European Digestive Cancer Days 2017
CRC screening: Differences between on-going programmes - Germany
Differences between on-going programmes
Germany

A little bit of statistics:

- 62000 cases of CRC per year in Germany
- Incidence: 2nd in women, 3rd in men
- Mortality: 26,000 cases per year
- Age standardized death rates
  - Decrease from 1999 to 2008
    - Females: -27.9%
    - Males: -20.5%
CRC Screening in Germany

Opportunistic screening
• FOBT starting at 50, annual
• Since 2002: Colonoscopy
  • starting at 55 years
  • if normal repeat after 10 years
• Data from the ZI:
  • 5.8 million screening colonoscopies =
  • 21.3% of all eligible males
  • 23.8% of all eligible females.
• Highest participation rates between 65-69 years:
  • 27.6% males
  • 30.5% females
Cumulative participation in the screening colonoscopy program in Germany 2003-2014

Participation rate, %

Cumulative participation in the screening colonoscopy program in Germany 2003-2014

Age groups

- 55-59
- 60-64
- 65-69
- 70-74
- 75-79
- 80+
- 55-74

Participation rate, %

males
females
## Participation in the German screening colonoscopy program

<table>
<thead>
<tr>
<th>Author, year</th>
<th>Study population</th>
<th>Study location</th>
<th>Time of study</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hermann et al., 2015</td>
<td>15.014 participants in the EPIC trial (23-65 years)</td>
<td>HD</td>
<td>1994-2009, questionnaire every 3 years</td>
<td>Positive correlation between higher qualification/socioeconomic status and use of screening colonoscopy.</td>
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<tr>
<td>RKI 2012</td>
<td>Telephone interview of 22.050 people</td>
<td>Germany</td>
<td>09.2009-07.2010</td>
<td>86.4% of entitled persons were aware of screening colonoscopy, female &gt; men (88.4% vs. 83.9%), higher education &gt; lower (84.8% vs. 77.3%).</td>
</tr>
<tr>
<td>Stock et al., 2011</td>
<td>AOK Hessen, 108.225 insured persons</td>
<td>Hessen</td>
<td>01.2000-12.2008</td>
<td>23.2% of males and 26.3% of females over 50 years had screening colonoscopy</td>
</tr>
</tbody>
</table>

Factors that influence participation: Gender, higher qualification and socioeconomic status
Results of Screening Colonoscopy in Germany

2014:
At least one adenoma
• 31.3% of males
• 20.4% of females

CRC
• 1.1% of males
• 0.6% of females

Advanced adenoma
• 8.4% of males
• 4.9% of females

Complication rate 1.76/1000 colonoscopies (bleeding, cardiopulmonary)

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Adenoma and carcinoma detection rates according to age in the German colonoscopy screening program (2003-2012)
Efficacy of Screening Colonoscopy in Germany

Estimates 2003-2012:

• 180,000 CRC cases avoided (1/28 colonoscopies)
• 40,000 CRCs detected earlier than without screening
  • Majority of patients < 75 years
• 4,500 wrong diagnoses (28% in patients >75 years)

Brenner at al., Clin Gastroenterol Hepatol 2015; EJC 2015
CRC Screening in Germany: Novel Developments

- Organized invitation scheme planned (KFRG 2013), but not yet implemented
- Novel since April 2017:
  - FIT for screening reimbursed, will replace guaiac FOBT
  - Only quantitative tests
  - Quality assurance required
  - Implementation pending