawback of opportunistic screening is that it does not achieve the necessary scope, because the selection is made among those who report to the clinic, so for a part of patients there is s danger of not being included in the prevention program. However, a well designed computer program may keep regular track of prevention activities and single out those not included in the screening that need to be invited⁷.

At the national level, there are prevention programs which are planned or implemented with the help of family practitioners, such as the National Program for Prevention and Early Detection of Cancer or the National Program for Prevention of Cardiovascular Diseases^{8,9}.

For some cancer sites, incidence and mortality may be reduced through secondary prevention, i.e. early detection. The number of new cancer cases and cancer-related deaths in Croatia is on a constant rise. In 2008 there were 20,000 patients and over 13,000 deaths. It should be noted that in overall cancer incidence and mortality, Croatia is in the lower third of European countries when it comes to success in the prevention and treatment of cancer¹⁰.

Republic of Croatia is a country where national programs for some of the most common cancer sites have been successfully prepared and launched¹¹⁻¹⁴. Cancer sites appropriate for national programs are those easily prevented by primary prevention, detectible in early stages where efficient, specific and sufficiently sensitive methods for early cancer detection are available. Such sites are: breast cancer, colon cancer, cervical cancer or skin cancer. Croatia started implementing the national programs for early breast cancer detection in 2006 by diagnostic procedure - mammography, early detection of colon cancer and early detection of cervical cancer 12-14. The aims of breast cancer prevention are: to reduce breast cancer mortality by 25% within five years of the program implementation; higher percentage of breast cancer detection in its initial stages and to reduce treatment costs for advanced stages of the disease. The program is aimed to all women aged 50-69 are to undergo mammography screening every other year¹².

County Institute of Public Health carries out the technical preparation, invites the patients to mammography screening, providing them with additional educational material and sets to patients' home addresses. Upon the conducted testing at mammography units with licensed equipment and experts who analyze the findings, the findings are returned to the Institute of Public Health. According to that particular principle, the FP is almost completely left out of the system of prevention and early detection.

In the first cycle, response rate to mammography screening for entire Croatia was 63%, with regional differences. The highest response rate was in Bjelovarsko--bilogorska and Medimurska Counties (88 and 86%), and the lowest in Splitsko-dalmatinska and Zagrebačka (50 and 51%) (67) Counties¹⁵. According to the research results by Kolačko and Stipešević-Rakamarić, fear from the diagnoses, needs for a long travelling and luck of financial resources were the main reasons not to respond to mammography screening. The women's also mentioned that only 12% of FDs and only 2% public health nurses asked them if they respond to the invitations¹⁶. Similar results were obtained in the research done by Stamenić i Strnad. Furthermore, they found that the respond rates were smaller in rural than in urban areas¹⁷. In 2009, in Osiječko-baranjska County, 19,853 women were invited to preventive mammography screening. The response rate of 63.6% does not significantly deviate from the average response rate in Croatia (61.2%) for the vear 2009¹⁸.

A Role of Family Medicine and Family Doctors Teams in the Mammography Screening

A possible way to improve the adherence of the women to the screening on breast cancer could be by transferring the responsibility for the program implementation from the public health institutes to family physicians. FPs are in a position to cooperate with the population which enables them to implement many preventive measures in a planned and systematic manner, such as: health education activities, counseling, recognizing the early symptoms and signs of a disease and performing screening tests in high risk groups^{6,19,20}.

Considering these facts, the Project: »Model of early cancer detection integrated in a practice of family physician«, was carried out by the Department of Family Medicine of the Osijek University, School of Medicine, The main purpose of the Project was to promote the pro-active or patient-oriented approach to the early cancer detection. The main aim of the Project was to study and test the possibility for the FM teams to use various work methods and interventions within their practice in order to motivate the population to take part in National preventive programs²¹. Twenty FM teams were selected, half of them were appointed as the control group and half as the experimental group. In both groups, half of the offices were located in rural and half in urban surroundings. The interventional measures were divided into four phases. First, a nurse did an introductory private conversation with the participant handling out the promotional

materials. Those women, who failed to adhere at this first phase, were referred to pass to the next phase. The next phase consisted of a private discussion between the family physician and the patient, lasting for quarter of an hour. After that, the physician met the participant's family and discussed with them for 20 minutes. The final phase was 45-minute lecture given by the physicians and the field nurses, to the groups of 20 to 25 women. For those FP's who gave their consent to participate in the Project, educational sessions have been prepared. A special course was organized to improve their clinical skills, such as: Hemoccult test, digitorectal and clinical breast examination; but also communication skills, such as motivational interviewing 21,22.

