Development of Quality Indicators based on clinical practice guidelines: An example with the process of care in breast-cancer

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Abstract submission #2414
COMPAQH Project

• COordination for Measuring Performance and Assuring Quality in Hospitals
• Coordinated by the French National Institute for Medical Research
• Supported by The French Ministry of Health and the French national authority for health

– To develop Quality Indicators (QI), evaluate their metrological performance and make recommendations for their nationwide implementation once validated
– To establish effective ways of using quality indicators
Steps in development of QIs

1. Selection
   - Experts
   - Guideline

2. Development
   - Understanding
   - Organization
   - Implication
   - Data availability

3. Test 1 Feasibility
   - Experts
   - Guideline

4. Update
   - Inter-observer reliability
   - Relevance

5. Test 2 Metrological Quality
   - Guidelines

6. Validation

7. Implementation nationwide
   - Health authorities
Breast Cancer

- Objective
  - To measure the process of care in breast cancer patients

- First test (2008), 23 hospitals
  - Satisfying results
  - Updating

- Second test (2009), 60 hospitals
QIs – Criteria selection

- 4 QIs representative of 4 time periods
  - French Guidelines
  - 1st surgeon consultation 21 days
  - 1st surgery 14 days
  - MRM post-surgery 14 days
  - Post-surgery consultation
  - 1st adjuvant treatment

- 3 QIs evaluating organization
  - Patient’s information before surgery
  - Multidisciplinary Review Meeting (MRM)
  - Mandatory prognosis specified in medical records
Population

• Women with non-inflammatory non-metastatic invasive breast cancer

Sample analysis

• Retrospective analysis of 80 RANDOMLY selected patient records for each hospital involved
Study design

60 volunteer hospitals

- 28 publics
- 20 cancer centers
- 12 private

3714 medical records audited

Selection  Development  Test 1 Feasibility  Update  Test 2 Metrological Quality  Validation  Implementation nationwide
## National scores in 2008

<table>
<thead>
<tr>
<th>Proportion of patients...</th>
<th>N</th>
<th>Min %</th>
<th>Mean %</th>
<th>Max %</th>
</tr>
</thead>
<tbody>
<tr>
<td>QI1 operated within 21 days after first surgeon consultation</td>
<td>49</td>
<td>17.4</td>
<td>58.2</td>
<td>90.9</td>
</tr>
<tr>
<td>QI2 who have benefited MRM (Multidisciplinary Review Meetings) within 14 days after surgery</td>
<td>47</td>
<td>1.4</td>
<td>60.4</td>
<td>98.7</td>
</tr>
<tr>
<td>QI3 with a post-surgery consultation within 14 days after MRM</td>
<td>39</td>
<td>26.5</td>
<td>84.5</td>
<td>100</td>
</tr>
<tr>
<td>QI4 who received first adjuvant treatment within 30 days after surgery for chemotherapy and within 56 days for radiotherapy</td>
<td>39</td>
<td>11.2</td>
<td>47.5</td>
<td>91.5</td>
</tr>
<tr>
<td>QI5 who received a complete information before surgery</td>
<td>54</td>
<td>0</td>
<td>12.8</td>
<td>100</td>
</tr>
<tr>
<td>QI6 where mandatory prognostic factors are specified in medical records</td>
<td>54</td>
<td>4</td>
<td>70.3</td>
<td>98.7</td>
</tr>
<tr>
<td>QI7 whose case is submitted to a well organized MRM</td>
<td>39</td>
<td>0</td>
<td>46</td>
<td>100</td>
</tr>
</tbody>
</table>
QI1 Results

Proportion of patients operated within 21 days after 1st surgeon consultation

Hospitals

Cl 99%
Mean
Cl 90%
QIs Quality assessment

- Inter-hospital variability was satisfactory
- Large variation in practice observed on the 7 QIs
  ➔ Encourage hospitals to promote quality improvement policies

- Exclusion 22%
- Data accessibility
  ➔ Update ++
Conclusions

• QIs have good global metrological quality
• But actually national implementation is hard

Perspective

• To analyze availability of data to develop others QIs, for example the time between screening and the end of treatment
‘THE GOOD NEWS IS, THERE’S ROOM FOR IMPROVEMENT.’
Author conflict of interest

- No conflict of interest