



EUROPEAN COMMISSION
JOINT RESEARCH CENTRE

Directorate F - Health, Consumers & Reference Materials (Ispra)
Health in Society

European Commission Initiative on Breast Cancer (ECIBC): European guidelines on breast cancer screening and diagnosis

ECIBC recommendation on:

Communication skills training for healthcare professionals working with women who undergo screening mammography

Healthcare question	Should communication skills training vs. no communication skills training be used for healthcare professionals working with women who undergo screening mammography?
Population	Healthcare professionals working with women who undergo screening mammography
Intervention	Communication skills training
Comparison	No communication skills training
Main outcomes	Explaining to subjects their risk of developing cancer, eliciting subjects' preferences for medical treatment, eliciting subjects' preferences for their role in decision making, used language easy to understand, explored beliefs or understanding of risk of cancer, encouraged to discuss concerns about cancer screening, checked understanding of benefits and risks, encouraged to ask questions, reached agreement on final plans to order cancer screening, composite general cancer risk communication, composite colon cancer screening shared decision making, improvement in perceived communication quality, improvement in colon cancer screening knowledge, participation rate (adjusted analysis), participation rate (all studies), anxiety, reported pain / discomfort
Setting	European Union
Perspective	Population (national health system)
Background	<p>Breast cancer is the most frequent cancer in women worldwide. Early detection of breast cancer by screening has shown to reduce disease specific mortality. In order to maintain and increase the quality of screening services, it is important to establish educational standards for professionals working in mammography screening programmes. A measurement of such performance is mammography readers' experience needed to work in a mammography screening programme.</p> <p>Breast cancer is the most common cancer in women worldwide. Early detection by screening is shown to reduce disease specific mortality. However, the service needs to be of high quality in order to balance the benefits and harms. In order to maintain and increase the quality in breast cancer services it seems important to ensure the professionals communication skills. The rationale of this clinical question was to explore whether communication skills training should be recommended as a part of the training before start working with screening and/or diagnostic</p>

	mammography.
Conflict of interest	Conflict of interest (CoI) for all GDG members were assessed and managed by the European Commission Joint Research Centre (JRC) following an established procedure in line with the institutional rules. GDG member participation in the development of the recommendations was restricted, according to CoI disclosure. Consequently, for this particular question, Mariangela Autelitano, Bettina Borisch, Stephen Duffy, Ruben van Engen and Kenneth Young were recused from voting. Miranda Langendam, as external expert, was also not allowed to vote, according to the ECIBC rules of procedure. More information
Date of the systematic review	20/09/2018 (evidence of effects) 28/02/2019 (economic evidence)

Assessment by the ECIBC Guidelines Development Group (GDG)

Problem: Is the problem a priority?						
Judgement	No	Probably no	Probably yes	Yes	Varies	Don't know
Research evidence	Early detection of breast cancer by screening is shown to reduce disease specific mortality. However, the service needs to be of high quality in order to balance the benefits and harms. In order to maintain and increase the quality in breast cancer services it seems important to ensure the professionals communication skills.					
Additional considerations	This question was prioritised by the GDG					

Desirable effects: How substantial are the desirable anticipated effects?						
Judgement	Trivial	Small	Moderate	Large	Varies	Don't know
Research evidence	Outcomes	Anticipated absolute effects* (95% CI)		Relative effect (95% CI)	Nº of participants (studies)	Certainty of the evidence (GRADE)
		Risk with no communication skills training	Risk with Communication skills training			
	Explaining to subjects their risk of developing		MD 0.10 higher (0.22 lower to	-	56 (1 RCT) ¹	⊕⊕○○ LOW ^{a,b,c,d}

