Population-based Quality Indicators of Cancer Care: 
the QC3 pilot study

A. Bordoni
Bianchi-Galdi V, Spitale A, Mazzucchelli L 
Ticino Cancer Registry 
www.ti.ch/cancer
EUROCARE IV Survival Study
Colorectal cancer

Advantages

- **Standardised** procedure, world wide recognised
- Regional and international **comparisons**
- Diagnostic precocity, treatment quality and follow-up in one value

"Disadvantage"
Long follow-up time

Additional instruments are needed: quality indicators
Why quality indicators?

Advantages
- **Defragmentation** of survival determinants
- Short follow-up time

“Disadvantage”
Less worldwide defined → test

Diagnostic
First treatments

Additional treatments
Follow-up
Recurrence

2011 2012 2013 2014 2015………..
Aims of quality indicator cancer care study?

- To promote discussion on quality based on data
- To understand/realise if there is still room for additional increase of quality on cancer care
- To in deeper analyse at the regional level EUROCARE survival results
What is a quality indicator?

Resection margins

1. R0/R1
2. Proximal, distal, radial
3. Reported by pathologist
Survival according to the number of retrieved lymph nodes

Morris et al, JCO 2007
Other colorectal quality indicators...

- Proportion of patients with preoperative staging
- Proportion of patients with intestinal obstruction
- Proportion of patients with locally advanced rectal cancer undergoing neo-adjuvant radiotherapy±chemotherapy
- Proportion of patients with stage II high risk or stage III disease receiving adjuvant chemotherapy
- Proportion of patients with rectal cancer with sphincter preservation
Examples of colorectal quality indicators

Ticino, 2009-2010

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>COLON (n=303)</th>
<th>MINIMUM REQUIREMENT</th>
<th>TARGET REQUIREMENT</th>
<th>RECTUM (n=125)</th>
<th>MINIMUM REQUIREMENT</th>
<th>TARGET REQUIREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion of patients with <strong>microscopical confirmation</strong> of the tumour</td>
<td>96.7%</td>
<td>≥95%</td>
<td>95-100%</td>
<td>100%</td>
<td>≥95%</td>
<td>95-100%</td>
</tr>
<tr>
<td>Proportion of patients with <strong>defined tumour site</strong> in the biopsy / surgical resection according to WHO (all but NOS)</td>
<td>99.3%</td>
<td>≥95%</td>
<td>95-100%</td>
<td>89.6%</td>
<td>^</td>
<td>95-100%</td>
</tr>
<tr>
<td>Proportion of surgical patients with <strong>known resection margins</strong></td>
<td>96.2%</td>
<td>≥95%</td>
<td>95-100%</td>
<td>95.2%</td>
<td>≥95%</td>
<td>95-100%</td>
</tr>
<tr>
<td>Proportion of surgical patients with <strong>linadenectomy</strong></td>
<td>99.3%</td>
<td>^</td>
<td>^</td>
<td>96.4%</td>
<td>^</td>
<td>^</td>
</tr>
<tr>
<td>Proportion of surgical patients not undergoing neo-adjuvant therapy with <strong>more than 12 lymph nodes examined</strong></td>
<td>84.4%</td>
<td>≥80%</td>
<td>90-100%</td>
<td>84.1%</td>
<td>≥80%</td>
<td>90-100%</td>
</tr>
<tr>
<td><strong>Number of examined lymph nodes</strong> in surgical patients not undergoing neo-adjuvant therapy (mean±std, median)</td>
<td><strong>18.8±8.3</strong></td>
<td>≥12</td>
<td>≥12</td>
<td><strong>16.6±7.2</strong></td>
<td>≥12</td>
<td>≥12</td>
</tr>
</tbody>
</table>
Material and methods of the study

- All incident cases occurred in 2011-2013
- Colorectal, ovary, uterus, prostate and lung cancers (total 2000 cancer cases)

How are the indicators defined?

- According to the up-to-date literature
- Through existing guidelines (NCCI, ESMO, other)
How are the indicators defined?

- **Cancer Registry with a dedicated staff** (Bianchi-Galdi V, Spitale A, Bordoni A)

- **Working Group** (pathology, surgery, oncology, radiotherapy, urology, etc.....)

- **National and International Advisory Board**
  Ghielmini M, Martinoli S, Mazzucchelli L, Cavalli F, Goldirsch A, Faivre J, Paci E, ....and others to be contacted...
Delphy Process (ex. colo-rectal cancer)
Conclusion (I)

- Up-to-date quality indicators without waiting for survival data (ideally yearly produced)
- Aim is not to control doctors! Aim is to additionally stimulate the discussion based on data (cultural process) in order to identify the good quality and the lack of quality
Conclusion (II)

- The study is population-based (Cancer Registry, no selection bias) and concerns public and private settings, ensuring a real description. Results should be compared with other national and international initiatives (US and Holland).
- Long-term study, so permitting trend analysis of quality indicators and the evaluation of other cancer sites.
- Promote similar study in other region/cancer registry of Switzerland.
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