ICSN CRC working group initiative to monitor the impact of COVID-19 on CRC screening programs across the world

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No conflict of interest to declare
Agenda

CRC screening in the COVID emergency

Assessing the impact of disruption

ICSN initiative

Preliminary results
Screening Programme Stopped

February
Hong Kong

Early March
Italy 8th
Spain (Basque) 9th
Poland - 16th
Slovenia - 16th
Guernsey - 16th
Norway 16th

Late March
Finland -
Netherlands - 18th
Argentina - 19th
Canada (Ontario) - 23rd
England - 23rd
S Ireland - 23rd
Wales - 20th
Scotland - 30th
New Zealand - 23th
USA Kaiser Permanente
Belgium

April
Sweden
Chile
N Ireland
Japan

Late March
Finland -
Netherlands - 18th
Argentina - 19th
Canada (Ontario) - 23rd
England - 23rd
S Ireland - 23rd
Wales - 20th
Scotland - 30th
New Zealand - 23th
USA Kaiser Permanente
Belgium

April
Sweden
Chile
N Ireland
Japan

Did Not Stop!
Denmark

No National Screening Policy
Germany
COVID-19 era

April
- Hong Kong 3rd

May
- Netherlands 12th
- Finland 18th
- Spain 18th
- Belgium (Flemish) 12th

June
- Japan
- New Zealand 4th

July
- Canada (Ontario)
- Poland
- Slovenia
- Finland
- England
- Malta
- Wales

August
- Norway 3rd

September
- USA Kaiser Permanente

Courtesy. Prof. S Halloran
Programmes were often **not able to restart at full capacity**, as the **volume of procedures was lower** even without restricting the opening time, as a result of more stringent infection control and physical distancing measures.

A part of the population will have a longer delay than the duration of the disruption.
The impact of disruption

Real world data about the impact of screening delays on morbidity are lacking and therefore indications to inform decision making for screening programs is coming in this first phase mainly from well-established and validated decision models.

Modellers from all around the world have joined forces in the COVID-19 and Cancer Global Modelling Consortium (ccgmc.org) to simulate different scenarios of disruption and recovery strategies and predict both long-term outcomes of CRC cases and deaths as well as short-term and long-term costs and savings.
Impact related to

- Duration of disruption
- Participation during the recovery period
- Catch-up strategy
Modelling the impact of disruption

Modelling results are suggesting that screening interruptions

- would increase the number of late stage cancers.
- may have a higher impact in the older age groups

Policy makers are also interested in the screening capacity requested per restart strategy.
# Colorectal Cancer Screening in the Novel Coronavirus Disease-2019 Era

**Table 1. Proposed Indicators to Assess the Impact of the COVID-19 Pandemic on Screening and Outcomes for Colorectal Cancer**

<table>
<thead>
<tr>
<th>Process Indicators</th>
<th>Outcome Indicators</th>
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<tbody>
<tr>
<td>Percentage of delayed screening invitations (3-6, 6-12 months and ≥12 months)</td>
<td>Response rate to screening invitation</td>
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<tr>
<td>Positivity rate of FIT/gFOBT</td>
<td>Detection rate of CRC and advanced adenomas</td>
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<tr>
<td>Interval between positive FIT/gFOBT result and colonoscopy</td>
<td>Stage distribution of detected cancers</td>
</tr>
<tr>
<td>Proportion of refused/rescheduled appointments related to COVID-19</td>
<td>Interval cancer rate</td>
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<tr>
<td>Rate of SARS-CoV-2 infections associated with CRC screening and diagnostic follow-up</td>
<td>CRC-related mortality</td>
</tr>
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</table>

COVID-19, coronavirus disease-2019; CRC, colorectal cancer; FIT, fecal immunochemical test; gFOBT, guaiac fecal occult blood test.
Close monitoring of established early outcomes and short-term indicators of screening performance may provide

- input to inform and validate modelling and to assess the effect of measures implemented to restart programs and possibly increase the screening uptake

- information to estimate the long-term impact of the delay
Number of exams (2020/2019 January – May) 42% (range 67% - 0%) 3 months
Number of exams (2020/2019 January – September) 47% (range 81% - 6%) 4.7 months

967,465 exams (January - September)

- Missed cases (Delayed diagnosis)

CRC: 1168
Advanced adenomas: 6667
Monitoring screening during the COVID-19 emergency

The ICSN CRC interest group has designed a project, aimed to collect aggregated quantitative data about screening activity and outcomes, using a standardized data template, to calculate key indicators of activity and performance.

The project is part of a coordinated effort to monitor the impact of the pandemic emergency on screening, including:

- a survey aimed to collect qualitative information about the measures adopted by different programs in different jurisdictions to face the emergency and to eventually restart the programs,
Data collection

• Volume of activity: invitations and examinations
• Participation
• Screening tests results
• Compliance with colonoscopy assessment
• Waiting time for colonoscopy
• Screening outcomes
  • neoplasia yield
  • stage distribution of screen-detected CRCs
• Interval cancer rate
Data collection

Data are stratified by

- Sex
- Age
- Screening history

Collected for 2020 and for the corresponding period in 2019 or 2018 (reference year for comparison)

Data collection will be repeated using the same template to monitor the progression of screening activity and performance during the restarting phase
**Table 1: Population (Men+Women)**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Screening Interval</th>
<th>Screening Test</th>
<th>Annual Target Population</th>
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* Only enter applicable data here (‘Unknown’) that cannot be broken down by age group.
Table 3: Further assessment indication

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Preliminary results

6 programs provided data until now (Slovenia, Basque country, Barcelona, Piedmont Region, Northern Ireland, Czech Republic)

3 programs are expected to send data within one week

Waiting time and compliance with TC referral

2020 activity (% of 2019)
Preliminary results

% Stage III-IV SD CRCs

DR CRC and adenomas

2019 2020
Conclusions

**Barriers**

Data collection usually performed over the entire year

Screening staff still under pressure

**Achievements**

Quantitative data collection is feasible

Regular monitoring of the activity during the restarting phase can provide useful comparative information

- Examination coverage seems lower among older people
- Compliance with the TC assessment among FIT + subjects decreased
- Stage distribution of SD CRCs needs to be monitored
Thank you to

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Brownen McCurdy
Isabel Portillo Villares
Doug Puricelli-Perin
Stefano Rousset
Linda Rabeneck

The data providers

Thank you for your attention

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