Primary care at the forefront of colorectal cancer screening

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Introduction

1.7.2000

Institute of General Practice, Prague

Training practice
Special interest in colorectal cancer screening

• A member of a Foundation which initiated colorectal cancer screening in the Czech Republic in 2000

• Representative of GPs in Czech National Colorectal Cancer Screening Committee

• Education for GPs and public on CRC screening

• Research on
  - the role of primary care physicians in screening
  - attitudes toward screening in target population
  - FOBT methods
Characteristics of the medicine in the 3rd millenium

• Key issue: Non-communicable diseases

• Fascinating technology development

• Successes in diagnostics and treatment and improvement of prognosis of serious diseases

Successes and expectations push medicine

➢ towards prevention

➢ towards pro-active interventions in asymptomatic people
Prevention and screening

Consequences:

• Ethics (nature of patient – doctor relation)

• Safety

• Costs

• Capacity
Colorectal cancer is the most preventable visceral form of cancer

• Stage of diagnosis matters!

  Early diagnostics helps to increase 5-year survival: Duke’s A (90%) v. stage with distant metastases (< 10%)

• Colorectal cancer is preventable before exists.

  Identification and excision of risk polyps

• About half of polyps/cancers bleed and blood can be detected by simple test.

• Colonoscopy is a method with high diagnostic and curable capacity
Early diagnostics of colorectal cancer

• The principal method of identification of colorectal cancer stays symptomatic presentation to GPs who are source of referral to secondary care.

• 90% of colorectal cancers detected

• Importance of research on early diagnostics
Early diagnostics of colorectal cancer

• GP Competence
• Interdisciplinary cooperation
• Referral system
• Capacity
 ➢ Access to colonoscopy, waiting times
 ➢ Prioritization

Research:
- on sensitivity , specificity, PPV of symptoms
- on markers (iFOB, M2-PK, calprotectin stool test)
Role of primary care in prevention

Primary prevention

Secondary prevention:
-screening programmes for high risk persons
-screening programmes for average risk persons

Early diagnosis in symptomatic

Quality of care/tertiary prevention
The involvement of GPs varies in countries according to chosen strategy:
- **Direct**: performing FOBT (CR, SLO, GER)
- **Indirect**: recruitment for colonoscopy screening (Pol)
- **Supportive**: administrative, advices (UK)

The involvement of people
- Population based screening (central invitation…UK)
- Organized screening (GP/patient activities, GE, Czech)
- Opportunistic screening (Poland)

Lionis C. Colorectal cancer screening and the challenging role of general practitioner/family physician: an issue of quality, Quality in Primary Care 2007; 15:129-31
Seifert B., The role of primary care in colorectal cancer screening: The experience from the Czech Republic, Neoplasma, 2008; 55:74-80
Benefits of primary care involvement in screening program

- complex approach to person
- personalised care
- additional value of preventive/screening programs (CV, GYN, MAM, CRC)
- cheaper
Burden of screening program in primary care

- Workload (up to 300 FOBT per year per practice)
- Organization issues
- Ethics
- Bad news
What matters the most in screening?

If we put money in colorectal cancer screening what affects the most the outcomes?

1. Adherence rate?

2. Choice of primary test?

3. Quality/capacity of endoscopic services?

4. Program monitoring /data collection?
1. Adherence rate
Population based v. organized screening

• Programs using invitation system show higher adherence of target population

• Central invitation is the only way how to get participation over 50%.

• Invitation via GP offices increases the adherence rate in 8% (UK)

**CZECH PROGRAM:** letters administered by sick funds (different for all three programs) will invite people to GPs (gynaecologists, mamma centrum) since 2013.
1. Choice of primary test
Dietary restriction is not indicated for programmes using either guaiac-based or immunochemical tests

- Drug restriction is not recommended for population screening programmes using either guaiac-based or immunochemical test

- The iFOBT is preferable over gFOBT (higher participation, smaller number of stool samples needed, automated reading, greater sensitivity for detection of advanced adenomas, similar PPV)
Optimal FOBT

- Without **diet** restriction
- Simple (user friendly) quantitative **sampling**
- Easy **logistics** (POCT?)
- Automatic **reading**

- Cut off options with regards to
  - optimal sensitivity and specificity
  - safety, capacity and cost/benefit
  - risk groups (men, seniors, diabetics)

➢ **Quantitative iFOB tests**
FOBT: Cut off optimization

<table>
<thead>
<tr>
<th>CUT OFF</th>
<th>Number of colonoscopies</th>
<th>Sensitivity</th>
<th>Specificity</th>
<th>PPV</th>
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Chen, 2007: 100 – 150ng/ml faecal hemoglobin
Rossum, 2009: 75 ng/ml for the Netherland
200ng/ml where CS capacity is insuff.

Recent Czech study shows, that suggested cut off 75ng/ml would mean FOBT positivity rate 12-16% compare to current 4% with gFOBT.
4. Program monitoring/data collection?
# Data collection

## Epidemiology:
- incidence
- prevalence
- mortality
- staging
- 5 years survival
- Quality of life

## Screening:
- FOBT
- PS colonoscopy
- S colonoscopy

## Follow up

## Diagnostics

## Treatment

## Costs, Capacity

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Primary care data: Effect of measures for improvement

- **centrally** collected (hard) data/indicators:
  - FOBT adherence rate
  - FOBT positivity rate
  - GPs, gynaecologists involvement
  - regional differences

- **primary** care collected data (experimentally)
  - waiting times for colonoscopies
  - compliance with colonoscopy in FOBT positives
  - feedback on endoscopic services/adherence to guidelines

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Colorectal Cancer: Imperatives for primary care

- Do not miss a symptomatic cancer/refer in time!
- Identify high risk patients!
- Screen for colorectal cancer!
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