QUALITY INDICATORS OF COLORECTAL CANCER SCREENING PROGRAM IN CATALONIA (SPAIN)

Mercè Peris, Gemma Binefa, Núria Diaz, Montse Garcia, Matilde Navarro

Cancer Prevention and Control Department
Institut Català d'Oncologia

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Catalan Colorectal Cancer Screening Program

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Population-based program

Started in 2000

L'Hospitalet, Barcelona

Screening policy

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- Target population: men and women aged 50-69
- Screening Test: faecal occult blood test (FOBT)
  - (Hema-screen® Immunostics.Inc.)
  - No dietary restrictions at initial test.
- Screening interval : two years
- Diagnostic study of positive results of FOBT: colonoscopy

Screening policy

- Demographic data: population-based register
- Free of charge, voluntary
- Invitation: personal letter by mail + reminder 6 weeks later
- In the 3rd round: Individual evaluation through a questionnaire to identify people at increased risk (family history/symptoms). This procedure is under evaluation as a triage step for FOBT or colonoscopy

Key Issues for Quality Assurance of CCR Screening Program

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- Official Target : Universal coverage of colorectal cancer screening in 2010
- Regional Guidelines on CCR Screening : Still missing
- Central coordination: Still missing
- Quality indicators: Available for the index area
- Central evaluation: Assigned
- Publication of results: Early reports 1 published and 1 in press, 4 in preparation. Full report of work in index area 2009.

Quality Indicators

- Performance Indicators
- Early Impact Indicators

Performance Indicators

All subjects included irrespective of participation in 3 rounds

Performance Indicators

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	1st ROUND	2nd ROUND	3rd ROUND
Eligible population	63,880	66,534	65,147
Participation	17.2% (11,011)	22.3% (14,818)	27.2% (17,740)
Adherence	---	67.4%	87.0%
Adequate FOBT	96.4%	95.5%	96.8%
Positivity	3.4% (372)	0.8% (123)	1.1% (189)

Performance Indicators

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	1st ROUND	2nd ROUND	3rd ROUND
Colonoscopy compliance	89.8%	87.8%	95.2%
Complete colonoscopy	92.3% (1st and 2nd rounds together)		91.1%
Repeated colonoscopy for polypectomy	32.7%	19.3%	8.9%
Colonoscopy complication rate	8.8‰ (n=4)	11.3‰ (n=2)	9.6‰ (n=2)

Performance Indicators

Positive Predictive Values (%)

	1st ROUND	2nd ROUND	3rd ROUND
Polyps (no adenoma)	6.7	1.6	3.7
Low Risk Adenoma	5.9	5.7	7.4
High Risk Adenoma	21.2	34.1	30.7
Invasive Cancer	6.2	10.6	14.3
Advanced Neoplasia*	27.4	44.7	45.0

* Advanced Neoplasia= High Risk Adenoma + Invasive Cancers

Early Impact Indicators

All subjects included irrespective of participation in 3 rounds

Early Impact Indicators

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Detection rate (‰)

	1st ROUND	2nd ROUND	3rd ROUND
Polyps no adenoma	2.3	0.1	0.4
Low Risk Adenoma	2.0	0.5	0.8
High Risk Adenoma	7.2	2.8	3.3
Invasive Cancer	2.1	0.9	1.5
Advanced Neoplasia	9.3	3.7	4.8

* Advanced Neoplasia= High Risk Adenoma + Invasive Cancers

Early Impact Indicators

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Stage distribution of screen detected cancers

	1st ROUND		2nd ROUND		3rd ROUND	
	N	%	N	%	N	%
I	8	34.8	7	53.8	9	33.3
II	5	21.7	2	15.4	5	18.6
III	8	34.8	2	15.4	9	33.3
IV	2	8.7	2	15.4	4	14.8
TOTAL	23	100.0	13	100.0	27	100.0

Early Impact Indicators

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Colonoscopy Results from the individuals with higher risk identified by a Colorectal Risk Questionnaire- 3rd Round

Total individuals:91; Family history: 46; Symptoms: 45

	Family history		Symptoms	
	n	%	n	%
Negative	27	58.7	33	73.3
Polyps (hp)	3	6.5	1	2.2
LRA	7	15.2	3	6.7
HRA	8	17.4	2	4.4
Invasive cancer	1	2.2	6	13.3

Early Impact Indicators

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Timeline of screening process

	1st ROUND	2nd ROUND	3rd ROUND
Timeline (days)	Median	Median	Median
First stool sample and FOBT result *	6	7	9
FOBT positive and colonoscopy**	41	47	49
Diagnosis of cancer and first treatment	--	--	60

•FOBT returned by mail in 3rd round, FOBT was delivered to Primary Health Care Centers in 1st and 2nd round.

•** A medical exam, ECG, xR and a blood test prior to colonoscpy

Impact indicators

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Follow-up of screen-detected adenomas

- Adherence to follow-up 88.0%
- HRA detection rate at follow up 19.2%

Conclusions (I)

- To increase participation:
  - To run health education programs to the general public and to health professionals to increase awareness about CRC prevention
  - To achieve higher implication of General Practitioners
  - The full budget and human resources are needed to extend the program to the whole region

- It seems beneficial to select subjects at higher-than-average risk of developing CRC but at increased resources

Conclusions (II)

- CRC screening indicators must be reported using common terminology definitions and classifications, suited to the screening approach as well as diagnosis and treatment in order to compare data from other programs.
- We are searching for active involvement in cancer screening networks.

Thank you for your attention

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m.peris@iconcologia.net