

PERFORMANCE OF CLINICAL AUDITS FOR MAMMOGRAPHY SCREENING - THE SLOVAKIAN EXPERIENCE

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WEBINAR 3: QUADRANT NEXT STEPS AND THE WAY FORWARD IN EUROPEAN CLINICAL AUDIT

The image features a light gray gradient background. In the top-left and bottom-right corners, there are several realistic-looking water droplets of various sizes, some overlapping. The text is centered in the middle of the frame.

**WE DO NOT HAVE ANY CONFLICT OF INTEREST TO
DISCLOSE**

INTRODUCTION

- THE AIM OF OUR CONTRIBUTION IS TO ANALYZE THE METHODOLOGY DETAILS FOR CLINICAL AUDIT REALISATION IN MAMMOGRAPHIC SCREENING UNITS.
- CLINICAL AUDIT REALISATION WAS BASED ON ADOPTED SLOVAK NATIONAL STANDARD FOR SCREENING MAMMOGRAPHY, WHICH CORRESPONDS TO THE REQUIREMENTS OF THE EU RECOMMENDATIONS AND TO THE LATEST INTERNATIONAL GUIDANCE DOCUMENTS.
- THE SLOVAK HEALTHCARE LEGISLATION MANDATES CARRYING OUT CLINICAL AUDITS AS A KEY COMPONENT OF EFFECTIVE PRACTICE FOR IMPROVEMENT OF THE QUALITY OF PATIENT CARE.
- ACCORDING TO THE REQUIRED SUSTAINABLE LEVEL OF THE HIGH QUALITY OF SCREENING MAMMOGRAPHY WORKPLACES RECOMMENDATIONS WERE MADE TO INTRODUCE A COMPREHENSIVE QUALITY ASSURANCE (QA) SCHEME INCLUDING QUALITY CONTROL OF EQUIPMENT, TRAINING AND ACCREDITATION OF PROFESSIONALS, AND EVALUATING OF SCREENING OUTCOMES.

MATERIAL AND METHODS I.

- PARTICIPATION IN THE SLOVAK SCREENING MAMMOGRAPHY NETWORK IS POSSIBLE ONLY WHEN THE MAMMOGRAPHY UNIT USE A DIGITAL DEVICE NOT OLDER THAN 8 YEARS AND PERFORMS AT LEAST 3000 EXAMINATIONS PER YEAR.
- IN AGREEMENT WITH MOST EU COUNTRIES THE REDUCTION IN BREAST CANCER MORTALITY DUE TO THE SCREENING MAMMOGRAPHY HAS BEEN CONFIRMED FOR WOMAN IN THE AGE BETWEEN **50** AND **69** YEARS.
- IN ADDITION TO THE REQUIREMENTS THAT THE WORKPLACE HAD TO MEET WHEN ENTERING THE NETWORK OF SCREENING MAMMOGRAPHY WORKPLACES, THE INDICATORS ARE EXTENDED TO CONTROL SONOGRAPHIC INSTRUMENTS AND THE IMAGING PROCESS. PREFERENCE IS ALSO GIVEN TO NEEDLE SAMPLING OF BREAST LESION USING CORE BIOPSY.
- IN THE NEAR FUTURE ALSO DIGITAL BREAST TOMOGRAPHY WILL BE A PART OF THE SCREENING MAMMOGRAPHY.

