“How ABF changed clinical practice in Germany”

2015 Activity-Based Funding Conference

Dublin 28th of May 2015
Dr. Frank Heimig, CEO InEK GmbH
(National Institute for Renumeration in Hospitals)
## German Hospital Sector

### Performance Figures, 2013

- **↓ 1.996 hospitals** (40.531 inhab. per hospital)
- **↓ 500.671 hospital beds** (6.19 beds per 1.000 inhab.)
- **↑ 164.720 hospital doctors** (491 inhab. per hospital physician)
- **↑ 316.275 nurses** (256 inhab. per nurse or 54 patients per nurse)
- **↑ 18.8 Million hospital in-patient discharges**
- **↓ Length of stay (LOS) 7.5 (incl. psychiatry), acute care 6.3**
### Health Care: Structures and Financing

Subject to casemix

#### Hospital Care
- **Inpatient treatment**
- **Pre-/post-inpatient treatment**
- **Daycare**
- **Ambulatory surgery (excl. drugs)**

#### Ambulatory Care
- **General practitioners**
- **Specialists**
- **Ambulant private physicians**

#### State
- **Federal Level**
  - Legal frame
- **Länder Level**
  - Hosp. planning
  - Investm. budget

#### Insurances
- **Statutory Health Insurance**
  - (coverage of 90% of the population)
- **Private Health Insurance**
  - (coverage of 10% of the population)

**Patient treatment**

**Investment costs**

**Treatment costs**
### Tasks and Responsibilities of InEK

#### Responsibilities

<table>
<thead>
<tr>
<th>Operating Costs</th>
<th>G-DRG-System</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Somatic Services</strong></td>
<td></td>
</tr>
<tr>
<td>ab. 60 Bill. € p.a.</td>
<td></td>
</tr>
<tr>
<td>ab. 18,0 Mio. cases p.a.</td>
<td>about 1,600 Hospitals</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operating Costs</th>
<th>PSY-Payment-System</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Psychiatrie/Psychotherapie</strong></td>
<td></td>
</tr>
<tr>
<td>ab. 6 Bill. € p.a.</td>
<td></td>
</tr>
<tr>
<td>ab. 1,0 Mio. cases p.a.</td>
<td>about 500 Institutions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Capital Costs</th>
<th>Investment-w</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ab. 3,5 Bill. € p.a.</td>
<td></td>
</tr>
</tbody>
</table>

Other tasks (Organ Donor lump-sum, cost training / nursing)

#### Responsibility / Implementation

InEK + contraction-partners on federal level

Fed. Rep./ States
Casemix Management: InEK - German DRG Institute

InEK GmbH – Institut für das Entgeltsystem im Krankenhaus – is the German DRG institute.

InEK supports the contracting parties for hospital care “Selbstverwaltung” (Self-Administration) with the introduction and continued development of the DRG systems based on Section 17 b Krankenhausfinanzierungsgesetz (KHG - Hospital Financing Legislation).

The Associations of Statutory Health Insurances, the Association of Private Health Insurance and the German Hospital Association are shareholders of InEK.
Why Use the DRG Reimbursement System?
Criteria Considered for the Implementation

- Appropriation according to expenses. “Payment should be based on services rendered”
- Avoidance of false incentives, primarily the incentive for keeping patients too long in hospital
- Comparability of hospital services
- Competition between care providers
Targets of the G-DRG-Implementation

More transparency, efficiency, quality

- Improved internal and external comparability of inpatient services
- Improved performance-oriented reimbursement, better allocation of financial resources
- Utilisation of additional profitability reserves (LOS, optimisation of operational and organisational structure)

but: a decrease of hospital expenditures was no realistic target
Schedule for implementation of DRG

- DRG Implementation Start!
- Budget Neutrality
- Convergence Phase

Optional Year:
- 2003
- 2004
- 2005
- 2006
- 2007
- 2008
- 2009
### DRG remuneration

#### Case level

Cost weight  \( x \) Baserate  = DRG Revenue

**Example:** Appendectomy DRG G23C (G-DRG Version 2015)

<table>
<thead>
<tr>
<th>Cost weight</th>
<th>Baserate</th>
<th>DRG Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.802</td>
<td>3.231,2 €</td>
<td>2.591,42 €</td>
</tr>
</tbody>
</table>

#### Hospital level

Casemix  \( x \) Baserate  = DRG Budget

CMI  \( x \) Number of cases  = DRG Budget

(CaseMixIndex)
Data Submission by Hospitals

Morbidity and performance data, mandatory by all hospitals

G-DRG V 2015: 1574 hospitals, 18.0 Mio. cases

Hospitals participating in cost data collection (voluntary, per case funding given)

