Highly variable and complex care

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HIGHLY VARIABLE AND COMPLEX CARE

- Definition
- Outcome of hospital care
- Role of AMC
VARIABILITY OF CARE

APR-DRG 228:
Inguinal, femoral & Umbilical Hernia Procedures

Qcod = coefficient of quartile dispersion
\((Q3-Q1)/(Q3+Q1)\)

Devriese ea, KCE report 2016
Towards lump sum financing for low variability care?
Variable definitions in literature:

- Patients undergoing highly complex interventions:
  *eg* pancreatic, esophageal or thoracic oncological surgery

  versus

- Complex care patients:
  *eg* elderly patient with multiple chronic conditions and dementia
HIGHER AND COMPLEX CARE

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ASSOCIATION BETWEEN TEACHING STATUS AND MORTALITY IN US HOSPITALS

<table>
<thead>
<tr>
<th>30-d mortality (%)</th>
<th>Major teaching</th>
<th>Minor teaching</th>
<th>Nonteaching</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>All hospitalisations</td>
<td>8.3</td>
<td>9.2</td>
<td>9.5</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Medical conditions</td>
<td>11.0</td>
<td>11.6</td>
<td>11.9</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Surgical procedures</td>
<td>3.3</td>
<td>3.8</td>
<td>4.0</td>
<td>&lt; 0.001</td>
</tr>
</tbody>
</table>

Burke ea, JAMA 2017;317:2105-2113
BEYOND VOLUME: DOES HOSPITAL COMPLEXITY MATTER?

McCrum ea, Medical Care 2014; 52: 235-242
Effect of increasing hospital complexity on mortality rates at low- and high-volume hospitals

McCrum ea, Medical Care 2014; 52: 235-242
COMPARISON OF HOSPITAL MORTALITY AND READMISSION RATES FOR MEDICARE PATIENTS TREATED BY MALE VS FEMALE PHYSICIANS

Tsugawa ea, JAMA Intern Med 2017; 177: 206-213
OUTCOME OF HOSPITAL CARE

Major determinants?

- Multidisciplinary approach
  Importance of physician contracts (salary-based)?

- Degree of surgical team (sub-)specialisation

- Implementation of innovations

- Adherence to EBM / scientific guidelines
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ROLE OF AMC IN HEALTH CARE ORGANISATION

- To fulfill requirements for high-quality in-hospital care for complex patients
  
  Importance of scale
  
  => Central position in « hub and spoke » hospital landscape

- To fulfill requirements for a high-quality approach to complex care patients
  
  Leading role in development of integrated patient centered care models for chronic conditions