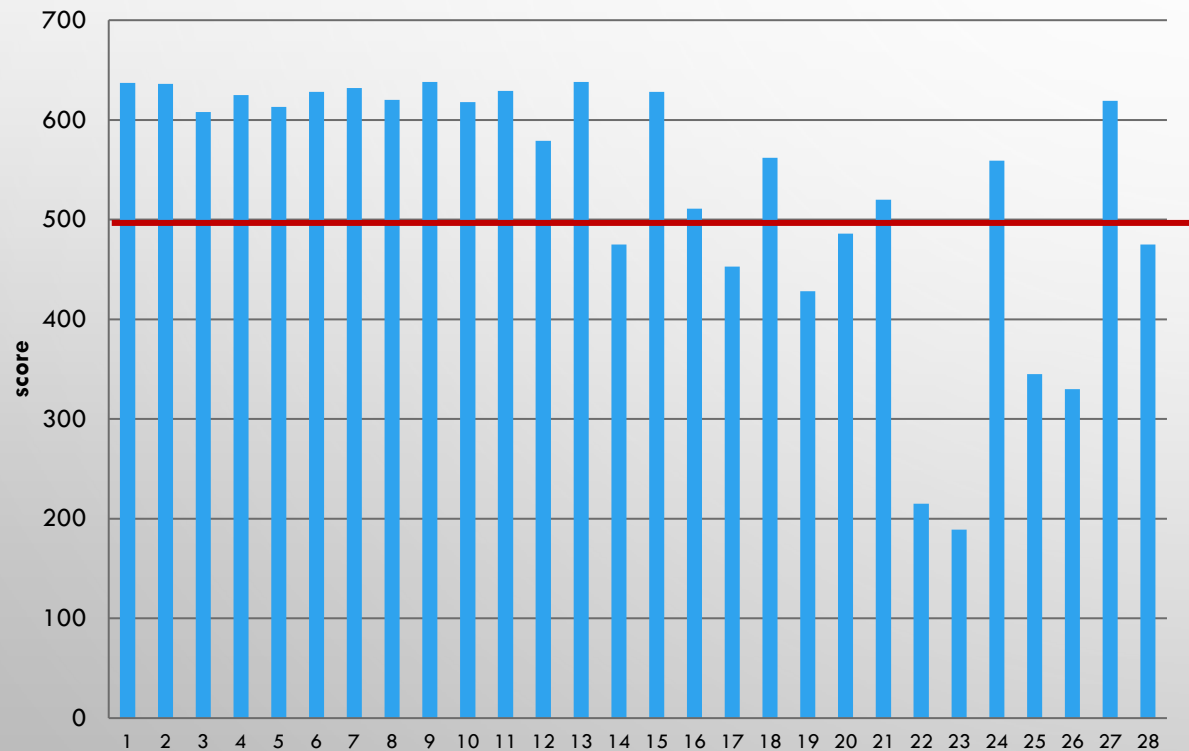
MATERIAL AND METHODS II.

- PILOT RESEARCH WAS CARRIED OUT IN THE YEARS 2018 AND 2019 AT 43 SLOVAK MAMMOGRAPHY UNITS, OF WHICH 28 WERE TESTED ACCORDING TO THE NEWLY ADOPTED SLOVAK NATIONAL STANDARD FOR SCREENING MAMMOGRAPHY.
- IN THE FRAMEWORK OF THIS PILOT STUDY, 16 MAMMOGRAPHY UNITS WERE RECOMMENDED FOR INCLUSION IN MAMMOGRAPHIC SCREENING.
- THE WORKING GROUP CONSISTED OF EXPERTS AUTHORIZED BY THE MINISTRY OF HEALTH OF THE SLOVAK REPUBLIC TO PERFORM INSPECTIONS OF MAMMOGRAPHIC WORKPLACES: A RADIOLOGIST, A RADIOLOGICAL TECHNICIAN AND AN EXPERT ON RADIATION PROTECTION.