G-DRG V 2015: 252 hospitals, 4.1 Mio. cases

- DRG-Dataset in accord. with § 21 KHEntgG
- Cost data per case in accord. with costing standards
- Additional case related data (cost/performance data)
- Information on costing database and processes
“Structured Dialogue”
Integration of Medical and Other Expertise

Goals:
- Alternative path for data-driven development of classification
- Heightening awareness of problems in data analysis

Processing:
- Prioritisation based on potential for improvement of classification
- Implementation dependent on results of analysis

Participants:
- Scientific medical societies, professional associations, others
Proposal Method

Prospects of Success

- Concrete description of problem
- Concrete, feasible evidence for solutions/changes
- Availability of data
- The best solution in the entire system
- Number of cases insignificant
Adaptation of DRG-System

Data Collection
Evaluation
Validity

Data Year 2014  Development 2015  DRG-Catalogue

20013  2014  2015  2016
## DRG G18B, certain bowel-surgery / example

<table>
<thead>
<tr>
<th>cost matrix of DRG G18B, data year 2013, G-DRG system 2015</th>
<th>doctors</th>
<th>nursing staff</th>
<th>other medical staff</th>
<th>drugs</th>
<th>implants</th>
<th>medical devices</th>
<th>infrastructure</th>
<th>Σ cost center</th>
</tr>
</thead>
<tbody>
<tr>
<td>normal wards</td>
<td>499</td>
<td>822</td>
<td>46</td>
<td>87</td>
<td>0</td>
<td>97</td>
<td>1.012</td>
<td>2.562</td>
</tr>
<tr>
<td>ICU</td>
<td>161</td>
<td>335</td>
<td>4</td>
<td>46</td>
<td>0</td>
<td>52</td>
<td>221</td>
<td>819</td>
</tr>
<tr>
<td>dialysis</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>OR</td>
<td>572</td>
<td>0</td>
<td>402</td>
<td>19</td>
<td>4</td>
<td>746</td>
<td>520</td>
<td>2.264</td>
</tr>
<tr>
<td>anesthesia</td>
<td>371</td>
<td>0</td>
<td>238</td>
<td>22</td>
<td>0</td>
<td>72</td>
<td>143</td>
<td>846</td>
</tr>
<tr>
<td>delivery room</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>cardiology</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>endoscopy</td>
<td>27</td>
<td>0</td>
<td>27</td>
<td>1</td>
<td>0</td>
<td>16</td>
<td>30</td>
<td>102</td>
</tr>
<tr>
<td>radiology</td>
<td>37</td>
<td>0</td>
<td>42</td>
<td>1</td>
<td>0</td>
<td>42</td>
<td>44</td>
<td>165</td>
</tr>
<tr>
<td>laboratory</td>
<td>26</td>
<td>0</td>
<td>91</td>
<td>34</td>
<td>0</td>
<td>158</td>
<td>54</td>
<td>363</td>
</tr>
<tr>
<td>other</td>
<td>49</td>
<td>4</td>
<td>104</td>
<td>2</td>
<td>0</td>
<td>17</td>
<td>59</td>
<td>236</td>
</tr>
<tr>
<td>Σ cost type</td>
<td>1.743</td>
<td>1.161</td>
<td>956</td>
<td>212</td>
<td>5</td>
<td>1.201</td>
<td>2.083</td>
<td>7.360</td>
</tr>
</tbody>
</table>

| Σ cost "main service" | 3.215 € | Cost weight: 2,621 |
| main service in % of DRG | 44% | LOS (avg./days) 12,7 |
Key Elements

- Participation: Deregulation by Government; Self-Administration by payers and providers
- Data-driven development little “political lobbying”
- Competence-driven development by hospital-professionals
- Comprehensive approach: In-Patient; one-day care, innovations, all hospitals without exceptions
- Transparency of changes made and results
German DRG-System

G-DRG-Impact evaluation according to sec. 17b para. 8 Hospital Finance Act

Executive summary of the final report of the third research cycle (2008 to 2010)

March 2013

Analysis by order of the German Institute for the Hospital Remuneration System (InEK)
How ABF changed clinical practice in Germany

Speaker: Dr. Frank Heimig

Institut für das Entgeltsystem im Krankenhaus GmbH
The old world: budgeting system

Per-diem payment rate (related to department) budgeting-system had a key effect on hospital structure in Germany:

