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CRC screening in the Czech Republic and its new population-based design

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CRC incidence and mortality: GLOBOCAN 2008 \rightarrow 2012

Incidence – 10 highest in Europe



Source: Ferlay J et al.GLOBOCAN 2008 v1.0, Cancer Incidence and Mortality Worldwide: IARC CancerBase No. 11 Available from: http://globocan.iarc.fr

Incidence, mortality, prevalence (2000 \rightarrow 2011*)

Patients No	2000	2011	Change
Incidence	7,559	8,176	+ 617 (8.2 %)
Mortality	4,533	3,961	- 572 (-12.6 %)
Prevalence	30,504	51,833	+ 21,329 (69.9 %)

Source: Czech National Cancer Registry * comparison of 3-years time periods

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Time trend in CRC stage distribution

	2000	2011	change	trend	2011 (screening)*
Stage I	16 %	25 %	+9%	↑ ↑	47 %
Stage II	27 %	24 %	-3%	\downarrow	19 %
Stage III	17 %	24 %	+7%	1	24 %
Stage IV	23 %	21 %	-2%	\downarrow	10 %
Stage unknown	18 %	5 %	-13%	$\downarrow\downarrow$	

Source: Czech National Cancer Registry

* Source: Czech CRC screening registry, proportion among known

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Positive epidemiology trend main reasons

Improvement in diagnosis and therapy
National CRC screening program

Population-based CRC survival

	5-year relative survival of treated patients in time periods (values in % with 95% confidence intervals)							
Stage	Comparison of two older time periods cohort analysis		Comparison of three recent time periods					
	1990-1994	1995-1999	2000-2003	2004-2007	2008-2011			
Stage I	-	75.9 (74.2-77.7)	80.2 (78.3-82.1)	85.4 (83.7-87.1)	90.0 (88.5-91.5)			
Stage II	-	63.0 (61.4-64.5)	65.8 (64.2-67.5)	71.6 (70.1-73.1)	77.1 (75.7-78.6)			
Stage III	40.2 (38.0-42.5)	41.7 (39.9-43.5)	45.7 (43.8-47.6)	52.0 (50.3-53.6)	58.0 (56.5-59.5)			
Stage IV	11.9 (10.4-13.3)	10.7 (9.6-11.8)	11.2 (10.0-12.4)	12.9 (11.9-14.0)	14.5 (13.4-15.6)			
All stages	47.8 (46.8-48.8)	51.6 (50.8-52.5)	53.0 (52.1-53.8)	57.3 (56.5-58.1)	62.0 (61.2-62.8)			

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Czech CRC screening program

- 2000: age \geq 50, gFOBT biannually, GP \rightarrow colonoscopy
- 2006: preventive colonoscopy database (on-line)
- 2009: new design

- age 50 - 54: gFOBT/FIT annually \rightarrow FOBT+ colonoscopy

- age \geq 55: gFOBT/FIT biannually \rightarrow FOBT+ colonoscopy screening colonoscopy (10 years interval)

2014: personal invitation → population based program

Target population overall coverage

Stepan Suchanek

Target population coverage (2001 – 2013)

- European recommendation on population coverage: accepted 45%, recommended 65%
- opportunistic program: 2001 2013

Population-based program introduction in 2014

- Invited: 1 500 897 individuals
 - 52.7 % of target population
- Participation (FOBT, colonoscopy): 217 630 people
 <u>14.5% of invited</u>

National program results (2006 – 2015)

	Year	Colonoscopy	Adenoma	Ratio	Cancer	Ratio
	2013	21 970	8 755	39,8%	814	3,7%
FIT+	2014	27 449	11 127	40,5%	881	3,2%
colonoscopy	2015*	2 155	759	35,2%	62	2,9%
	2006 - 2015	141 353	51 173	36,2%	5 813	4,1%
	2013	4 964	1 361	27,4%	48	1,0%
Screening	2014	8 693	2 370	27,3%	69	0,8%
colonoscopy	2015*	971	194	20,0%	13	1,3%
	2009 - 2015	29 461	7 653	26,0%	274	0,9%
All preventive colonoscopies	2006 - 2015	170 814	58 826	34.4%	6 087	3,6%

* Interim results, March 2015

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Program future directions

- Database linkage
 - oncology registry
 - screening database
 - health insurance database
- Population-based setting continuation
- FIT standardization
- Cut-off level setting
- Preventive colonoscopies quality control

Conclusion

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- The main reason is the improvement in diagnosis and therapy and long-lasting national screening program
- The further progress is expected after the population based program was introduced

Acknowledgement

- Centers for screening colonoscopy
- General practitioners
- Board for CRC Screening of the Czech Gastroenterology Society
- Committee for CRC Screening of the Czech Ministry of Health

3. NÁRODNÍ KONGRES O KOLOREKTÁLNÍM KARCINOMU

11.–12. 12. 2015 Clarion Congress Hotel Prague

www.crc2015.cz

Pořádá: Společnost pro gastrointestinální onkologii ČLS JEP

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Thank you for your attention