The search results have shown that responsiveness of women invited to do preventive mammography was significantly higher in the experimental than in the control group. In the experimental group the response rate was 81.0% (821 of 1014) and in the control group 63% (634 of 997) of invited women. A high degree of compliance, achieved, regardless of the patients age, clearly suggests that FPs are able to offer specific breast prevention programs, which will significantly improve motivation and response among patients to implement the prevention programs. The results also indicate that it is possible to integrate cancer prevention programs in the day-to-day practice of an FPs²³.

The central role of FM in the implementation of preventive programmes has already been recognized as an advantage from the organizational aspects and by means of decreased expenditure, compared to the programmes with strict formal control centered to the public Institutions²⁴⁻²⁷. In some European countries, e.g. Great Britain, family physicians partially participate in the national programme implementation by means of conducting the screening tests, performing health awareness actions and ensuring adequate diagnostic and therapeutic procedures for patients with positive results of screening tests to be done. Health care authorities in collaboration with professional associations developed quality indicators for the programme implementation surveillance. These indicators serve as the basis for the payment and are included in the additional Contract concluded between the doctors and the National Health Insurance²⁶. The pivotal role of primary care physicians, including the FPs have been recognized in many western countries especially in underserved area^{28–30}.

Independently of the type of involvement, complete responsibility to carry on the preventive programs or partially participation in national programmes, it is well documented that FPs gives a great input on the preventive program seccess^{19,30–33}. Usually they are big motivators for patients to attend the preventive screenings³⁴. Of course, the differences among FP were found too, including their personal attitudes but also the self-confidence and the context of their practices, including the financial incisiveness. It is also documented that the success is higher^{32,35–37}.

A role of FP in the provision of mammography screening could be even more important in the future if we take in account a rising dilemmas^{38,39}. The increased number of countries with a long tradition is actually questioning the effectiveness of the program. There are two serious reasons to question the use of mammography screening to all women aged 50-69 years. The first is effectiveness of mammography as screening method and second is the possibilities of overdiagnosis and overtreatmnent, coming from the organized national programs^{40,41}. Because of these reasons, US Preventive Task Force specially noticed at their web-pages that the recommendations for mammography screening to all women aged 50-74 are currently under revision⁴². It seams that, until better method of screening is found, the decisions about breast cancer screening should be dependent on the individual country circumstances and oriented to the patients under the risks⁴².

Conclusions

Accumulated evidence of the important role of FP in mammography screening might be helpful for stakeholders and decision makers in Croatia to take into the serious consideration possibilities of active involvement of FP into the national breast cancer screening programme, especially for the highly risks patients.

REFERENCES

1. ALLEN J, GAY B, CREBOLDER H, HEYRMAN J, SVAB I, RAM P. The European definition of General Practice/Family medicine, Wonca Europe, 2002. — 2. KATIĆ M. JUREŠA V. OREŠKOVIĆ S. Croat Med J. 45 (2004) 543. — 3. WHO REGIONAL OFFICE FOR EUROPE. Prevention in primary care, Recommendation for promoting good practice, CINDI 2000 (WHO Regional Office for Europe. Copenhagen, 2000). — 4. KATIĆ M, PAVLOVIĆ J, JURKOVIĆ LJ, VINTER-REPALUST N, LEMAIĆ Z, BUDAK A, Liječ Vjesn, 122 (2000) 56. — 5. PRISTAŠ I, ERCEG M, STE-VANOVIĆ R, RODIN U, Croatian Journal of Public Health, 4 (2008) 16, accessed 7.4. 2013. Available from: URL: http://www.hcjz.hr/old/clanak. php?id=13892. — 6. STANIĆ A, SVIBEN D, STEVANOVIĆ R, PRISTAŠ I, IVIČEVIĆ A, MIHEL S, KRČMAR N, JOVANOVIĆ A, NOT T, BEŠIĆ V, Preventivni pregledi osiguranih osoba starijih od 45 godina u 2004. godini. In: Proceedings (Zbornik V kongres HDOD-HLZ. Rovinj, 2005). 6. KATIĆ M, PETRIC D, JUREŠA V, MAZZI B, BAKAR Ž, STEVANOVIĆ R, SOLDO D, KATIĆ V, Zašto i kako promijeniti sustav plaćanja službe obiteljske medicine. In: Proceedings (Zbornik Četvrti Kongres Hrvatskog društva obiteljskih doktora, Hrvatskog liječničkog zbora, Rovinj 2004). -7. KATIĆ M. SOLDO D. OŽVAČIĆ Z. BLAŽEKOVIĆ S. VRCIĆ KEGLE-VIĆ M, BERGMAN MARKOVIĆ B, TILJAK H, LAZIĆ D, CEROVEČKI NEKIĆ V, PETRIČEK G, Informational Systems and Electronic Health Record in Primary Health Care. IN: BRYDEN JS, LUSIGNAN S, BLO-BEL B, PETROVEČKI M, (Eds), Proceedings of the European Federation for Medical Informatics, Special Topic Conference, Brijuni 2007 (Akademische Verlagegesellscaft AKA, Berlin, 2007). — 8. ŠAMIJA M, STRNAD M, EBLING Z (Eds), Kako spriječiti i rano otkriti rak? Draft National Program (Medicinska naklada, Zagreb 2007). — 9. ŠAMIJA, M, STRNAD M, EBLING Z, KOVAČIĆ L, ZNAOR A, Prijedlog Nacionalnog Programa prevencije i ranog otkrivanja raka u Hrvatskoj (Hrvatsko onkološko društvo, Ministarstvo zdravstva i socijalne skrbi, Hrvatski zavod za javno zdravstvo, Hrvatski zavod za zdravstveno osiguranje, Zagreb, 2006). 10. HRVATSKI ZAVOD ZA JAVNO ZDRAVSTVO, Hrvatski zdravstveno-