- High length-of-stay, high number of hospital beds
- No incentives to treat more patients more effectively in better quality
- Resulting in high level costs of hospital inpatient care at rapidly growing rate
- No sufficient transparency on hospital services, cost structures and treatment quality
Hospital remuneration by payors

Overall rules

- Same prices for all patients regardless of the payor
- Separate fees for „hotel“ services (e.g. 1-bed comfort room, television, meals…)
- Separate fees for personal medical treatment by head of department
- These rules applied for the budgeting system as well as for the implemented ABF-system
- No change of the structure of payors after implementation of the ABF-system
Core effects of an ABF-system

- The biggest change from budget systems to ABF-systems is transparency: Who does what, how often, at what cost and with what kind of results
- Description by DRG made services of hospitals describable and comparable and put a price / value on every service
- Hospitals are challenged to implement economically efficient processes and attract patients by offering high quality treatment / „in nice surroundings“
Medical staff in hospitals

Contractual obligations

- All medical staff including senior executives / heads of department are employed by the hospital and one hospital only

- Only a small number of heads of department are entitled to charge extra-fees for personally conducted medical treatment beside their obligations to the hospital

- Heads of department have to share a proportion of their separately earned fees for personal medical treatment with the hospital to compensate for the usage of facilities
Medical staff in hospitals

Objectives and incentives

- Internal budgeting (by department) refers to conducted services or casemix figures rather than patient numbers, bed-days or number of staff

- Almost all employment contracts of senior executives/heads of department include a performance-based payment component (i.e. related to casemix of dept. or profit margin)

- Nearly all heads of department have their income directly linked to the success of the hospital

- All medical staff is narrowly tied to the hospital and its overall success
**Strategic and operational challenges**

**Important fields of hospital management action**

Hospital executive management action provoked by the introduction of an ABF-system:

- Focussing on core medical service areas
- Establishment of external cooperations to gain additional medical expertise / better use of facilities
- Re-organization of internal processes to improve efficiency and quality
- High quality treatment as competitive advantage
- Outsourcing of services in secondary-medical or non-medical areas
Medical staff in hospitals

Efficiency and quality as core success factors

- In a competitive environment the hospital’s success depends on economic efficiency and medical quality
- Overall rule: treat more patients, economically effective and with better quality
- Beside medical expertise executive medical staff needs a sufficient economic understanding
- Executive medical staff takes a prominent role in shaping organizational and operational structures
Medical staff in hospitals
Efficiency and quality as core success factors

Management action led by executive medical staff to address the operational requirements of an ABF-system:

- Establish medical pathways to ensure a standardised high quality treatment
- Combine quality with economic efficient resource input and optimize the „patient-oriented work-flow“
- Align the services of nursing, technical staff and doctors
- Cooperate as interdisciplinary medical team with other departments or hospitals
Number of cases, hospitals, caredays and LOS
Development of the number of hospitals

Number of hospitals

- 2300
- 2250
- 2200
- 2150
- 2100
- 2050
- 2000
- 1950
- 1900
- 1850

Development Length of Stay and Days until OP
Inguinal Hernia (OPS 5-530)
Development Length of Stay and Days until OP
Hip Arthroplasty (OPS 5-850 and PDX M16)

Datenbasis: vollstationäre DRG-Daten gem. § 21 KHEntgG

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Development Length of Stay and Days until OP
Lap. Cholecystectomy (OPS 5-511.1)
Development Length of Stay and Days until OP
Large Bowel Surgery (OPS 5-455 / 5-456 / 5-458)

Data status 2014: 02.05.15

Datenbasis: vollstationäre DRG-Daten gem. § 21 KHEntgG
### Change of operational structures

- Increase of IT-support for workflow (coding software, operating theatre documentation, electronic documentation in general)
- Cooperation between departments (interdisciplinary wards, interdisciplinary casualty admission, consiliary services, training of doctors, Centers (e.g. breast-, tumor-, stroke-centers))
- Cooperation with Rehabilitation- or Care-Providers
- Patient treatment is more and more following medical pathways / SOPs
Economic considerations in treatment planning

- Cost transparency leads to economical awareness in the use of resources
- Prescription of diagnostic services
  - i.e. laboratory examinations
  - i.e. imaging services
- Standardized drug / devices regimes, limitations in selection
### Extent of changes to operational structures for selected areas (2004-2010)