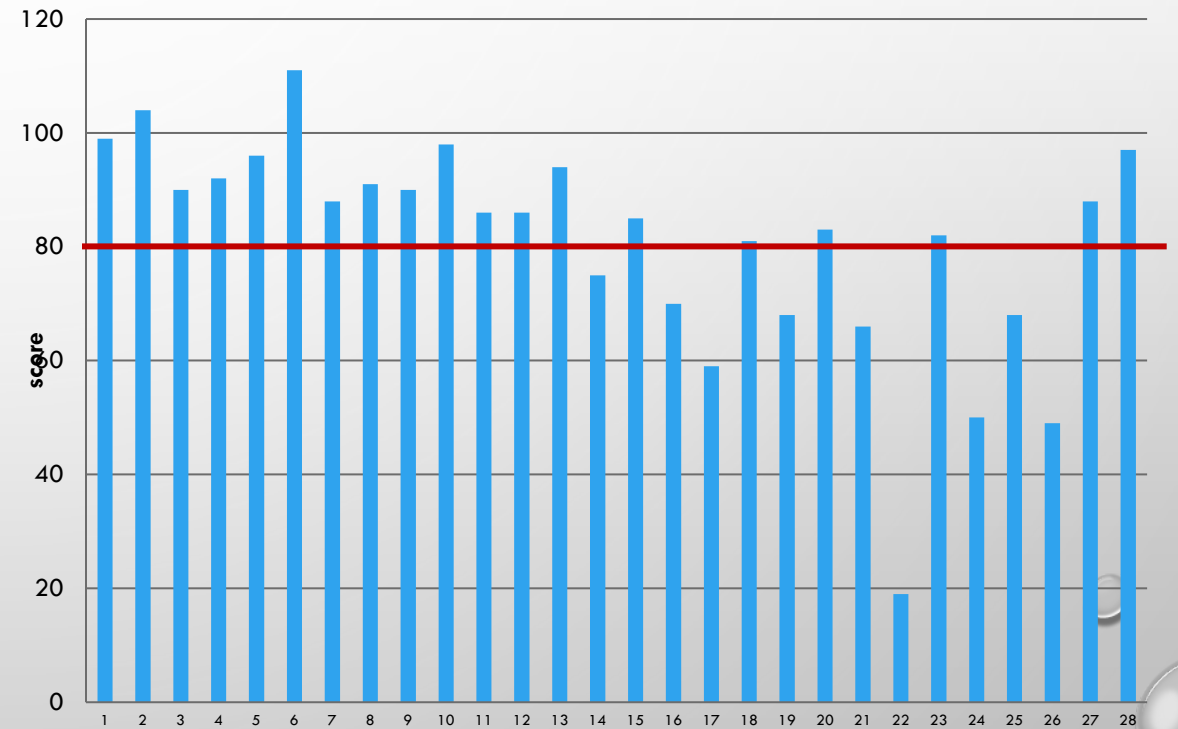
SCOPE OF THE CLINICAL AUDIT PROCESS

CRITERIA COVERS ALL COMPONENTS OF THE PATIENT CARE PATHWAY AND ARE DIVIDED INTO TWO CATEGORIES:

- **PROCESS MANAGEMENT CONTROL**, WHERE THE WORKPLACE MUST OBTAIN AT LEAST 80 POINTS OUT OF A MAX OF 125,
- **CONTROL OF PERFORMANCE INDICATORS**, WHERE THE WORKPLACE MUST OBTAIN AT LEAST 500 POINTS OUT OF A MAX OF 700.



PERFORMANCE INDICATOR CONTROL – CLINICAL REQUIREMENTS



PROCESS MANAGEMENT CONTROL – TRAINING AND DOCUMENTATION

THE BASIC INDICATORS OF PROCESS MANAGEMENT:

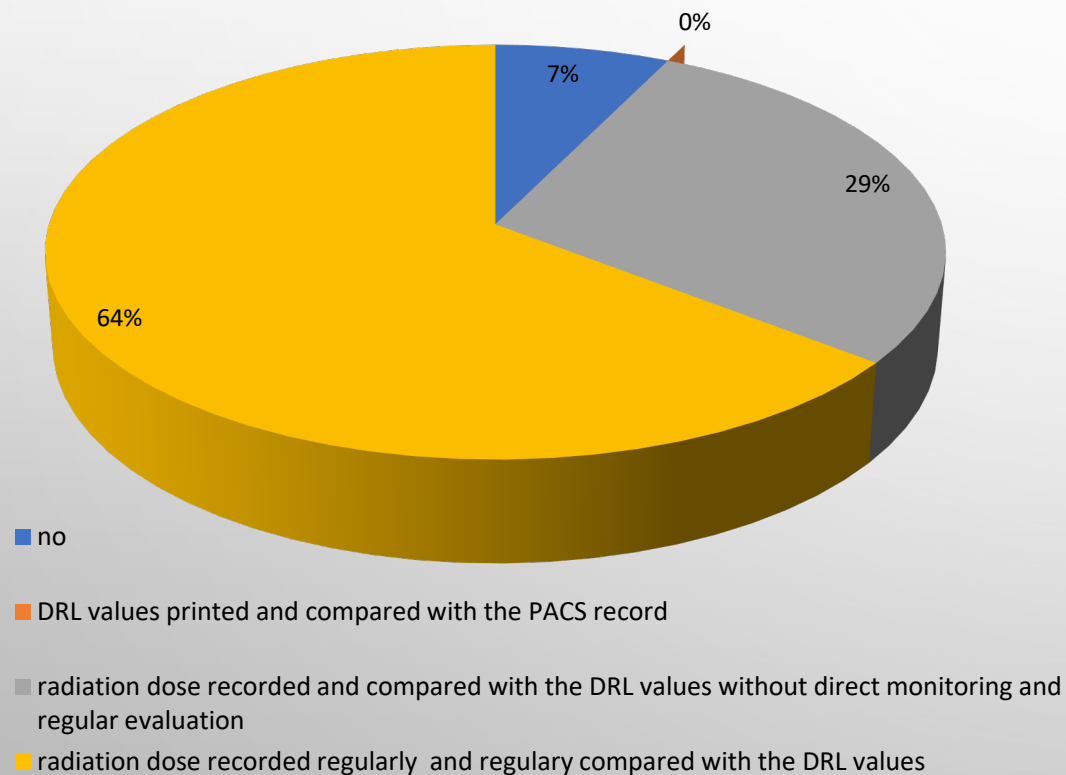
- CERTIFICATE OF PROFESSIONAL COMPETENCE OF A PROFESSIONAL REPRESENTATIVE AND HIS REGULAR RETRAINING,
- CERTIFICATE OF COMPLETION OF CERTIFICATION WORK , RADIOLOGICAL TECHNICIAN,
- REGULAR TRAINING OF HEALTH PROFESSIONALS PERFORMING MEDICAL EXPOSURE,
- PRESENCE OF A CLINICAL PHYSICIST AT THE WORKPLACE,
- ADHERENCE TO STANDARD RADIOLOGICAL PROCEDURES,
- RECORDING OF DOSES OF IONIZING RADIATION RECEIVED BY THE PATIENT AND ADHERENCE TO DIAGNOSTIC REFERENCE LEVELS THROUGH DQC (DOSE QUALITY CONTROL SYSTEM)
- RADIATION PROTECTION PROGRAM, ITS ADHERENCE AND ITS TOPICALITY,
- PARAMETERS OF THE MAMMOGRAPHY DEVICE (TYPE TECHNICAL DOCUMENTATION, YEAR OF MANUFACTURE, ACCEPTANCE TEST, EVALUATION OF CONTRAST RESOLUTION),
- REGULARITY OF LONG-TERM STABILITY TESTS FOR THE LAST TWO YEARS, IDENTIFIED DEFICIENCIES AND THEIR ELIMINATION),
- ANALYSIS OF REPEATED EXPOSURES (RECORDING, CAUSE),
- IMPLEMENTATION OF OPERATIONAL STABILITY TESTS (FREQUENCY, PERFORMANCE INDICATORS.

