A Medical View Across Borders

Ralf Kuhlen, MD, PhD – CMO Helios Health
The Best of Both Worlds

- Outpatient services
- Procurement
- Outsourcing cooperations
- Standardization
- Outpatient services
- Laboratory
- Quality
- Peer- & Management-Reviews
- Clustering

Benefits:
- LOS
- Service-App
- Short waiting times
- Process
- Outcomes
Key Take-Aways

• Helios has a patient-centered vision
• Spanish health care system has excellent quality while being very efficient
• Medicine has no borders – good medicine has
• Good medicine and economic success fit together
Our Patient Centered Vision

Patient diagnosis completed
- All data available
- Treatment options illustrated
- All questions answered
- Decisions taken and documented

Enhanced recovery protocols
- No unnecessary immobilization
- Modern minimal invasive techniques
- Risk – and complication management

Hospital stay
follows a structured treatment plan
- Steps and timelines shared with patient before admission
- No waiting times!

Discharge
and further treatment are planned in advance
- All steps, appointments and timelines shared with patient
- Patient data are shared, no information is lost

Sectorial separation of health care

Patients expectations

Traditions Attitude

Sectorial separation of health care
Evidence-Based Medicine (EBM) – a Global Standard for Patient-Centered Care

Assess your patient

**1.** Ask the right clinical questions

**2.** Obtain the best evidence

**3.** Appraise the evidence

**4.** Apply evidence to patient care

**5.** Assess your patient

EBM

Clinical Expertise

Best Evidence

Patient Values
Quality First!

Acute myocardial infarction (AMI)

<table>
<thead>
<tr>
<th>Year</th>
<th>AMI Germany</th>
<th>AMI Helios</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>2009</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>2010</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>2011</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>2012</td>
<td>4</td>
<td>2</td>
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<tr>
<td>2013</td>
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<td>2014</td>
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<td>2015</td>
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<td>0</td>
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<tr>
<td>2016</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2017</td>
<td>0</td>
<td>0</td>
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</table>

Standardized mortality ratio (SMR)

- Acute myocardial infarction (AMI): 0.72
- Heart failure: 0.58
- Cerebral infarction: 0.83
- Pneumonia: 0.64

German average: 1.0

Capital Markets Day | Fresenius Helios 2018 | 8 June 2018
Peer Review
Proven Success in Germany!

Cumulative mortality effect peer reviews

SMR before: 1.45
SMR after: 0.97

Capital Markets Day | Fresenius Helios 2018 | 8 June 2018
Two Standard Quality Management Cycles

- Sentinel Event
- Identify the Problem
- Continuous Monitoring

Act → Plan → Check → Do

How do we provide care?

What do we do (or fail to do)?

- Structure
- Process
- Outcome

Our results...

Source: Donabedian, USA, 1960's
Days Spent as Inpatient Every Year?

<table>
<thead>
<tr>
<th>Germany</th>
<th>Spain</th>
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<tbody>
<tr>
<td>1.8</td>
<td>0.9</td>
</tr>
<tr>
<td>0.7</td>
<td>0.6</td>
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Health Care Utilization across Borders

### Hospital discharges, 2015 (or nearest year)

<table>
<thead>
<tr>
<th>Country</th>
<th>Hospital Discharges per 1,000 population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>256</td>
</tr>
<tr>
<td>Germany</td>
<td>255</td>
</tr>
<tr>
<td>France</td>
<td>184</td>
</tr>
<tr>
<td>Norway</td>
<td>164</td>
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<tr>
<td>OECD35</td>
<td>156</td>
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<tr>
<td>USA</td>
<td>126</td>
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<td>Japan</td>
<td>124</td>
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<tr>
<td>Spain</td>
<td>114</td>
</tr>
<tr>
<td>Canada</td>
<td>84</td>
</tr>
<tr>
<td>Brazil</td>
<td>55</td>
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Per 1,000 population

300

200

100

256

255

184

164

156

126

124

114

84

55
Factors to Compare Health Care Systems

Health status

Health care system
- Access
- Quality
- Expenditure & financing
- Health care resources
- Sectorial structure

Risk factors

Epidemiologic, demographic, economic, social and cultural context
OECD Comparison on Health Status

**Health Status Germany:**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Bottom Performer</th>
<th>Top Performer</th>
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<tr>
<td>Life expectancy (male)</td>
<td>69.7</td>
<td>81.2</td>
</tr>
<tr>
<td>Life expectancy (female)</td>
<td>77.7</td>
<td>87.1</td>
</tr>
<tr>
<td>Life expectancy at age 65</td>
<td>16.4</td>
<td>21.9</td>
</tr>
<tr>
<td>Ischaemic mortality</td>
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<td>34.1</td>
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Source: OECD Health Statistics
OECD Comparison on Health Care Resources

Health care resources Germany:

<table>
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<th>Category</th>
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<th>Highest</th>
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<tbody>
<tr>
<td>Health care expenditure</td>
<td>1,080</td>
<td>9,892.0</td>
</tr>
<tr>
<td>Doctors per capita</td>
<td>1.8</td>
<td>6.3</td>
</tr>
<tr>
<td>Nurses per capita</td>
<td>2.0</td>
<td>18.0</td>
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<tr>
<td>Beds per capita</td>
<td>1.5</td>
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Source: OECD Health Statistics
Different Health Care Systems – Different Efficiencies

Source: OECD Health Statistics
Process – the LOS as an Indicator

Average LOS in hospital, 2000 and 2015 (or nearest year)

Source: OECD Health Statistics
Examples for LOS Differences

- Acute care
- Cholecystectomy
- Hip replacement
- Knee replacement
- TUR prostate
- Tonsillectomy

Quriónsalud
Helios
Medicine Aware of its Borders and Limits?

The WHO Health Systems Framework

System building blocks
- Leadership / governance
- Health care financing
- Health workforce
- Medical products, technologies
- Information and research
- Service delivery

Goals / outcomes
- Improved health (level and equity)
- Responsiveness
- Financial risk protection
- Improved efficiency

1. Good market access
2. Qualified and specialized doctors and care takers
3. Efficient processes
4. Infrastructure and financing
5. Controlling and readjustment
Thank you