<table>
<thead>
<tr>
<th>Extent of changes</th>
<th>Changes of operational structures relating to...</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Advanced interdisciplinary cooperation</td>
<td>04-06</td>
<td>06-08</td>
<td>08-10</td>
<td>04-06</td>
<td>06-08</td>
<td>08-10</td>
<td>04-06</td>
<td>06-08</td>
<td>08-10</td>
<td>04-06</td>
</tr>
<tr>
<td>Comprehensive (entire hospital)</td>
<td></td>
<td>24%</td>
<td>26%</td>
<td>28%</td>
<td>58%</td>
<td>47%</td>
<td>40%</td>
<td>54%</td>
<td>54%</td>
<td>39%</td>
<td>6%</td>
</tr>
<tr>
<td>Partial (individual areas of the hospital)</td>
<td></td>
<td>57%</td>
<td>59%</td>
<td>57%</td>
<td>33%</td>
<td>39%</td>
<td>46%</td>
<td>37%</td>
<td>32%</td>
<td>46%</td>
<td>37%</td>
</tr>
<tr>
<td>Small</td>
<td></td>
<td>19%</td>
<td>15%</td>
<td>15%</td>
<td>9%</td>
<td>14%</td>
<td>14%</td>
<td>10%</td>
<td>14%</td>
<td>15%</td>
<td>58%</td>
</tr>
<tr>
<td><strong>Number of hospitals</strong></td>
<td></td>
<td>368</td>
<td>312</td>
<td>231</td>
<td>393</td>
<td>333</td>
<td>243</td>
<td>388</td>
<td>332</td>
<td>228</td>
<td>346</td>
</tr>
</tbody>
</table>

Source: IGES; Hospital survey
Change of operational structures

New Jobs I

- „Operation Room Coordinator“ (very often senior experienced surgeon to plan, coordinate use of most expensive facility in hospital, scheduling, increase efficiency, reduce „empty-phases“)

- Quality Manager (very often qualified specialist doctor plus training in quality management, collection and preparation of internal and external quality data, organizes hospital / departmental quality conference)

- Medical Controller and Documentation Assistants (doctors and nurses to translate clinical data to billing data, handle claims with insurers)
Change of operational structures

New Jobs

- „Discharge Manager“ (very often senior experienced nurse to plan and prepare / coordinate already during stay the patients discharge, e.g. find bed in nursing or rehabilitation center, organize necessary medical devices, find care at home….)

- „Admission Manager“

- „Internal bed-management“ (very often senior experienced nurse to improve patient steering, optimize usage of capacity)

- Risk-manager, PR, on-ward patient manager…
Shift of duties between hospital staff

- Optimized use of qualifications
- Transfer from medical to nursing staff
  - i.e. taking of blood samples
  - i.e. application of antibiotics / certain chemotherapies
- Transfer from nursing to auxiliary / technical staff
  - i.e. assisting services in OR (OTA)
  - i.e. dietary nutrition advice
  - i.e. meal delivery to patients
  - i.e. administrative services (ward secretary)
Establishment and expansion of selected departments/areas after implementation of the G-DRG System (before 2004, 2004-2006)

<table>
<thead>
<tr>
<th>Department/Position</th>
<th>Medical cost control</th>
<th>Medical coding</th>
<th>Discharge management</th>
<th>Quality management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Established already before 2004</td>
<td>55,3% (219)</td>
<td>10,9% (44)</td>
<td>20,5% (81)</td>
<td>52,8% (209)</td>
</tr>
<tr>
<td>of which between 2004 and 2006</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- expanded</td>
<td>53,0% (116)</td>
<td>62,8% (27)</td>
<td>54,3% (44)</td>
<td>35,9% (75)</td>
</tr>
<tr>
<td>- reduced</td>
<td>1,4% (3)</td>
<td>0% (0)</td>
<td>0% (0)</td>
<td>1,0% (2)</td>
</tr>
<tr>
<td>- not changed</td>
<td>12,8% (28)</td>
<td>9,3% (4)</td>
<td>16,0% (13)</td>
<td>19,6% (41)</td>
</tr>
<tr>
<td>Established between 2004 and 2006</td>
<td>29,5% (117)</td>
<td>39,6% (157)</td>
<td>20,7% (82)</td>
<td>27,5% (109)</td>
</tr>
</tbody>
</table>

Source: IGES; Hospital survey
## Significant changes of organizational structures in the medical and nursing field (2004-2006)