CONTROL OF PERFORMANCE INDICATORS INCLUDES:

- THE METHOD OF PROCESSING AND RECORDING STATISTICAL DATA ON EXAMINATIONS IN PREVENTIVE AND DIAGNOSTIC MAMMOGRAPHY,
- THE CONNECTION OF THE MAMMOGRAPHIC WORKPLACE TO THE OTHER DEPARTMENTS (SURGICAL, GYNECOLOGICAL, ONCOLOGICAL) ENSURING THE FOLLOW-UP OF THE PATIENT'S SUBSEQUENT MANAGEMENT,
- FOLLOW-UP OF THE MAMMOGRAPHY WORKPLACE TO THE BREAST COMMISSION AND THE PATIENT'S CONCILIAR FOLLOW-UP (WORKPLACE AND COMPLETENESS),
- COMPLIANCE WITH THE COMPREHENSIVE TIME SOLUTION OF THE PATIENT WITHIN 15 DAYS,
- IMPLEMENTATION OF DOUBLE READING DOCUMENTED BY THE SIGNATURES OF BOTH DOCTORS.

RESULTS I.

- 64 % OF AUDITED MAMMO UNITS USE FOR DRL EVALUATION THE DQC TRACKING SYSTEM



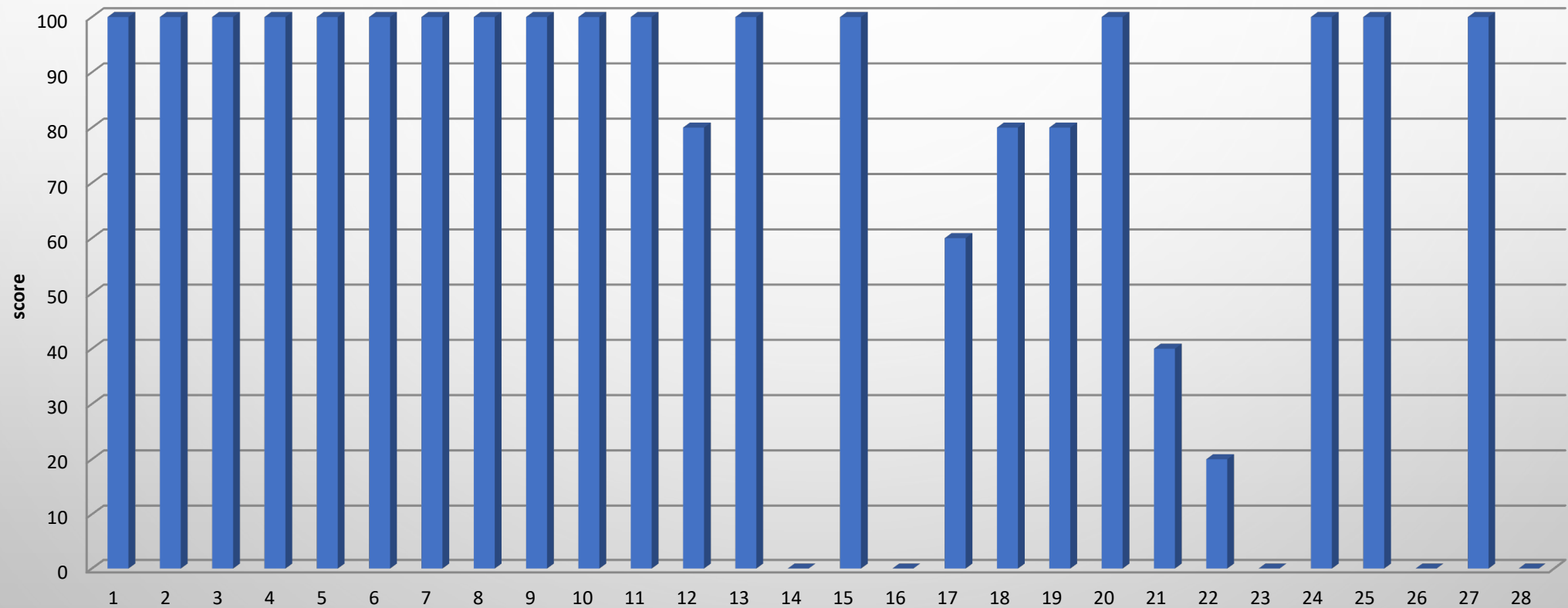
DOSE REFERENCE LEVEL OBSERVATION

	Date, time	Device	Type	Body part	Projection	Dose	E [mSv]	Local / National DRL (DDRL)	
✖	19.01.2017 11:41:00	0008m13	⏏	BREAST	MLO	3,437 mGy	-	2.7/3	National DRL exceeded! 114% of national DDRL
✖	19.01.2017 11:41:00	0008m13	⏏	BREAST	MLO	3,716 mGy	-	4/4.5	OK 92% of local DRL
✖	19.01.2017 11:41:00	0008m13	⏏	BREAST	CC	3,185 mGy	-	2.7/3	National DRL exceeded! 106% of national DDRL