	cancer assessed with: Physician Self-Rating Scale from: 1 poor to 5 excellent		0.42 higher)			
	Eliciting subjects' preferences for medical treatment assessed with: Physician Self-Rating Scale from: 1 poor to 5 excellent		MD 0.10 lower (0.21 lower to 0.01 higher)	-	56 (1 RCT) ¹	⊕⊕○○ LOW ^{a,b,c,d}
	Eliciting subjects' preferences for their role in decision making assessed with: Physician Self-Rating Scale from: 1 poor to 5 excellent		MD 0 (0.49 lower to 0.49 higher)	-	56 (1 RCT) ¹	⊕⊕○○ LOW ^{a,b,c,d}
	Used language easy to understand assessed with: Standardized subjects' rating Scale from: 1 poor to 5 excellent		MD 0.40 lower (0.69 lower to 0.11 lower)	-	56 (1 RCT) ¹	⊕○○○ VERY LOW ^{a,b,c,e}
	Explored beliefs or understanding of risk of cancer assessed with: Standardized subjects' rating Scale from: 1 poor to 5 excellent		MD 0.80 higher (0.06 higher to 1.54 higher)	-	56 (1 RCT) ¹	⊕○○○ VERY LOW ^{a,b,c,e}
	Encouraged to discuss concerns about cancer screening assessed with: Standardized subjects' rating Scale from: 1 poor to 5 excellent		MD 0.50 higher (0.1 lower to 1.1 higher)	-	56 (1 RCT) ¹	⊕○○○ VERY LOW ^{a,b,c,e}

	Checked understanding of benefits and risks assessed with: Standardized subjects' rating Scale from: 1 poor to 5 excellent		MD 0.60 higher (0.14 lower to 1.34 higher)	-	56 (1 RCT) ¹	⊕○○○ VERY LOW ^{a,b,c,e}
	Encouraged to ask questions assessed with: Standardized subjects' rating Scale from: 1 poor to 5 excellent		MD 0.50 higher (0.17 lower to 1.17 higher)	-	56 (1 RCT) ¹	⊕○○○ VERY LOW ^{a,b,c,e}
	Reached agreement on final plans to order cancer screening assessed with: Standardized subjects' rating Scale from: 1 poor to 5 excellent		MD 0.30 higher (0.28 lower to 0.88 higher)	-	56 (1 RCT) ¹	⊕○○○ VERY LOW ^{a,b,c,e}
	Composite general cancer risk communication assessed with: Standardized subjects' rating Scale from: 1 poor to 5 excellent		MD 0.40 higher (0.23 lower to 1.03 higher)	-	56 (1 RCT) ¹	⊕○○○ VERY LOW ^{a,b,c,e}
	Composite colon cancer screening shared decision making assessed with: Standardized subjects' rating Scale from: 1 poor to 5 excellent		MD 0.20 higher (0.46 lower to 0.86 higher)	-	56 (1 RCT) ¹	⊕○○○ VERY LOW ^{a,b,c,e}
	Improvement in perceived communication quality assessed with: Subjects' rating Scale from: 9 to 36		MD 2.19 higher (0.06 higher to 4.32 higher)	-	160 (1 RCT) ²	⊕⊕○○ LOW ^{f,g}
	Improvement		MD 0.30	-	160	⊕⊕○○