<table>
<thead>
<tr>
<th>Changes of organizational structures</th>
<th>Number and percentage of answering hospitals</th>
<th>Reasons for changes, which cannot be ascribed to the G-DRG system implementation (e.g. general reorganization needs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setup and extension of ambulatory surgery and accompanying structures</td>
<td>46% (n=103)</td>
<td>37%</td>
</tr>
<tr>
<td>Founding of medical centers</td>
<td>39% (n=87)</td>
<td>41%</td>
</tr>
<tr>
<td>Set-up or expansion of sub-specializations</td>
<td>17% (n=38)</td>
<td>36%</td>
</tr>
<tr>
<td>Establishment of intermediate care units</td>
<td>15% (n=33)</td>
<td>33%</td>
</tr>
<tr>
<td>Establishment and reorganization measures of admission processes</td>
<td>13% (n=30)</td>
<td>29%</td>
</tr>
<tr>
<td>Further development of outpatient service and accompanying structures (incl. medical care centers)</td>
<td>9% (n=21)</td>
<td>28%</td>
</tr>
<tr>
<td>Establishment of stroke, chest-pain units</td>
<td>6% (n=13)</td>
<td>28%</td>
</tr>
</tbody>
</table>

Source: IGES; Hospital survey
Medical staff in hospitals

Workforce and workload

- ABF-implementation was followed by growing number of inpatient cases at lower average length-of-stay
- The number of doctors in hospitals grew at a higher rate than the number of patients
- Currently: Shortages of doctors available to hospitals
Number of full-time employees for selected professions
Development between 1995 and 2010 (1995=100)

Source: IGES; Federal Office of Statistics
Workload per employee

Patients treated per employee

- Doctors
- Nurses

<table>
<thead>
<tr>
<th>Year</th>
<th>Doctors</th>
<th>Nurses</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>161.6</td>
<td>54.7</td>
</tr>
<tr>
<td>2001</td>
<td>159.8</td>
<td>55.0</td>
</tr>
<tr>
<td>2002</td>
<td>157.5</td>
<td>56.5</td>
</tr>
<tr>
<td>2003</td>
<td>154.3</td>
<td>57.3</td>
</tr>
<tr>
<td>2004</td>
<td>145.1</td>
<td>57.6</td>
</tr>
<tr>
<td>2005</td>
<td>140.8</td>
<td>58.9</td>
</tr>
<tr>
<td>2006</td>
<td>138.0</td>
<td>59.3</td>
</tr>
<tr>
<td>2007</td>
<td>138.1</td>
<td>60.7</td>
</tr>
<tr>
<td>2008</td>
<td>138.5</td>
<td>61.5</td>
</tr>
<tr>
<td>2009</td>
<td>137.5</td>
<td>61.9</td>
</tr>
<tr>
<td>2010</td>
<td>135.4</td>
<td>62.3</td>
</tr>
</tbody>
</table>
Workload per employee

Caredays per full-time employee

- Doctors
- Nurses

- 1,495, 1,435, 1,360, 1,287, 1,187, 1,134, 1,094, 1,077, 1,055, 1,026, 994

- 506, 494, 488, 478, 471, 474, 470, 473, 468, 462, 457

### Structural changes to hospital system

#### Departmental structure

- Reduction of overall number of hospitals
- Reduction of overall number of hospital-beds
- Reduction of number of hospital-departments
- Decrease in number of departments for „general-services“
- Increase in number of departments for „special-services“
- „Reduction and Specialisation“ and strong trend to „ambulatory operation“

<table>
<thead>
<tr>
<th>Departments</th>
<th>Number of beds</th>
<th>Annual change rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ophthalmology</td>
<td>6.734</td>
<td>6.479</td>
</tr>
<tr>
<td>Surgery</td>
<td>125.899</td>
<td>123.215</td>
</tr>
<tr>
<td>Obstetrics and gynaecology</td>
<td>46.133</td>
<td>44.974</td>
</tr>
<tr>
<td>Otorhinolaryngologie</td>
<td>13.819</td>
<td>13.600</td>
</tr>
<tr>
<td>Skin and venereal diseases</td>
<td>5.267</td>
<td>5.232</td>
</tr>
<tr>
<td>Cardiovascular surgery</td>
<td>3.126</td>
<td>3.438</td>
</tr>
<tr>
<td>Internal medicine</td>
<td>179.137</td>
<td>177.710</td>
</tr>
<tr>
<td>Paediatric surgery</td>
<td>2.291</td>
<td>2.224</td>
</tr>
<tr>
<td>Paediatrics</td>
<td>21.628</td>
<td>21.426</td>
</tr>
<tr>
<td>Oral and maxillofacial surgery</td>
<td>2.568</td>
<td>2.539</td>
</tr>
<tr>
<td>Neurosurgery</td>
<td>6.281</td>
<td>6.406</td>
</tr>
<tr>
<td>Neurology</td>
<td>19.860</td>
<td>19.870</td>
</tr>
<tr>
<td>Nuclear medicine</td>
<td>969</td>
<td>978</td>
</tr>
<tr>
<td>Orthopaedics</td>
<td>25.071</td>
<td>25.087</td>
</tr>
<tr>
<td>Plastic Surgery</td>
<td>1.804</td>
<td>2.032</td>
</tr>
<tr>
<td>Radiotherapy</td>
<td>3.569</td>
<td>3.488</td>
</tr>
<tr>
<td>Urology</td>
<td>16.657</td>
<td>16.478</td>
</tr>
<tr>
<td>Other departments</td>
<td>4.909</td>
<td>4.785</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>485.722</strong></td>
<td><strong>479.961</strong></td>
</tr>
</tbody>
</table>

