QUALITY INDICATORS FOR THE MANAGEMENT OF UPPER GI CANCER

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Background

Upper gastrointestinal cancer: oesophageal + gastric cancer

2010: > 2300 new cases in Belgium

High burden: 5-year relative survival

Guidelines 2012: Highly specialized care
Objectives

**Primary**
- Develop set of quality indicators
- Test measurability with available Belgian data

**Secondary**
- Measure the quality indicators
- Judge quality of care (national + hospital)

**Ultimate**
- Improve quality of care
# Selection process

<table>
<thead>
<tr>
<th>Sources</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2012 Guidelines: N=54</td>
<td>Literature: N=30</td>
</tr>
</tbody>
</table>

## Two-step selection

<table>
<thead>
<tr>
<th>Step 1: Relevance</th>
<th>Step 2: 3 Additional criteria</th>
</tr>
</thead>
</table>

## Final selection

| Oesophagus: N=15   | Stomach: N=14                |
Data sources

Coupled database 2004 - 2008

N = 5 813 oesophagus
+ N = 4 847 stomach

NISS/IMA

IMA

Cancer Registry

NISS/INSZ

Claims

Vital status
13 measurable indicators
Oesophagus: national

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Results 2004-2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staging CT</td>
<td>88.3%</td>
</tr>
<tr>
<td>Palliative support</td>
<td>44.0%</td>
</tr>
<tr>
<td>Treatment in high-volume centre</td>
<td>34.7%</td>
</tr>
<tr>
<td>30-day mortality</td>
<td>4.8%</td>
</tr>
<tr>
<td>Relative 5y survival</td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>21.7%</td>
</tr>
<tr>
<td>Women</td>
<td>21.6%</td>
</tr>
</tbody>
</table>
## 13 measurable indicators

Stomach: national

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Results 2004-2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staging CT</td>
<td>84.5%</td>
</tr>
<tr>
<td>Palliative support</td>
<td>44.0%</td>
</tr>
<tr>
<td>Palliative chemotherapy</td>
<td>42.0%</td>
</tr>
<tr>
<td>Treatment in high-volume centre</td>
<td>4.7%</td>
</tr>
<tr>
<td>30-day mortality</td>
<td>5.6%</td>
</tr>
<tr>
<td>Relative 5y survival</td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>28.4%</td>
</tr>
<tr>
<td>Women</td>
<td>31.4%</td>
</tr>
</tbody>
</table>
Variability of care
5-year relative survival: oesophagus
Volume and outcome

- No centralisation between 2004 and 2008
- Differences in case-mix according to volume
- Clear volume-outcome relation
- No explanation provided by process indicators
Unknown cancer stage

- Oesophagus: 28.9%
- Stomach: 34.9%
- Reporting variability across centres → volume for oesophageal cancer
5 indicators not useable

Disparate administrative data

• Multidisciplinary oncologic consultation (both cancer types)

Disparate definitions

• Neoadjuvant treatment (both cancer types)
• Primary chemoradiotherapy (oesophagus)
Strengths & limitations

STRENGTHS
• Population-based study
• Validation by 6 hospitals

LIMITATIONS
• Missing information: 11 indicators not measurable
• Co-morbidity, socio-economic status
• Unknown stage
Recommendations (1)

To the Minister of Public Health

- **Quality system**
  - Individual feedback
  - Quality improvement

- **Centralisation**
  - Results of report form basis for discussion

- **MOC/COM**
  - Reimbursement conditional on compulsory registration of cancer stage and essential predefined variables
Recommendations (2)
To the Belgian Cancer Registry

MOC/COM registration
- Intention of treatment
- Co-morbidity
- Recurrence
- Lymph node status
- Resection margins

Volume-outcome relation
- Should be further explored
- Take into account co-morbidity
Recommendations (3)
To the health care providers

Evaluate
- Evaluate individual results
- Compare
- Engage in quality improvement process

Define
- Locally-advanced cancer
- Indications for neoadjuvant treatment and primary chemoradiotherapy
- Target values
Colophon from KCE reports 200

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