	in colon cancer screening knowledge assessed with: Subjects' rating Scale from: 0 to 4		higher (0.03 higher to 0.57 higher)		(1 RCT) ²	LOW ^{e,f}
	Participation rate (adjusted analysis)	Study population 176 per 1,000	251 per 1,000 (140 to 411)	OR 1.57 (0.76 to 3.27)	479 (1 RCT) ²	⊕⊕○○ LOW ^{f,h,j}
	Participation rate (all studies)	Low 180 per 1,000	254 per 1,000 (211 to 303)	OR 1.55 (1.22 to 1.98)	4690 (3 RCTs) ^{2,3,4}	⊕⊕○○ LOW ^{b,c,f,h}
		High				
		360 per 1,000	466 per 1,000 (407 to 527)			
	Anxiety - not reported	The included studies did not assess the outcome of anxiety.				
	Reported pain / discomfort - not reported	The included studies did not assess the outcome of reported pain or discomfort				
	<ol style="list-style-type: none"> 1. Price-Haywood EG, Roth KG, Shelby K, Cooper LA. Cancer Risk Communication with Low Health Literacy Patients: A Continuing Medical Education Program. J Gen Intern Med; 2009. 2. Huei-Yu Wang J, Ma GX, Liang W, Tan Y, Makambi KH, Dong R, Vernon SW, Tu SP, Mandelblatt JS. Physician Intervention and Chinese Americans' Colorectal Cancer Screening. Am J Health Behav; 2018. 3. Ferreira MR, Dolan NC, Fitzgibbon ML, Davis TC, Gorby N, Ladewski L, Liu D, Rademaker AW, Medio F, Schmitt BP, Bennett CL. Health Care Provider-Directed Intervention to Increase Colorectal Cancer Screening Among Veterans: Results of a Randomized Controlled Trial. J Clin Oncol; 2005. 4. Aubin-Auger I, Laouénan C, Le Bel J, Mercier A, Baruch D, Lebeau JP, Youssefian A, Le Trung T, Peremans L, Van Royen P. Efficacy of communication skills training on colorectal cancer screening by GPs: a cluster randomised controlled trial. Eur J Cancer Care (Engl); 2016. <ol style="list-style-type: none"> a. Unclear randomisation and concealment allocation. It cannot be excluded that differences in baseline intervention and control groups had an impact on results. Control group was more experienced, all trained in US and included more specialists in general internal medicine. b. Analysis did not take the clustering into account and adjustments for optimal and effective sample size were performed based on Huei 2018 intracluster correlation coefficient (ICC). c. Study subjects consisted in US population with low or inadequate health literacy due for breast/cervical or colon cancer screening. Indirect population for women 					

	<p>undergoing breast cancer screening.</p> <p>d. The study size is limited and the minimal important differences are not known; however, the 95%CI does not seem to indicate any important benefit or harm.</p> <p>e. Minimal important differences are not known; however, the 95%CI does not exclude an important benefit or harm.</p> <p>f. Study subjects consisted in US living Chinese population non-adherent to colorectal cancer screening recommendations. Indirect population for women undergoing breast cancer screening.</p> <p>g. Relative effects based on colorectal screening participation in the control group lower than 35% (adjusted to the effective sample size)</p>
Additional considerations	<p>The GDG considered small benefits in some of the outcomes (understanding of risk of cancer, discussing concerns about cancer screening, perceived communication quality, colon cancer screening knowledge, and participation rate). However, the GDG noted greater benefits in understanding of risks and participation rate.</p> <p>The GDG discussed whether an increase in participation rate is always a desirable effect. For example, in a population where participation is low, such as colorectal cancer screening, an increase in participation was a large benefit. Thus, although there were concerns about indirectness, participation rate was considered a benefit in this case by the GDG</p> <p>The GDG did not reach consensus on how substantial the desirable effects were and therefore voting was conducted:</p> <p>Among 17 GDG members without Col: 4 members voted "trivial", 10 members voted "small", and 3 members voted "moderate"</p>

Undesirable effects: How substantial are the undesirable anticipated effects?						
Judgement	Large	Moderate	Small	Trivial	Varies	Don't know
Research evidence	See research evidence for desirable effects					
Additional considerations	The GDG agreed by consensus that the undesirable anticipated effects were trivial.					

Certainty of evidence: What is the overall certainty of the evidence of effects?					
Judgement	Very low	Low	Moderate	High	No included studies
Research evidence	-				
Additional	The GDG noted concerns with indirectness, as the evidence relates to different populations (US and China), health professionals (general practitioners) and screening				

considerations	<p>programmes (colorectal cancer).</p> <p>The GDG agreed by consensus that the overall certainty of the evidence is very low because of imprecision and indirectness.</p>
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Values: Is there important uncertainty about or variability in how much people value the main outcomes?					
Judgement	Important uncertainty or variability	Possibly important uncertainty or variability	Probably no important uncertainty or variability	No important uncertainty or variability	No known undesirable outcomes
Research evidence	No systematic review was carried out				
Additional considerations	<p>One study (Whelehan P, 2016) used individual semi-structured interviews to explore experiences and opinions about mammography in the context of breast screening.</p> <p>They find that the interpersonal skills of the radiographers are crucial in determining quality of women's experience.</p> <p>Radiographers' ability to care sensitively for women may be impeded by their reactions to women's behaviour.</p> <p>Women recognised differences in radiographers' abilities to put them at ease. Staff difficulties included empowering women with the particularities of a burdensome technique, and maintaining compassionate care when under stress.</p> <p>The GDG did not reach consensus on how women value the main outcomes and therefore voting was conducted</p> <p>Among 18 GDG members without Col: 1 member voted "important uncertainty", 10 members voted "possibly important uncertainty", 6 members voted "probably no important uncertainty" and 1 member voted "no known desirable outcomes"</p>				