-statistički ljetopis za 2007. godinu (Hrvatski zavod za javno zdravstvo, Zagreb, 2008). — 11. KATIĆ M, MAZZI B, PETRIC D, Uloga liječnika obiteljske medicine u provedbi nacionalnog programa prevencije i ranog otkrivanja raka, In: ŠAMIJA M. STRNAD M. EBLING Z (Eds), Kako spriječiti i rano otkriti rak? Draft National Program (Medicinska naklada, Zagreb 2007). — 12. HRVATSKI ZAVOD ZA JAVNO ZDRAVSTVO, Nacionalni program ranog otkrivanja raka dojke, accessed: 7.4.2014. Available from: URL: http://hzjz.hr/sluzbe/sluzba-za-epidemiologiju/ odjel-za-prevenciju-nezaraznih-bolesti/odsjek-za-nacionalne-programeprevencije/. — 13. HRVATSKI ZAVOD ZA JAVNO ZDRAVSTVO, Nacionalni program ranog otkrivanja raka debelog crijeva, accessed: 7.4.2014. Available from:URL http://hzjz.hr/sluzbe/sluzba-za-epidemiologiju/odjelza-prevenciju-nezaraznih-bolesti/odsjek-za-nacionalne-programe-preven 14. HRVATSKI ZAVOD ZA JAVNO ZDRAVSTVO, Nacionalni program ranog otkrivanja raka vrata maternice, accessed: 7.4.2014. Available from: URL: http://hzjz.hr/sluzbe/sluzba-za-epidemiologiju/ odjel-za-prevenciju-nezaraznih-bolesti/odsjek-za-nacionalne-programeprevencije/. - 15. Hrvatski zavod za javno zdravstvo, Služba za epidemiologiju kroničnih masovnih bolesti, Nacionalni program ranog otkrivanja raka dojke. »Mamma«, Available from: URL: www.hzjz.hr. — 16. KOLAČKO A, STIPEŠEVIĆ-RAKAMARIĆ I, Razlozi neodazivanja žena na Nacionalni program ranog otkrivanja raka dojke na području Lepoglave, Hrvatski časopis za javno zdravstvo, 9 (2013) 181. -MENĆ V, STRNAD M, Urban-rural diferences in a population-based breast cancer screening program in Croatia, Croat Med J, 52 (2011) 76. 18. HRVATSKI ZAVOD ZA JAVNO ZDRAVSTVO, Služba za epidemiologiju kroničnih masovnih bolesti, 2009, Nacionalni program ranog otkrivanja raka dojke. »Mamma«. Available from: URL: www.hzjz.hr. 19. LABEIT A, PEINEMANN F, BAKER R, BMJ Open, 3 (2013) e003387. DOI: 10.1136/bmjopen-2013-003387. — 20. SHMUEL G, KAHAN E, Family Practice, 17 (2000) 42. — 21. MAJNARIĆ TRTICA LJ, STRNAD M, GMAJNIĆ R, EBLING B, EBLING Z, MARKOVIĆ I, ET AL, Coll Antropol, 32 (2008) 709. — 22. EBLING Z, GMAJNIĆ R, PRLIĆ L, SAMAR-DŽIĆ S, KRALJIK N, EBLING B, SANTO T, GLAVINA K, KOVAČIĆ L, PRIBIC S, Towards Cancer Prevention in Croatia - Program of the City of Osijek League against Cancer. In: Proceedings (UICC World Cancer Congress, Washington, 2006). — 23. S PRIBIĆ, R GMAJNIĆ, LJ MAJNA-RIĆ-TRTICA, B EBLING, Ž VRANJEŠ, Coll Antropol, 34 (2010) 871. -24. SUMMERTON N, Br J Gen Pract, 52 (2002) 5.—25. GRUNFELD E,

