

---

## ADDITIONAL AND REPEATED INVITATIONS IN THE NATIONAL BREAST CANCER SCREENING PROGRAM

**Marija Topić<sup>1\*</sup>, Jasmina Kovačević<sup>2</sup>, Monika Puljašević<sup>2</sup>, Josipa Piškulić<sup>1</sup>, Nikola Gotovac<sup>1</sup>,  
Andrea Šimić Klarić<sup>1</sup>**

<sup>1</sup>County General Hospital Požega, Osječka 107, Požega, Croatia

<sup>2</sup>Public Health Institute of Požega-Slavonia County, Županijska 9, Požega, Croatia

### Abstract

**Introduction:** The National Breast Cancer Screening Program (NBCSP) in the Croatia was adopted in 2006. The target group are women 50-69 years of age who are invited to mammography. To reduce breast cancer mortality response rate of at least 70% is needed. This response rate is still not achieved nationally.

**Aim:** The aim of this study was to analyse the impact of additional and repeated calls on the response rate of women to mammograms and breast cancer screening in Požega-Slavonia County (PSC) as part of the fifth cycle of NBCSP. Also to show the impact on the response rate of repeated mailed invitation and additional phone calls and to determine the contribution of first, repeated, or additional mammography invitations to breast cancer detection.

**Materials and Methods:** Subjects of present study were all women involved in fifth round of NBCSP invitations (2017-2019). The hospital information system and the NBCSP database were used as data sources.

**Results** of the study showed that repeated calls by mail increased women's response rate by 14.5% in PSC. Additional calls to non-respondent women, available for intervention, increased women's response rate by 36.7%. Among women who were newly diagnosed with breast cancer during the fifth round, most women responded to the first invitation in NBCSP (70.3%), followed by the women who did not respond (16.2%) who were also the oldest. A smaller percentage of women were referred to screening by their physician (8.1%), and 5.4% of women performed mammography after repeated invitation.

**Conclusion:** The implementation of NBCSP is of great importance because three out of four newly diagnosed women with breast cancer were diagnosed within the NBCSP at the first or repeated invitation.

**Keywords:** National Program, breast cancer, additional invitation, repeated invitation

## MIŠLJENJA MEDICINSKIH SESTARA I TEHNIČARA O SESTRINSKOJ DOKUMENTACIJI U ELEKTRONSKOM OBLIKU

**Irena Kukić Vukoja<sup>1</sup>, Štefica Mikšić<sup>2</sup>, Đimoti Renata<sup>1</sup>, Marija Karlić<sup>1</sup>**

<sup>1</sup>Opća županijska bolnica Požega, Osječka 107, Požega, Hrvatska

<sup>2</sup>Fakultet za dentalnu medicinu i zdravstvo, Crkvena 21, Osijek, Hrvatska

irenakuk@yahoo.com

### Sažetak

**Uvod:** Sestrinska dokumentacija u elektronskom obliku sastavni je dio medicinske dokumentacije i za medicinske sestre i tehničare je zakonska obaveza. Cilj sestrinske dokumentacije jest sustavno praćenje, planiranje, provođenje, kontrola postignutog, vrednovanje stanja pacijenta, a ne samo provjera učinjenog.

**Cilj:** Ispitati razinu informatičkog obrazovanja medicinskih sestara i tehničara na osnovi samoprocjene znanja i vještina, usporediti mišljenja s obzirom na dob i razinu obrazovanja, te ispitati postoje li razlike u mišljenjima medicinskih sestara i tehničara s obzirom na samoprocjenjenu razinu informatičkih znanja i vještina.

---

**Metode:** Istraživanje je provedeno 2019. godine između medicinskih sestara i tehničara zaposlenih u Općoj Županijskoj bolnici Požega. Za prikupljanje podataka korišten je anonimni upitnik „*Implementacija sestrinske dokumentacije u informacijski zdravstveni sustav*“ - upitnik ISDIZS. Provedena je presječna studija.

**Rezultati:** U istraživanju je sudjelovalo ukupno 111 ispitanika, od kojih je 15 (13 %) medicinskih tehničara i 96 (87 %) medicinskih sestara, s ukupnim prosjekom od 44 godina. 49 (44 %) ispitanika posjeduje temeljna znanja i vještine za rukovanje informacijskim sustavom. Ispitanici sa srednjom stručnom spremom smatraju kako elektroničko vođenje sestrinske dokumentacije nije jednostavno ( $p = 0,02$ ) te da usporava medicinsku sestruru/tehničara u procesu rada ( $p = 0,006$ ). Visokoobrazovane medicinske sestre i tehničari mišljenja su da je sestrinska dokumentacija jednostavna i u potpunosti primjenjiva. Ispitanici koji nemaju temeljna informatička znanja i vještine u projektu imaju vrlo negativno mišljenje o sestrinskoj dokumentaciji u elektroničkom obliku (projekat 42 %).

**Zaključak:** Utvrđena je niska razina temeljnih znanja i vještina za rukovanje informacijskim sustavom. Ispitanici starije životne dobi podložniji su negativnijem mišljenju o elektronskom zapisu sestrinske dokumentacije nego ispitanici mlađe životne dobi. Visokoobrazovane medicinske sestre i tehničari prihvataju primjenu sestrinske dokumentacije u elektronskom obliku te su spremne educirati starije kolege i kolegice.

**Ključne riječi:** bolnički informacijski sustav; elektronski zapis; medicinska sestra i tehničar

## NURSES AND TECHNICIANS OPINIONS ON NURSING DOCUMENTATION IN ELECTRONIC FORM

Irena Kukić Vukoja<sup>1</sup>, Štefica Mikšić<sup>2</sup>, Đimoti Renata<sup>1</sup>, Marija Karlić<sup>1</sup>

<sup>1</sup> General County Hospital Požega, Osječka 107, Požega, Croatia

<sup>2</sup> Faculty of Dental Medicine and Health, Crkvena 21, Osijek, Croatia

irenakuk@yahoo.com

### Abstract

**Introduction:** Nursing documentation in electronic form is an integral part of medical documentation and also presents a legal obligation for nurses and technicians. The goal of nursing documentation is to systematically monitor, plan, implement, control what has been achieved, evaluate the patient's condition and not just checking what has been done.

**Objectives:** To examine the level of IT education of nurses/technicians on the basis of knowledge and skill self-assessment, to compare the opinions with regard to age and level of education, and to examine whether there are differences in the opinions of nurses/technicians with regard to the self-assessed level of IT knowledge and skills.

**Methods:** The survey was conducted between February and April 2019 in the General County Hospital of Požega among nurses and technicians employed in the hospital. The survey was carried out through an anonymous questionnaire, "Implementing Sister's Documentation into an Information Health System" - ISDIZS questionnaire. Structure of study: cross-sectional study.

**Results:** A total of 111 respondents participated in the study, 15 (13 %) medical technicians and 96(87 %) nurses with a total average age of 44 years. 49 (44 %) of the respondents have basic knowledge and skills to handle the information system. Seniors with secondary education consider that electronic nursing document management is not easy to handle ( $P = 0.02$ ) and that it slows down the nurse/technician in the process ( $P = 0.006$ ). Nurses/technicians with higher education take the view that nursing documentation is simple and fully applicable. Respondents who have low level of basic IT knowledge and skills on average have a very negative view of nursing documentation in electronic form (average of 42 %).