Source: IGES; Federal Office of Statistics
Nursing staff in hospitals
Workforce and workload

- The growing number of inpatient cases resulted in a significantly higher workload for nursing staff.
- The number of nursing staff in hospital did not develop at a similar rate as the number of patients.
- Only several years after ABF-implementation nursing associations got involved contributing to the development of the DRG-system.
Nursing staff in hospitals
Description of specialized nursing activities

- A lack of nursing related descriptive elements within the DRG-definition was identified (ICD-coding not suitable)
- This led to a discussion on false incentives to avoid the treatment of patients with extensive need of care
- Establishment of a description model of highly extensive nursing-care as part of the DRG-definition
Funding of Complex Nursing Care in Germany

Background

- In 2009 legislation to better fund nursing care in German hospitals (“Pflegesonderprogramm” / 800 mio. €)
- Additional funding should go to the hospitals with highest load of patients in need of extensive nursing care
- “Free-rider effects” should be avoided (budget increase to employ more nurses, hospitals use funds for other purposes)
Funding of Complex Nursing Care in Germany
Developing a suitable procedure code

- DRG reimbursement is based on full cost of hospital cases, so cost of nursing is included (on average)
- Hospitals with a high load of complex nursing cases might not be sufficiently funded
- Additional funding requires a sound definition of the services funded (which requires documentation)
- “Over-documentation” should be avoided (no new score for all 19 million inpatient cases in Germany!)

→ New codes for “Complex Nursing” target only the most complex nursing cases (aim: 1-2% of all cases)
Funding of Complex Nursing Care in Germany
Developing a suitable procedure code

- German Nursing Association (DPR) managed the development of these codes
- Questions which had to be answered first:
  - What is a highly complex inpatient case?
  - Which nursing activities could be declared as highly complex and time-consuming?
- Pilot projects in several hospitals to ensure that nursing activities included in the new score are associated with a certain amount of additional effort
"Complex Nursing Procedure Score"

How to reimburse "Complex Nursing Services"?

- nursing needs
- disabilities
- complex nursing procedures

"Complex Nursing Procedure Score"

→ Additional funding of patient with high nursing needs and nursing efforts
“Complex Nursing Procedure Score”
Criteria and Coding

- **Nursing needs** in combination with **complex nursing procedures**
- Only applicable for inpatients
  - at normal wards and intermediate care (not ICU)
  - Codes differentiated by age (2-5, 6-17, >17 years) and classes of “effort points“
  - effort points correspond to additional nursing effort measured in the pilot projects (30 minutes per point)
"Complex Nursing Procedure Score"
Example of nursing items included

- Personal hygiene
- Communication
- Nutrition
- Mobility
- Excretion
<table>
<thead>
<tr>
<th>nursing item:</th>
<th>reason for highly complex nursing:</th>
<th>corresponding nursing activity:</th>
</tr>
</thead>
<tbody>
<tr>
<td>movement</td>
<td>Patient is not able to turn around in bed without assistance because of a certain number of infusions/drainages, obesity, instability of spine, extension splints, plaster jacket, distinct spasticity or distinct palsy /contracture</td>
<td>Positioning because of immobility at least 7x/day and mobilisation (2x/day) to the chair/wheel chair or extensive prophylaxis of contracture and extensive prophylaxis of thrombosis</td>
</tr>
</tbody>
</table>
“Complex Nursing Procedure Score“

Example

- **Nursing need**: tetraplegic patient (adult)
- **Complex nursing procedure**: patient has to be fed (min. 4-times a day) and hydrated (min. 7-times a day)
  - 4 points per day in category “Nutrition”
  - additional points in further categories
  - care days with nursing: 10
  - sum: 150 effort points
  - 150 points → OPS 9-200.6 ≅ 2.235,91€
“Complex Nursing Procedure Score“
Reimbursement

