Schön Klinik Germany – VBHC in de praktijk

Zeist, November 13th 2017
Our company in numbers

Founding year: 1985
Locations: 21 sites in Germany
2 sites in England

Treatment spectrum:
88% acute medicine
12% rehabilitation

Employees: ca. 9,800

Patients: ca. 300,000 p.a.

Revenue: 797 Mio. EUR

Principal owner: Family Dieter Schön

Our quality promise

Schön Klinik.
Measurable.
Tangible.
Better.
Schön is a specialist hospital operator with a clear focus on three medical specialties
Share of revenue in % (2016)

<table>
<thead>
<tr>
<th>Medical Specialty</th>
<th>Number of locations</th>
<th>Market Positioning</th>
<th>Case Number of the Top Indications</th>
</tr>
</thead>
</table>
| Neurology         | 5                   | #1 in complex neurology in Germany  
• #1 in early rehab in Munich, Upper Bavaria and Hamburg  
• #1 in Parkinson in Southern Germany | • >3.900 Neurological rehab cases  
• >2.100 Parkinson treatments as well as treatment of motoric disorders |
| Mental health     | 9                   | #1 in Germany for inpatient behavioural health treatment | • >5.600 Depressions  
• >1.600 Eating disorders  
• > 980 Tinnitus |
| Orthopaedics      | 8                   | #1 in spine treatments in Bavaria  
• #2 in the treatment of knee, hip and shoulder in the North of Germany  
• Top 5 in the treatment of knee, hip and shoulder in Bavaria | • >5.000 Hip surgeries  
• >3.600 Knee surgeries  
• > 6.700 Spinal surgeries |
Defining, measuring and exercising quality measures is part of our DNA

Key facts about our quality measurement...

- **33** Expert groups
- **189** Medical conditions
- **3,856** Indicators
- **> 44,800** Feedback-forms
- **> 1,100,000** Measured data points

... which is considered leading

**Quality measurement**
Prof. Michael E. Porter

Schön Klinik is playing a **leading role** in the use of clinical data for a fully measurement of result quality

**Integrated Practice Unit**
HBS-study case about Schön Klinik
Our quality agenda represents the core elements of the Schön Klinik quality management system

Schön Klinik’s Quality Agenda

- Best-in-class qualifications
- Quality standards far beyond regulatory requirements
- Over 3,500 indicators constantly measure treatment quality
- Unique data pool by gathering treatment data for more than 10 years
- Quality Report for patients and experts published annually

References

- Schön and Prof. Michael Porter of Harvard Business School have collaborated over many years
- Harvard Business School and Prof. Michael Porter commend Schön as a role model and pioneer for their unique quality measurement system

Source: Harvard Business School case study’s

„The report is an instrument to create a quality culture … everyone working for Schön knows that measurable quality is the most important strategic aspect of what we are doing“ (HBS Case Study)
MedQEX and CompCards form our overall quality assurance framework\(^1\)

\(^1\) MedQEX and CompCards are proprietary Schön Klinik tools
Outcome measurement is focused on patients' needs and ideally takes place along the patient journey.

PROMs are disease specific and measured over several points of time:

<table>
<thead>
<tr>
<th>phase</th>
<th>measures</th>
</tr>
</thead>
</table>
| before surgery       | • Indication for surgery
                      | • Quality of Life (EQ-5D)                                                |
|                      | • Functions of Daily Living (WOMAC)                                       |
| at discharge         | • Early outcome and national quality indicators e.g. (mortality, complications, infections, etc.) |
|                      | • Process indicators e.g. early mobilisation                             |
| at admission rehab   | • Functions – physician-based (“Staffelstein Score”)                     |
|                      | • Patient satisfaction                                                   |
| at discharge rehab   | • Functions – physician-based (Staffelstein Score)                       |
|                      | • Patient satisfaction                                                   |
| after 3 and 12 months| • Quality of Life (EQ-5D)                                                |
|                      | • Functions of Daily Living (WOMAC)                                       |

Outcome measures:

- **EQ-5D**
  - 0 20 40 60 80 100

- **WOMAC**
  - 0 20 40 60 80 100

- **Patient satisfaction**
  - 60 85 90 95 100

- **PäGa**
  - Weiterempfehlung
  - med. Behandlung
  - Betreuung
  - Information
Standards help Schön Klinik to develop the same high quality and cost effective care across hospitals

Example 1: Algorithm for medical indication for hip surgery applied in >97% of cases

27 combinations of pain (NRS), radiological diagnosis (Kellgren & Lawrence score) and functionality resulting in a recommendation
• for surgery
• against surgery
• for further diagnostics and evaluation

Example 2: Criteria for hip prosthesis based on patient age to ensure cost efficiency
Our approach drives tangible results for our patients and our employees
Example: Ratio of blood transfusions after hip replacement

### Ratio of blood transfusions after hip replacement\(^1\) (in %)

<table>
<thead>
<tr>
<th>Year</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>16.7</td>
</tr>
<tr>
<td>2012</td>
<td>10.4</td>
</tr>
<tr>
<td>2013</td>
<td>4.5</td>
</tr>
<tr>
<td>2014</td>
<td>4.4</td>
</tr>
<tr>
<td>2015</td>
<td>1.3</td>
</tr>
</tbody>
</table>

**International reference\(^2\)**: 22.2

### Measures
- Introduction of several blood saving treatment methods as part of the ENDO AKTIV\(^\circledR\) program (2012)
  - E.g. hemostasis during surgery, tranexamic acid etc.
  - Strict and clear transfusion criteria across all hospitals

### Value
- **For patients:**
  - Less complications, fast regeneration after surgery
- **For Schön Klinik:**
  - Reduced complexity and less interventions and treatments

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1 Schön Klinik Munich Harlaching, approx. 1,000 cases
Schön continuously invests in medical technology to improve medical results using the Value based healthcare approach as our decision framework

Overview of innovative medtech and therapy equipment

**Overview of exemplary equipment**

![Image 1](image1.png)  ![Image 2](image2.png)

**Key features**

- Schön invests continuously in state-of-the-art surgery equipment, e.g. surgery robotics like ROSA for neurosurgery. Most of the spine surgery teams are assisted by navigation systems
  › Average spend for medtech over the last 5 years was ca. EUR 15-20m
- Latest developments are followed closely and applied consistently
  › Often partnerships with providers are arranged for pilot testings
- Investments are approved by a dedicated “innovations board”, where both medical and economic aspects are evaluated
- The innovations board convenes on a regular basis to review prospective innovations and their potential benefits to both patients and medical staff using the Value based healthcare approach as our decision framework