Dora
SLOVENIAN BREAST CANCER SCREENING PROGRAMME

Slovenian National Breast Cancer Screening program – DORA Facts & Figures

Programme type: organised population based screening programme.

Year of initiation: first invited women were screened in this programme in April 2008. Different regions in Slovenia consecutively joined the programme; all the regions of Slovenia were included by April 2018.

Programme founders: Ministry of Health of the Republic of Slovenia, Health Insurance Institute of Slovenia and Institute of Oncology Ljubljana.

Responsible institution: Institute of Oncology Ljubljana.

Screening interval: two years.

Screening examination: screening mammography in two projections.

Additional diagnostics and treatment of lesions detected during screening: additional projections (compression, enlargement), breast ultrasound, clinical examination, core biopsy, MRI, open biopsy, surgery, chemotherapy, radiotherapy and biological (targeted) therapy.

Target group of population: women aged from 50 to 69 with residence in the Republic of Slovenia with basic health insurance. Exclusion criteria for screening is the following: breast cancer, including carcinoma *in situ* (C50, D05).

Invitation method: all women from the target population group who do not meet the exclusion criteria are sent a personal invitation letter with the date, hour and place of screening examination and contact information in case they want to change the appointment. If a woman does not attend the examination, she is sent another invitation in 4 weeks time. Self-invitations are also possible, by telephone or e-mail through the programme DORA call centre.

Participation rate: participation in the DORA programme is defined as a percentage of women invited in the specific period of time that attend for screening. In order to reduce breast cancer mortality rate it is necessary to reach at least 70 % participation rate. The average participation rate in the last ten years (2008–2018) of all invited women was 73 %.

Quality assurance and control: all personnel, equipment and workflow must meet the EU requirements[1] for quality control. Monitoring of performance indicators has been enabled ever since the introduction of the programme.

Information system of the programme: a web application that follows all steps in the screening procedure was developed. It consists of several applications (central registry DORA, applications for mammography, reading, assessment, warehouse and eCRP). All data needed for constant and stable workflow and statistical analysis is collected in the central data warehouse. All screening units are using the same web application.

[1] N. Perry, M. Broeders, C. de Wolf, S. Törnberg, R. Holland, L. von Karsa and E. Puthaar (ed.): European Guidelines for Quality Assurance in Breast Cancer Screening and Diagnosis. Fourth Edition. European Commission. Luxembourg, Office for Official Publications of the European Communities, 2006

Links: Central Population registry (eCPR), Registry of spatial units of Slovenia (RSU) and Cancer Registry of the Republic of Slovenia (CRRS). Data: personal data about women from the programme target group and findings of screening and diagnostic examinations and treatment.

Programme providers: screenings are carried out in 20 screening units; on 17 stationary screening mammographs and in 3 mobile screening units.

Figure 1: Locations of the DORA programme (screening units) in Slovenia

Program goals and challenges: The future challenge of the DORA programme is to assure the participation rate of the target group above 70 %, in order to achieve the goal of the screening program: to reduce the mortality of women in target group from breast cancer for 25 % to 30 %.

PERFORMANCE INDICATORS OF DORA PROGRAMME

The DORA programme regularly monitors the quality of implementation through pre-determined indicators as stated in the European guidelines for quality assurance, published in 2004. Those guidelines state the desirable and acceptable values of performance indicators to be followed and achieved by each breast cancer screening programme.

The Epidemiology and Cancer Registry Department at the Institute of Oncology with Registry and call centre of programme DORA provides the basic statistics of the screening programme: reports (on a weekly, monthly, annual basis), basic selection of performance indicators, more detailed statistics for the internal programme quality assurance (statistics by screening centre, by radiographers, by radiologists…) and performs epidemiological studies.

In the view of the present calculations, the DORA program follows and meets the acceptable levels of performance indicators according to the EU standards (Table 1). Participation rate exceeds 70%, recall rate is 3% and the third of all invasive screened-detected cancers are smaller than 1 cm. Improvements related to cancer treatment are needed – women wait for the operation of screen-detected cancer more than two weeks.

Dora
SLOVENIAN BREAST CANCER SCREENING PROGRAMME

Table 1: Performance indicators of the DORA programme, 2008-2017

PERFORMANCE INDICATOR		Programme DORA value 2008-2017	EU acceptable value	EU desirable value
Proportion of women invited that attend for screening		**72.4 %**	**> 70%**	**> 75%**
Proportion of women recalled for further assessment	Initial screening round	4.8 %	< 7%	< 5%
	Subsequent screening round	1.8 %	< 5%	< 3%
Compliance with further assessment		99.2%	--	--
Breast cancer detection rate (per 1,000 screened women)	Initial screening round	7.8	6,8 / 1.000	> 6,8 / 1.000
	Subsequent screening round	4.7	3,4 / 1.000	> 3,4 / 1.000
Proportion of screened - detected cancers that are stage II+	Initial screening round	29.2 %	--	< 30%
	Subsequent screening round	20.4 %	25%	< 25%
Proportion of invasive screened-detected cancers that <= 10 mm in diameter	Initial screening round	35.1 %	--	>= 25%
	Subsequent screening round	36.5 %	>= 25%	>= 30%
Time (in WD) between screening mammography and result		3.8 wd	15 wd	10 wd
Time (in working days) between result of screening mammography and offered assessment		3.1 wd	5 wd	3 wd
Time (in WD) between assessment and issuing of result		5.1 wd	5 wd	5 wd
Time (in working days) between decision to operate and date offered for surgery		23 wd	15 wd	10 wd
Calculated 26.11.2018				