- “Complex Nursing” can be relevant in any DRG
- Thus additional financing per additive co-payment (“Zusatzentgelt”, ZE)
- No additional funding of “everyday” cases
- Minimum of effort points for reimbursement currently = 43 (corresponding to more than 20 hours of additional nursing care)
"Complex Nursing Procedure Score"

Example of ZE

<table>
<thead>
<tr>
<th>ZE130</th>
<th>Hochaufwendige Pflege von Erwachsenen</th>
<th>ZE130.01</th>
<th>9-200.0</th>
<th>Hochaufwendige Pflege von Erwachsenen: 43 bis 71 Aufwandspunkte</th>
<th>1.091,70 €</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>9-200.1</td>
<td>Hochaufwendige Pflege von Erwachsenen: 72 bis 100 Aufwandspunkte</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>9-200.5</td>
<td>Hochaufwendige Pflege von Erwachsenen: 101 bis 129 Aufwandspunkte</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ZE130.02</td>
<td>9-200.6</td>
<td>Hochaufwendige Pflege von Erwachsenen: 130 bis 158 Aufwandspunkte</td>
<td>2.235,91 €</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>9-200.7</td>
<td>Hochaufwendige Pflege von Erwachsenen: 159 bis 187 Aufwandspunkte</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>9-200.8</td>
<td>Hochaufwendige Pflege von Erwachsenen: 188 bis 216 Aufwandspunkte</td>
<td></td>
</tr>
<tr>
<td>ZE131</td>
<td>Hochaufwendige Pflege von Kleinkindern oder von Kindern und Jugendlichen</td>
<td>ZE131.01</td>
<td>9-201.0</td>
<td>Hochaufwendige Pflege von Kindern und Jugendlichen: 43 bis 71 Aufwandspunkte</td>
<td>2.680,16 €</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>9-201.1</td>
<td>Hochaufwendige Pflege von Kindern und Jugendlichen: 72 bis 100 Aufwandspunkte</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>9-201.5</td>
<td>Hochaufwendige Pflege von Kindern und Jugendlichen: 101 bis 129 Aufwandspunkte</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ZE131.02</td>
<td>9-201.6</td>
<td>Hochaufwendige Pflege von Kindern und Jugendlichen: 130 bis 158 Aufwandspunkte</td>
<td>5.032,65 €</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>9-201.7</td>
<td>Hochaufwendige Pflege von Kindern und Jugendlichen: 159 bis 187 Aufwandspunkte</td>
<td></td>
</tr>
</tbody>
</table>

Modified from "G-DRG Fallpauschalenkatalog" 2015
Structure and infrastructure adjustments
Non-medical service areas

- Overall rule: Get rid of all service areas others could carry out better and/or at lower cost
- Widely outsourced non-medical services such as cleaning, food-preparation and laundry.
- Widespread optimization in the supply of goods (medical and non-medical) by using the services of procurement cooperations
### Significant changes of organizational structures in secondary-medical and non-medical departments of hospitals (2004-2006)

<table>
<thead>
<tr>
<th>Changes of organizational structures</th>
<th>Number and percentage of answering hospitals</th>
<th>Reasons for changes, which cannot be ascribed to the G-DRG system implementation (e.g. general reorganization needs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centralization of secondary-medical and non-medical departments</td>
<td>49% (n=89)</td>
<td>60%</td>
</tr>
<tr>
<td>Outsourcing of secondary-medical and non-medical departments</td>
<td>40% (n=73)</td>
<td>51%</td>
</tr>
<tr>
<td>Outsourcing or founding of subsidiaries and service companies</td>
<td>18% (n=33)</td>
<td>60%</td>
</tr>
<tr>
<td>Accession to purchasing groups or cooperations</td>
<td>11% (n=21)</td>
<td>59%</td>
</tr>
</tbody>
</table>

Source: IGES; Hospital survey
Structure and infrastructure adjustments

Ex.: Procurement cooperations of hospitals in Germany

- Standardized catalogue of articles
- Combined demand results in better prices and delivery conditions
- Up to 1100 members
- Up to 1,5 billion € sales volume p.a.
- Wide range of additional consulting services
Structure and infrastructure adjustments
Ex.: Cooperations in secondary-medical services

**Vivantes**: Group of public hospitals in Berlin
- 9 hospitals
- 231,000 inpatient cases p.a.
- 310,000 outpatient cases p.a.

**Charité**: University hospital in Berlin
- 3 main campuses
- 139,000 inpatient cases p.a.
- 656,000 outpatient cases p.a.