✖	19.01.2017 11:41:00	0008m13	⏏	BREAST	CC	2,987 mGy	-	4/4.5	OK 74% of local DRL
✖	19.01.2017 11:40:55	0030m01	⏏	BREAST	MLO	1,207 mGy	0,072	4.5/4.5	OK 26% of local DRL
✖	19.01.2017 11:40:55	0002m01	⏏	BREAST	CC	1,180 mGy	0,071	5.1/6.5	OK 23% of local DRL
✖	19.01.2017 11:40:29	0027m02	⏏	BREAST	MLO	1,017 mGy	0,061	1.5/1.5	OK 62% of local DRL
✖	19.01.2017 11:40:26	0001m01	⏏	BREAST	CC	1,190 mGy	0,071	1.3/2	OK 91% of local DRL
✖	19.01.2017 11:40:15	0002m22	⏏	BREAST	MLO	1,400 mGy	0,084	2.0/2.5	OK 70% of local DRL
✖	19.01.2017 11:40:12	0030m01	⏏	BREAST	CC	1,033 mGy	0,062	4.5/4.5	OK 22% of local DRL
✖	19.01.2017 11:40:10	0002m23	⏏	BREAST	MLO	1,310 mGy	0,079	3.6/4.5	OK 36% of local DRL
✖	19.01.2017 11:40:06	0045m23	⏏	BREAST	MLO	1,730 mGy	0,104	6.5/6.5	OK 26% of local DRL
✖	19.01.2017 11:39:54	0002m01	⏏	BREAST	CC	1,210 mGy	0,073	5.1/6.5	OK 23% of local DRL
✖	19.01.2017 11:39:43	0041m18	⏏	BREAST	MLO	1,157 mGy	0,069	4.5/4.5	OK 25% of local DRL
✖	19.01.2017 11:39:39	0017m12	⏏	BREAST	MLO	1,890 mGy	0,113	2.5/2.5	OK 75% of local DRL
✖	19.01.2017 11:39:38	0030m01	⏏	BREAST	CC	1,030 mGy	0,062	4.5/4.5	OK 22% of local DRL
✖	19.01.2017 11:39:38	0002m22	⏏	BREAST	CC	1,050 mGy	0,063	1.6/2	OK 65% of local DRL

EXAMPLE OF DQC RECORD

RESULTS II.

