PCCRC in the Dutch CRC screening program

Still work in progress

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Possible conflicts of interest

• No conflicts of interest
Dutch CRC screening program

- Organised screening program
- Population 55-75 year
- Biannual FIT.
**Enrollment of target population**

**UITNODIGINGSOVERZICHT**
Het bevolkingsonderzoek darmkanker gaat geleidelijk van start. Wanneer u een uitnodiging ontvangt, hangt af van uw geboortejaar. U kunt dit in onderstaand overzicht opzoeken.

<table>
<thead>
<tr>
<th>Jaar</th>
<th>Aantal uitnodigingen</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>875.000</td>
</tr>
<tr>
<td>2015</td>
<td>1.195.000</td>
</tr>
<tr>
<td>2016</td>
<td>1.538.000</td>
</tr>
<tr>
<td>2017</td>
<td>1.990.000</td>
</tr>
<tr>
<td>2018</td>
<td>2.218.000</td>
</tr>
<tr>
<td>2019</td>
<td>2.260.000</td>
</tr>
<tr>
<td>2020</td>
<td>2.260.000</td>
</tr>
<tr>
<td>2021</td>
<td>2.260.000</td>
</tr>
</tbody>
</table>
Quality of colonoscopy important for outcome of a screening program

• Aim CRC screening program:
  • To reduce CRC incidence: detect and remove adenoma
  • To reduce CRC mortality: screen-detected CRC versus PCCRC

• Safety and patient satisfaction of the endoscopic procedure.
The Dutch CRC screening program

- Five region Screening Organization:
  - Regional Coordinator Gastroenterologist (RCMDL)
    - Quality of screening colonoscopies

Screening Endoscopy services n=115
Screening Endoscopist n = 400
Quality indicators of all screening colonoscopies

- Audits every year
- Quality indicators/endoscopist

Lee et al. Gut 2012; 61: 1050-7
ScreenIT

Fill in
- Conclusion
- Recommended surveillance interval
Surveillance interval based on adenoma score

- Adenoma score*: 0 screening at 10 years
- Adenoma score*: 1-2 surveillance at 5 years
- Adenoma score*: 3-5 surveillance at 3 years
A CRC diagnosed after a screening exam in which no cancer is detected and before the date of the next recommended exam
### Classification of Colorectal Cancers

<table>
<thead>
<tr>
<th>Classification</th>
<th>Colorectal Cancer</th>
<th>Interval (years)</th>
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</thead>
<tbody>
<tr>
<td><strong>Interval CRC after FIT</strong></td>
<td>After negative FIT</td>
<td>Within 2 years</td>
</tr>
<tr>
<td><strong>Non-compliance CRC in FIT-programma</strong></td>
<td>No participation FIT screening</td>
<td></td>
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<tr>
<td>- non-responder FIT</td>
<td></td>
<td></td>
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<tr>
<td>- non-participant FIT</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Post colonoscopy CRC</strong></td>
<td>After positieve FIT screening and colonoscopy</td>
<td></td>
</tr>
<tr>
<td>- Adenoma score*: 0</td>
<td></td>
<td>Within 10 years</td>
</tr>
<tr>
<td>- Adenoma score*: 1-2</td>
<td></td>
<td>Within 5 years</td>
</tr>
<tr>
<td>- Adenoma score*: 3-5</td>
<td></td>
<td>Within 3 years</td>
</tr>
<tr>
<td><strong>Non-compliance carcinoom coloscopieprogramma</strong></td>
<td>Na positieve FIT screening en geen colonoscopie</td>
<td></td>
</tr>
<tr>
<td>- bij non-responder colonoscopy</td>
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<tr>
<td>- bij non-participant colonoscopy</td>
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<tr>
<td>- geëxcludeerde colonoscopie</td>
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</tbody>
</table>
PCCRC

- All screenee invited in 2014 AND underwent colonoscopy.

  Linkage to National Cancer Registry
  Search for all CRCs

  - up to 6 months after screening colonoscopy and before next recommended colonoscopy
  - up to 6 months after screening colonoscopy and within 10 years.
Variation in recommended surveillance interval
Variation in recommended surveillance interval
First lesson learnt:

Mandatory field recommended surveillance interval:

1. 0-1 year
2. 3 years
3. 5 years
4. 10 years
Second: definition PCCRC

A CRC diagnosed after a screening colonoscopy in which no cancer is detected and before the date of the next recommended colonoscopy
Addition to definition of PCCRC

A CRC diagnosed after a screening colonoscopy in which no cancer is detected and before the date of the next recommended colonoscopy based on the national follow-up polypectomy guideline.
Number of FIT positives: 40,943
Dutch CRC screening program in 2014

Number of FIT positives: 40,943

Total number of colonoscopies:

31,500
Screen detected CRC in Dutch screening program in 2014

- Total number of colonoscopies: 31500
- Screen detected: 2483
- Screen detected percentage: 7.8%
Number of CRCs after linkage with the National Cancer registry

- up to 6 months after screening colonoscopy and before next recommended colonoscopy

- up to 6 months after screening colonoscopy and within 10 years

- Total number of colonoscopies
- Screen detected
- ScreenIT detected PCCRC

31500
2483
82
To confirm number of PCCRCs

- Regional Coordinator Gastroenterologist (RCMDL)
- Centrally discussed monthly
- Consensus
Defining CRCs

34% no PCCRC but Screen-detected CRC
Preliminary PCCRC rate in the Dutch CRC screening program in 2014

- Total number of colonoscopies: 31500
- Screen detected: 2483
- PCCRC: 54

PCCRC rate: 0.2%
PCCRC rate in the Dutch CRC screening program in the different regions 2014

Total 31,500

- Netherlands: 7.8% total colonoscopies, 0.2% PCCRC
- Region North: 7.8% total colonoscopies, 0.3% PCCRC
- Region East: 8.0% total colonoscopies, 0.06% PCCRC
- Region Middle-West: 8.0% total colonoscopies, 0.1% PCCRC
- Region South-West: 7.8% total colonoscopies, 0.15% PCCRC
- Region South: 8.5% total colonoscopies, 0.2% PCCRC
2659 FIT-positives who underwent colonoscopy

Three PCCRC (0.4%) were detected within 11–28 months

Location: ascending, sigmoid and rectum

Endosc Int Open 2018 Sep; 6(9): E1140–E1148.
Conclusions

• Reduce variation for recommended surveillance interval:
  – Mandatory field for recommended surveillance interval
  – Choose between 4 options, according to guideline recommendations

• Definition of PCCRC
  – Next recommended surveillance colonoscopy according to guideline

• 1/3 of assumed PCCRC appeared to be screen-detected

• Preliminary PCCRC rate of around 0.2%

Manon Spaander