Balance of effects: Does the balance between desirable and undesirable effects favor the intervention or the comparison?							
Judgement	Favors the comparison	Probably favors the comparison	Does not favor either the intervention or the comparison	Probably favors the intervention	Favors the intervention	Varies	Don't know
Research evidence	-						

Additional considerations	<p>The GDG did not reach consensus on whether the balance of effects favours the intervention or the comparison, and therefore voting was conducted</p> <p>Among 18 GDG members without Col: 1 member voted "probably favours the comparison", 2 members voted "does not favour either", 14 members voted "probably favours the intervention" and 1 member abstained</p>
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Resources required: How large are the resource requirements (costs)?							
Judgement	Large costs	Moderate costs	Negligible costs and savings	Moderate savings	Large savings	Varies	Don't know
Research evidence	No research evidence has been identified about use of resources						
Additional considerations	<p>The GDG agreed that the resources needed for developing communication skills interventions vary according to the characteristics of the training strategy such as workshops, courses, e-learning or personalised strategies. All of them require careful planning and continual revision regarding course content, teaching methods, and responsibilities for facilitators. Also, the length and structure of the strategies would affect the associated costs. Resources needed may include the following:</p> <p><u>Workshop</u></p> <ul style="list-style-type: none"> - Didactic material - Videoconferences - Role-play scenarios - In-office physician training, interview with real women - Booklet summarizing evidence - Experienced facilitators <p><u>Training course</u></p> <ul style="list-style-type: none"> - Theoretical session - Role-play scenarios - Simulation - Booklet summarizing evidence - Experienced facilitators <p><u>E-learning</u></p> <ul style="list-style-type: none"> - Web-based platform - Didactic material - Quizzes and videos <p><u>Personalised strategies</u></p> <ul style="list-style-type: none"> - Coaching sessions - Follow-up phone calls - Individualised web-based video feedback 						

	<p>- Experienced facilitators</p> <p>The GDG noted that there are costs associated with training, however the specific training (short or continuous educations) and what professionals are trained is not specified and without any available studies, whether these costs are moderate or small is unknown.</p> <p>Also, litigations costs decrease if there is good communication before or during the screening process, not only when accidents occur. This has led to using training in communication skills as an intervention to decrease cost of litigations in these kinds of services. Therefore, the GDG noted that there are also some savings associated with training that are not quantifiable.</p> <p>The GDG agreed by consensus that the resources required are unknown.</p>
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Certainty of evidence of required resources: What is the certainty of the evidence of resource requirements (costs)?					
Judgement	Very low	Low	Moderate	High	No included studies
Research evidence	No studies identified to directly answer this question.				
Additional considerations	No studies were included				

Cost effectiveness: Does the cost-effectiveness of the intervention favor the intervention or the comparison?							
Judgement	Favors the comparison	Probably favors the comparison	Does not favor either the intervention or the comparison	Probably favors the intervention	Favors the intervention	Varies	No included studies
Research evidence	No studies identified to directly answer this question.						
Additional considerations	No studies were included						

Equity: What would be the impact on health equity?							
Judgement	Reduced	Probably reduced	Probably no impact	Probably increased	Increased	Varies	Don't know
Research evidence							
Additional considerations							

Research evidence	No systematic review was carried out
Additional considerations	<p>The GDG noted that there are concerns about paradoxical reactions resulting from information overload in population with lower health literacy. Appropriate communication skills should increase equity.</p> <p>The GDG agreed by consensus that health equity would probably increase.</p>

