

COLORECTAL CANCER: A CHALLENGE FOR HEALTHY LIFESTYLE, SCREENING AND PROPER CARE

Brno, 29 May 2015: For the fourth time in a row, the second largest city of the Czech Republic will host the European Colorectal Cancer Days, an international conference dedicated to the issue of colorectal cancer. The tradition of this event, which was started four years ago by Dr Pavel Poc, a Member of the European Parliament, and by Dr Ladislav Dusek, Director of the Institute of Biostatistics and Analyses of the Masaryk University, will again attract a wide spectrum of visitors from many European countries, and from across various groups involved in the fight against colorectal cancer. The main topics of the programme will include a healthy lifestyle, evaluation of the recently introduced personalised invitations of Czech citizens to cancer screening programmes, as well as the issue of availability of a high-quality care provided to patients diagnosed with cancer.

The Czech Republic is one of the countries with the highest burden of cancer: each year, more than 77,000 people are diagnosed with cancer, and almost 28,000 patients die of cancer in this country. The prevalence of cancer patients has been rising steadily, besides other things as a result of ageing of the Czech population. At the end of 2013, there were more than 450,000 citizens living in the Czech Republic who had received a diagnosis of cancer. These alarming numbers themselves justify the need of effective cancer prevention, and of planning the costs of cancer care. More than 8,000 Czech men and women are diagnosed with colorectal cancer each year; unfortunately, the disease is still very often diagnosed at advanced stages (Table 1). The high treatment burden places heavy demands on the organisation of cancer care. Before treatment initiation, each patient should be assessed by a multidisciplinary team of specialists, who would evaluate the patient's condition, and would determine an optimum treatment. Patients diagnosed at advanced stages of cancer should be treated in Comprehensive Cancer Centres. A list of centres concentrating the highly specialised treatment, as well as the advice on how to make an appointment, is available at www.linkos.cz – the official website of the Czech Society for Oncology (most of the patient information is available in the Czech language only).

Among the organised screening programmes in the Czech Republic, colorectal cancer screening has had the lowest participation rate so far. Over half a million men and women undergo the faecal occult blood test (FOBT) each year. During the subsequent colonoscopy, adenoma (a non-malignant tumour which might develop into colorectal cancer if not detected) is removed in more than 10,000 individuals. Moreover, approximately 900 cases of colorectal cancer are detected each year by

screening examinations; however, the chance of cure is very good if the tumour is detected at an early stage. Despite these good prospects, however, a large proportion of Czech men and women still does not participate in cancer screening programmes, missing the opportunity of avoiding cancer, or at least reducing its consequences significantly. For this reason, a project of personalised invitations of Czech citizens to cancer screening programmes was launched in January 2014, aiming to increase the participation rate in these preventive examinations. Invitations are sent to those citizens who have not participated in the respective screening examinations yet. The project was prepared by the Czech Ministry of Health in cooperation with expert medical societies and health insurance companies. Health insurance companies themselves invite their clients to screening examinations.

In 2014, almost 2 million Czech citizens were invited to participate in screening programmes. More than 1.5 million persons were invited to colorectal cancer screening alone, and almost 15% of those invited actually responded (by undergoing FOBT or screening colonoscopy). According to preliminary data, adenomatous polyps were detected in more than 4,000 patients; an easy treatment of polyps means a complete cure for such patients. Supplements to this press release summarise the results of personalised invitations during the first 12 months of the project (Tables 2 and 3). In cooperation with the Czech Ministry of Health, the evaluation was performed by the Institute of Biostatistics and Analyses of the Masaryk University, based on data provided by health insurance companies.

Even an optimally functioning screening, however, cannot provide much help to patients who were diagnosed with cancer in the past. In the Czech Republic, there are more than 50,000 patients who have had colorectal cancer in their medical history. Standardised, high-quality and available care of these patients is another challenge for the Czech health care system. Analysed data have shown large differences in the availability of modern treatment among individual regions of the Czech Republic, particularly in the treatment of advanced stages of CRC. Inadequate centralisation of surgical treatment poses yet another problem: very complicated cases are often operated on in health care facilities which only deal with less than 15 such procedures annually. Improvements of this situation, as well as strengthening of the standard approach towards all patients, are among the biggest challenges for this segment of medicine in the Czech Republic.

Organization of the conference: Pavel Poc, Member of the European Parliament; Institute of Biostatistics and Analyses, Masaryk University, Brno (www.iba.muni.cz); Institute of Health Information and Statistics of the Czech Republic (www.uzis.cz).

Detailed information about the conference is available at www.crcprevention.eu.