Br J Gen Pract, 55 (2005) 741. — 26. JEPSON R, WELLER D, ALEXAN-DER F, WALKER J, Br J Gen Pract, 55 (2005) 20. - 27. SAMAR-DŽIĆ-ILIĆ V, BAČIĆ R, VRCIĆĆ-KEGLEVIĆ M, Je li moguće izvesti program ranog otkrivanja karcinoma debelog crijeva u ordinaciji obiteliske medicine? - simulirani model. In: Proceedings (XIV. Kongres obiteljske medicine, Hrvatska Udružba obiteljske medicine, Dubrovnik, 2007). 28. PIVOT X, RIXE O, MORERE J, COSCAS Y, CALS L, NAMER M, SE-RIN D, DOLBEAULT S, EISINGER F, ROUSSEL C, BLAY J, Int J Med Sci, 5 (2008) 106. — 29. JENSEN H, TØRRING ML, LARSEN MB, VEDSTED P, Clin Epidemiol, 6 (2014) 237. DOI: 10.2147/CLEP.S62855. eCollection 2014. — 30. EMERY JD, WALTER FM, GRAY V, SINCLAIR C, HOWTING D, BULSARA M, BULSARA C, WEBSTER A, AURET K, SAUNDERS C, NOWAK A, HOLMAN D, Fam Pract, 30 (2013) 541. DOI: 10.1093/fampra/cmt016. — 31. FLEMING P, O'NEILL S, OWENS M, MOONEY T, FITZPATRICK P, J Public Health Res, 2 (2013) e14. DOI: 10.4081/jphr.2013.e14. — 32. FRANÇOIS G, VAN ROOSBROECK S, HOECK S, MARKOVSKAIA E, VAN HAL G, Rev Epidemiol Sante Publique, 60 (2012) 150. DOI: 10.1016/j.respe.2011.09.008. — 33. POOLE B, BLACK C, GELMON K, KAN L, Can Fam Physician, 56 (2010) e150. — 34. O'CONNOR M, MURPHY J, MARTIN C, O'LEARY J, SHARP L, THE IRISH CERVICAL SCREENING CONSORTIUM (CER-VIVA), Family Practice, 31 (2014) 475. DOI: 10.1093/fampra/cmu029. 35. JENSEN LF, MUKAI TO, ANDERSEN B, VEDSTED P, BMC Cancer, 18 (2012) 254. DOI: 10.1186/1471-2407-12-254. — 36. LIONIS C, PETE-LOS E, Family Practice, 28 (2011) 589. DOI: 10.1093/fampra/cmr110. -37. KACZOROWSKI J, HEARPS SJC, LOHFELD L, GOEREE R, DON-ALD F, BURGESS K, SEBALDT RJ, Can Fam Physician, 59 (2013) e282. - 38. MILER AB, WALL C, BAINES CJ, SUN P, TO T, NAROD SA, BMJ, 348 (2014) 366. DOI: http://dx.doi.org/10.1136/bmj.g366. — 39. LUND E, MODE N, WAASETH M, THALABARD JC, BMC Cancer, 13 (2013) 614. DOI: 10.1186/1471-2407-13-614. — 40. MAYOR S, BMJ, 345 (2012) 4847. DOI: http://dx.doi.org/10.1136/bmj.e4847. — 41. JORGENSEN KJ, ZAHL PH, GOTZSCHE PC, BMJ, 340 (2010) 1241. DOI: http://dx.doi.org/ 10.1136/bmj.c124119.10. — 42. U.S. PREVENTIVE SERVICES TASK FORCE, Recommendations, accessed 3.4.2014. Available from: URL: http://www.uspreventiveservicestaskforce.org/recommendations.htm. 43. PACE LE, KEATING NL, JAMA, 311 (2014) 13. DOI: 10.1001/jama. 2014.1398.

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RANO OTKRIVANJE KARCINOMA DOJKE: ULOGA LIJEČNIKA OBITELJSKE MEDICINE

SAŽETAK

U Hrvatskoj je 2006. godine započelo provođenje nacionalnog programa za rano otkrivanje raka dojke, debelog crijeva te grlića maternice. Jedna od mogućnosti povećanja odaziva žena na preventivni pregled za rano otkrivanje karcinoma dojke moglo bi biti prenošenje odgovornosti za provođenje programa sa županijskih zavoda za javno zdravstvo na liječnike obiteljske medicine. Katedra za obiteljsku medicine Medicinskog fakulteta Osijek provela je projekt »Model ranog otkrivanja raka integriran u praksu obiteljske medicine«. Rezultati su pokazali kako je odaziv žena na preventivnu mamografiju bio značajno viši u eksperimentalnoj grupi nego u kontrolnoj. Ključna uloga obiteljskog liječnika u provedbi preventivnih programa već je prepoznata u mnogim zemljama kao prednost sa strane organizacijskih aspekata te smanjenja troškova u usporedbi s vertikalnim programima koji imaju strogu formalnu kontrolu unutar javnih institucija.