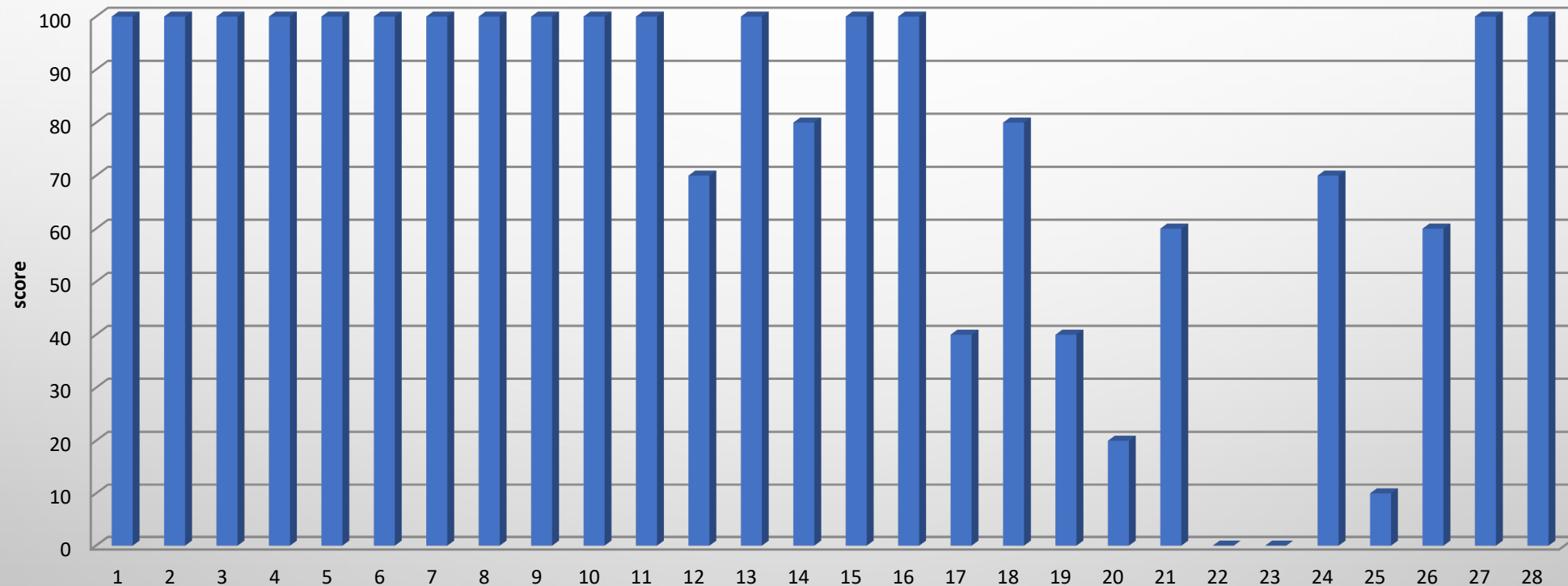
IMPLEMENTATION OF DOUBLE READING DOCUMENTED BY THE SIGNATURES OF BOTH DOCTORS



IN RANDOMLY SELECTED 5 PATIENTS, FOR COMPLETE DOCUMENTATION (20 POINTS PER EACH PATIENT)

RESULTS III.

FULFILMENT OF THE 15 DAYS DURATION OF THE COMPLEX RESULTS OF THE EXAMINAION



IN RANDOMLY SELECTED 5 PATIENTS, FOR COMPLETE DOCUMENTATION (20 POINTS PER EACH PATIENT)

DISCUSSION AND CONCLUSION

- MAMMOGRAPHY SCREENING IS PROVABLE AS AN EFFECTIVE AND EFFICIENT HEALTH INTERVENTION THAT MAY REDUCE BREAST CANCER MORTALITY IN PATIENTS ATTENDING THE MAMMOGRAPHY EXANINATIONS.
- NOWADAYS IS GREATER EMPHASIS PLACED ON THE PROCESSING OF STATISTICAL OUTPUTS WHICH ARE NECESSARY FOR VERIFYING THE EFFECTIVENESS OF SCREENING.
- IN ORDER TO MAINTAIN THE QUALITY OF THE WORK OF SCREENING MAMMOGRAPHY WORKPLACES, THE CONTROL OF WORKPLACES SHOULD BE CARRIED OUT DURING THE FIRST FIVE YEARS OF WORK OF THE WORKPLACE EVERY YEAR; FOR THESE REASONS, A PERMANENT WORKING GROUP HAS BEEN SET UP AT THE MINISTRY OF HEALTH OF THE SLOVAK REPUBLIC, WHICH WOULD REGULARLY CHECK MAMMOGRAPHIC WORKPLACES INCLUDED IN THE SCREENING, AS WELL AS WORKPLACES THAT WOULD BE INTERESTED IN INCLUSION.

The background is a light gray gradient with several realistic water droplets of various sizes scattered across it. Some droplets are in the top left, some in the bottom right, and others are smaller and more numerous in the center and bottom. The droplets have highlights and shadows, giving them a three-dimensional appearance.

THANK YOU FOR YOUR ATTENTION