Table 1. Basic characteristics of colorectal cancer patients in the Czech Republic in the period 2008–2012¹

Parameter	Sex	Value divided according to sex	Overall value for both sexes
Incidence rates (numbers of new cases)			
Number of new cases (per 100,000 population per year)	Men:	93.6	77.2
	Women:	61.3	
Absolute number of new cases (per year)	Men:	4,820	8,095
	Women:	3,275	
Proportion of all newly diagnosed cancers	Men:	11.9 %	10.6 %
	Women:	9.2 %	
Trend in the period 2002–2012	Men:	+2.5 %	+0.8 %
	Women:	-2.1 %	
Typical age of patients (25th–75th percentile)	Men:	61-76 years	62-77 years
	Women:	62-79 years	
Occurrence men : women			1.5 : 1
Mortality rates (numbers of deaths)²			
Number of deaths (per 100,000 population per year)	Men:	42.6	35.7
	Women:	29.1	
Absolute number of deaths (per year)	Men:	2,191	3,743
	Women:	1,552	
Trend in the period 2002–2012			-17.8 %
Proportion in the overall mortality	Men:	4.1 %	3.5 %
	Women:	2.9 %	
Prevalence rates (patients still alive)			
Number of persons with cancer in their medical history (per 100,000 population; as on 31 Dec 2012)	Men:	576.2	503.3
	Women:	433.0	
Absolute number of persons with cancer in their medical history (as on 31 Dec 2012)	Men:	29,736	52,894
	Women:	23,158	
Trend in the period 2002–2012	Men:	+61.3 %	+55.3 %
	Women:	+ 8.2 %	

¹ The overall epidemiological burden; data involves all records on respective cancers, including those detected as subsequent primary tumours in the same person. *Source of data:* Czech National Cancer Registry

² *Source of data:* Czech Statistical Office

Incidence = Number of newly diagnosed cancers per one year. It can be expressed as an absolute number of cases per year or as a rate per 100,000 persons (men or women) per year.

Mortality = Number of deaths from a given cancer per one year. It can be expressed as an absolute number of deaths per year or as a rate per 100,000 persons (men or women) per year.

Prevalence = the number of people who had received a diagnosis of a given cancer and who were alive on the 31 December 2012. It can be expressed as an absolute number or as a rate per 100,000 persons (men or women).

Results of the project of personalised invitations

Table 2. Numbers of insured persons invited to individual cancer screening programmes during 2014 (invitations sent to a total of 1,959,504* persons).

Variant of invitation letter	Invitation to participate in		
	cervical cancer screening	breast cancer screening	colorectal cancer screening
Men invited to participate in colorectal cancer screening			783,151
Women invited to participate in cervical cancer screening	217,484		
Women invited to participate in breast cancer screening		126,962	
Women invited to participate in cervical and breast cancer screening	114,161	114,161	
Women invited to participate in colorectal cancer screening			391,152
Women invited to participate in cervical and colorectal cancer screening	46,530		46,530
Women invited to participate in breast and colorectal cancer screening		61,853	61,853
Women invited to participate in all cancer screening programmes	218,211	218,211	218,211
Total number of insured persons invited to cancer screening programmes	596,386	521,187	1,500,897

* The total number of invited persons does not correspond to the sum of numbers of invited persons to individual programmes, because many insured persons are invited to multiple programmes at the same time.

Table 3. Results of cancer screening programmes before the start of personalised invitations, and modelled results after the start of personalised invitations, all age groups.

Monitored period of organised screening	Cervical cancer (C53)	Breast cancer (C50)	Colorectal cancer (C18–C20)
	2010–2013	2002–2013	2006–2013
Total number of performed screening examinations	8,411,969 cytology examinations	4,863,628 mammography examinations	3,559,558 FOBT 19,798 PSC
Number of patients with a positive result of screening examination*	19,405 patients with a cytological finding of precancerous lesion or carcinoma	24,994 patients with a finding of breast cancer	44,378 patients with a finding of adenoma 5,066 patients with a finding of carcinoma
<i>* In the vast majority of these findings, there is a high chance of a complete cure.</i>			
Number of people coming as a result of personalised invitations (2014 – preliminary data)	55,393 cytology examinations	70,082 mammography examinations	217,214 FOBT or PSC
Number of patients with a positive result of screening examination as a result of personalised invitations (2014 – preliminary data)*	105 patients with a cytological finding of precancerous lesion or carcinoma	332 patients with a finding of breast cancer	4,170 patients with a finding of adenoma 165 patients with a finding of carcinoma
<i>* In the vast majority of these findings, there is a high chance of a complete cure.</i>			

Abbreviations: FOBT = faecal occult blood test; PSC = primary screening colonoscopy

Source of data: Institute of Biostatistics and Analyses of the Masaryk University (cancer screening programmes), Czech National Reference Centre, health care payers