OECD PROJECT "Medical Practice Variations"
SPAIN draft

Draft – subject to revisions

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INTRODUCTION

DEMOGRAPHY
2010 population -> 46.07 million
17 Autonomous Communities -> 50 provinces
two autonomous cities

Population density

% population

- >2,5M: 25%
- 1M-2,5M: 30%
- 500.001-1M: 28%
- 250.000-500000: 4%
- <250.000: 13%
HEALTH SYSTEM

- universal coverage
- funded by public taxes
- healthcare organization is transferred to the autonomous communities
QUALITY POLICY


Quality Agency of the National Health System

Quality Plan for the National Health System
• Minimum data set of public hospitals
• Activity Information System of Specialized Health Care Centers

Procedures:
  – Caesarean section
  – Revascularization procedures:
    • Coronary bypass
    • PTCA
    • Coronariography
  – Knee interventions
  – Surgery after hip fracture
RESULTS:
Caesarean section

Context

Quality strategies

✓ Observatory of Women's Health:
  - "Strategy of normal birth care in the National Health System"
  - Project "Clinical standards for the adequacy of cesarean section"

✓ Spanish society of Gynecology and Obstetrics (SEGO):
  - Protocol of caesarean section
  - Protocol of vaginal delivery after cesarea

Analysis of variation

✓ Atlas-VPM group:
  - Variations in the use of risk-adjusted cesarean obstetrical acute hospitals national health system
RESULTS: Caesarean section

Results

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2005</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private hospitals</td>
<td>30.08%</td>
<td>36.44%</td>
<td>37.91%</td>
</tr>
<tr>
<td>Public hospitals</td>
<td>19.51%</td>
<td>22.26%</td>
<td>22.12%</td>
</tr>
</tbody>
</table>

% total deliveries

![Graph showing Caesarean section results by region and type of hospital for years 2000, 2005, and 2010. The x-axis represents different regions, and the y-axis represents numbers of deliveries. The graph is color-coded to differentiate between public (blue) and private (red) hospitals.](image-url)
RESULTS:
Caesarean section

**Caesarean sections - Age standardized rate per 1000 live births**

<table>
<thead>
<tr>
<th>Year</th>
<th>C. variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>0.27</td>
</tr>
<tr>
<td>2005</td>
<td>0.30</td>
</tr>
<tr>
<td>2010</td>
<td>0.32</td>
</tr>
</tbody>
</table>
Results in the cesarean rate in the project “Clinical standards for the adequacy of cesarean section”
RESULTS: Revascularisation procedures

Context

Quality strategies

✓ Quality Plan for the Spanish National Health System:
  ▪ “Strategy of Ischaemic Heart Disease”

✓ Spanish society of Cardiology (SEC):
  ▪ *Clinical guideline on coronary surgery*
  ▪ Working Group of the European Society of Cardiology for coronary intervention
  ▪ Working Group of Myocardial Revascularization of the European Society of Cardiology

Analysis of variation

✓ Atlas-VPM group:
  ▪ “*Variations in admissions for cardiovascular problems and cardiovascular procedures in the National Health System*”
RESULTS:
Revascularisation procedures

Coronary bypass/CABG

Cardiovascular surgical units (2000 vs 2010)
RESULTS:
Revascularisation procedures

Coronary bypass/CABG

Coronary bypass (age-and-gender standardized rates). Provinces with cardiovascular units.
RESULTS:
Revascularisation procedures

PTCA

Cath labs (2000 vs 2010)
RESULTS:
Revascularisation procedures

PTCA

Inpatients PTCA (age-and-gender standardised rates)
RESULTS:
Revascularisation procedures

Coronariography (in patients)

*Catheterisation (age-and-gender standardized rates)*
## RESULTS:
Revascularisation procedures

### Coefficient of variation

<table>
<thead>
<tr>
<th>Procedure</th>
<th>2000</th>
<th>2005</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bypass (units)</td>
<td>0.58</td>
<td>0.59</td>
<td>0.63</td>
</tr>
<tr>
<td>Bypass (provinces)</td>
<td>0.47</td>
<td>0.44</td>
<td>0.49</td>
</tr>
<tr>
<td>PTCA (units)</td>
<td>0.89</td>
<td>0.54</td>
<td>0.38</td>
</tr>
<tr>
<td>Coronariography (units)</td>
<td>0.67</td>
<td>0.56</td>
<td>0.67</td>
</tr>
</tbody>
</table>
RESULTS:
Knee interventions

Context

Analysis of variation

• No National Strategy
• No clinical guidelines at National Society level

Studies:

Atlas-VPM group:
  • “Variations in orthopedics surgery in the NHS”
RESULTS:
Knee interventions

Knee replacement

Knee replacement (age-and-gender standardized rates)

C. variation

<table>
<thead>
<tr>
<th>2000</th>
<th>2005</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.36</td>
<td>0.42</td>
<td>0.33</td>
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</tbody>
</table>
Knee arthroscopy (inpatients)

Arthroscopy (age-and-gender standardized rates).

C. variation

<table>
<thead>
<tr>
<th>2000</th>
<th>2005</th>
<th>2010</th>
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<tbody>
<tr>
<td>0.66</td>
<td>0.53</td>
<td>0.49</td>
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</tbody>
</table>
RESULTS:
Surgery after hip fracture

Surgery after hip fracture (age-and-gender standardized rates)

C. variation

<table>
<thead>
<tr>
<th></th>
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<th>2010</th>
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<tbody>
<tr>
<td></td>
<td>0.25</td>
<td>0.22</td>
<td>0.19</td>
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</table>
CONCLUSIONS

• Cesarean section rate has been increasing in the last years with a high variability among provinces. This procedure has been involved in a specific health strategy and it appears to stabilize.
• Variations in coronary bypass should need further analysis. It is a complex procedure usually performed to high requirements patients. And it should be considered the transfers between hospitals or units of reference for particular cases.
• It is necessary to highlight the scientific societies role for the dissemination of the procedures results and the best practices.
• it is very important the authorities role leading the analysis of the territorial differences and implement projects to rectify inadequate practices.
Thank you