Acceptability: Is the intervention acceptable to key stakeholders?						
Judgement	No	Probably no	Probably yes	Yes	Varies	Don't know
Research evidence	No systematic review was carried out.					
Additional considerations	<p>The GDG noted that the acceptability for key stakeholders would be as follow:</p> <p><u>Healthcare professionals</u>: probably acceptable but time barriers and incentives are key factors</p> <p><u>Women</u>: acceptable</p> <p><u>Policy-makers</u>: acceptable</p> <p>However, the GDG noted that without an exact definition of the communication intervention the acceptability or not is less clear.</p> <p>The GDG agreed by consensus that the intervention would probably be acceptable to key stakeholders.</p>					

Feasibility: Is the intervention feasible to implement?						
Judgement	No	Probably no	Probably yes	Yes	Varies	Don't know
Research evidence	No systematic review was carried out					
Additional considerations	<p>The GDG noted that there may be some barriers to implementation, but again, this depends on the exact intervention and its cost.</p> <p><u>Healthcare professionals</u>: probably would find the intervention feasible.</p> <p><u>Policy-makers</u>: probably would find it feasible, unless it is a very expensive intervention.</p> <p>The GDG agreed by consensus that the intervention would probably be feasible.</p>					

Summary of judgements

	Judgements						
Problem	No	Probably no	Probably yes	Yes		Varies	Don't know
Desirable effects	Trivial	Small	Moderate	Large		Varies	Don't know
Undesirable effects	Large	Moderate	Small	Trivial		Varies	Don't know
Certainty of evidence	Very low	Low	Moderate	High			No included studies
Values	Important uncertainty or variability	Possibly important uncertainty or variability	Probably no important uncertainty or variability	No important uncertainty or variability			No known undesirable outcomes
Balance of effects	Favors the comparison	Probably favors the comparison	Does not favor either the intervention or the comparison	Probably favors the intervention	Favors the intervention	Varies	Don't know
Resources required	Large costs	Moderate costs	Negligible costs and savings	Moderate savings	Large savings	Varies	Don't know
Certainty of evidence of required resources	Very low	Low	Moderate	High			No included studies
Cost effectiveness	Favors the comparison	Probably favors the comparison	Does not favor either the intervention or the comparison	Probably favors the intervention	Favors the intervention	Varies	No included studies
Equity	Reduced	Probably reduced	Probably no impact	Probably increased	Increased	Varies	Don't know

Acceptability	No	Probably no	Probably yes	Yes		Varies	Don't know
Feasibility	No	Probably no	Probably yes	Yes		Varies	Don't know

Type of recommendation

Strong recommendation against the intervention	Conditional recommendation against the intervention	Conditional recommendation for either the intervention or the comparison	Conditional recommendation for the intervention	Strong recommendation for the intervention
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Conclusions

Recommendation	The ECIBC's Guideline Development Group (GDG) suggests communication skills training for healthcare professionals working with women who undergo screening mammography (conditional recommendation, very low certainty of the evidence).
Justification	<p>The GDG felt that no training was not appropriate but there was uncertainty about several factors that influenced the direction and strength of the recommendation. There was also uncertainty about what exactly the intervention entails.</p> <p>This recommendation was discussed as being applicable to all parts of the breast cancer screening programme, although what processes the screening programme covers was not exactly defined.</p> <p>Another reason for a conditional recommendation was due to the uncertainty about the evidence and the costs required, for the relevant human resources (if they are not available), as well as not knowing exactly what training to provide, which may prevent programmes from proceeding. In addition, there is uncertainty on the type of information to be presented to women, depending on their sociocultural background.</p>
Subgroup considerations	None were considered by the GDG.
Implementation considerations	This applies equally to the complete pathway of mammography screening (including further assessment when it is part of the screening programme).
Monitoring and evaluation	There should be a periodic monitoring of the interventions using satisfaction surveys of participants.
Research priorities	The GDG agreed that better knowledge about what women actually want to know about will inform the interventions and the type of training, if any.