**Centralized laboratory services**
- for all public hospitals and other public medical institutions in Berlin
- Supply of all types of laboratory services
- Services also to other hospitals in the region
Cooperations with external partners
Medical areas

- Enhancing the range of medical services by integrating specialized competencies of partners
  - i.e. external doctors working in own OR
  - i.e. specialized diagnostics done in partnering hospital

- Optimizing efficiency and quality in core medical areas by establishing an integrated treatment process
  - i.e. specialized surgery with post-OR care done by partner

- Sharing costs by using high-cost medical devices with partners
  - i.e. imaging systems
## Significant changes of organizational structures in secondary-medical and non-medical hospital departments (2008-2010)

<table>
<thead>
<tr>
<th>Changes of organizational structures</th>
<th>Percentage of change measures</th>
<th>Effects based on G-DRG system implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Increase in economic efficiency</td>
</tr>
<tr>
<td>Centralization of departments/areas</td>
<td>35% (n=39)</td>
<td>34%</td>
</tr>
<tr>
<td>Reorganization of departments/areas</td>
<td>28% (n=31)</td>
<td>34%</td>
</tr>
<tr>
<td>Outsourcing of departments/areas</td>
<td>23% (n=25)</td>
<td>34%</td>
</tr>
<tr>
<td>Total</td>
<td>(n=111)</td>
<td>34%</td>
</tr>
</tbody>
</table>

Source: IGES; Hospital survey
Cooperations with external partners
Ex.: Integrated treatment process

Deutsches Herzzentrum Berlin
- 164 hospital beds
- Heart and lung transplantations.
- Spezialized heart surgery
- After post-OR intensive care patients are transferred

Paulinen Krankenhaus Berlin
- 150 hospital beds for patients in cooperation programme
- Patients with post-OR care
- Patients waiting for donor organ for transplantation

Changes to training nurses and doctors
Impairment of quality?

- Quality problems were predicted to occur by those, who criticized the introduction of the system (Not that we had reason to believe the old system stimulated or produced high quality of care)
- Therefore the DRG introduction led to heightened attention concerning possible quality problems
- In fact, quality problems have not been an issue
- The opposite seems to be the case:
  - DRG reimbursement provides an excellent data base for quality control and measurement
  - DRG increase competition among providers, which will inevitably improve quality
Same Price for Same Service

This principle Leads to Discussions On:

- Minimum for the defined service?
- Quality of processes and results?
- Assurance of quality through
  - Complementary statutory quality assurance measures
  - Comparability of services for patients and cost units
  - Billing rules ("warranty for therapy", transferral rules)
Transparency

Service Range, Quality and Costs

- Every hospital publishes its own quality report on the Internet. Main information: “Who does what and how often?”
- Health insurance companies offer information on clinic services and sometimes on prices (base rate of the hospital)
- InEK offers detailed calculation results
28.05.15 „How ABF changed clinical practice in Germany“ Speaker: Dr. Frank Heimig

Institut für das Entgeltsystem im Krankenhaus GmbH

23.01.2007
Qualitätsbericht der Kerckhoff-Klinik für das Berichtsjahr 2005 ist verfügbar

UNIVERSITY HOSPITAL GIESSEN AND MARBURG
LOCATION MARBURG
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Quality Management
Sens, Brigitte; Wenzlaff, Paul; Pommer, Gerd; Hardt, Horst von der
Auswirkungen der DRG-Einführung: Die Qualität hat nicht gelitten

Zentrum für Qualität und Management im Gesundheitswesen, Hannover: Dr. phil. Sens, Wenzlaff, Prof. Dr. med. von der Hardt;
Qualitätsinitiative - Niedersächsischer Verein zur Förderung der Qualität im Gesundheitswesen, Hannover: Dr. med. Pommer

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• zur Registrierung
Conclusion

- Introduction of ABF-Funding led to an overall change the way hospitals provided their services as well as changes to hospital structures with regards to: composition of personnel, training, patient work-flow, balance between ambulatory and in-patient care, cooperation between hospitals and all other providers, distribution of workload between different professionals, purchasing, etc...
German DRG-System

Costing healthcare in Germany
Report of a meeting between InEK, the HFMA and Monitor

G-DRG-Impact evaluation according to sec. 17b para. 8 Hospital Finance Act
Executive summary of the final report of the third research cycle (2008 to 2010)
March 2013
Analysis by order of the German Institute for the Hospital Remuneration System (InEK)
CONTACT

InEK GmbH
Auf dem Seidenberg 3
53721 Siegburg

Tel: +49 (0) 22 41 / 93 82 0
Fax: +49 (0) 22 41 / 93 82 35
Mail: INFO@InEK-DRG.de
Internet: www.G-DRG.de
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