Managing technologies or diseases? Two strategic approaches towards health care in the ageing population

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Ageing (1): Progress in the next two decades

Source: UN (2009), own calculations
Ageing (2): Growing expenditure* for chronic diseases, German statutory health insurance, 2008

* Expenditure for physicians, dentists, drugs and hospital care

DMP = Disease Management Program

Source: Federal Insurance Office 2010
Two strategies to tackle the health care challenge

**Management of technology**
- One process for all technologies
- Aim: Exclude inefficient technologies
  
  ➞ Value for money ↑

**Disease management**
- One process for all patients of a disease, focus on chronic diseases
- Aim: Optimize process of care
  
  ➞ Patient outcome in daily practice ↑

*Cost-effective diabetes drug*

*Effective control of weight, HbA1C etc. in patients with diabetes*
Management process

Management of technology

1. Scoping
2. Assessment (Effects, Costs)
3. Appraisal
4. Communication of decision

- Coverage & reimbursement
  - No coverage

Management of chronic disease

1. Selection of disease for management
2. Definition of standard of care
3. Contracts by sickness funds
4. Monitoring by regulators

- Participation & implementation
  - No participation

Health and cost outcomes
Evidence base for management

Management of technology

Assessment
• Assessment committee to evaluate
• Effectiveness: often strong EBM base; economics: partly restricted base
• Key studies: Randomized clinical trials
• Problem: “Real world” relevance

Appraisal
• Rules to be set, e.g. by social code
• Stating willingness to pay for health improvement may raise problems (e.g., age discrimination)

Disease management

• Statutory sickness funds have to evaluate DMPs
• Evaluation criteria: medical indicators, costs, quality of life
• Pre/post or benchmarking studies
• Problems: lack of a control group, many interventions, transferability low

• Assessment impact rather vague
Technology example: Costs & effects of four diabetes drugs

![Graph showing costs and health gain for different diabetes drugs.]

- **Detemir**
- **Glargine**
- **Exenatide**
- **Neutral Protamine Hagedorn NHP**

Results for males with BMI = 30 and no complications

Waugh et al. 2010

- Maximum willingness to pay: 30000 UK £

Health gain in quality adjusted life years, QALYs

Cost, UK £
DMP diabetes type 2 example: Does enrolment improve care?

<table>
<thead>
<tr>
<th>Achieved *</th>
<th>Not achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Care Process</strong></td>
<td><strong>Medical advice</strong></td>
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<td></td>
<td><strong>Medical examination</strong></td>
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<td></td>
<td><strong>Medications prescribed</strong></td>
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<td></td>
<td><strong>Patient activity</strong></td>
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<td></td>
<td><strong>Patient Outcome</strong></td>
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<td></td>
<td><strong>Therapeutic goal reached</strong></td>
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</tbody>
</table>

* Higher share of DMP enrollees in goal achievement (odds ratios)
** Already more than 60 % of controls achieve this target

Data: KORA F4 survey, 89 enrollees in diabetes type 2 DMP vs. 77 controls (Stark et al. 2011)

=> Improvement achieved in 2/3 of 24 indicators!
Strategies and health care system

Management of technology

**Institutional requirements**
- Tight regulatory grip on technology, e.g. national reimbursement setting
- Culture of evidence-based management

**Incentives**
- Reimbursement of technology
- Options for cost-sharing?

Disease management

- Access of chronic disease population, e.g. comprehensive insurance coverage
- Legal framework guiding participants
- Insurers contracting with providers

**Adverse interests of stakeholders**
- Providers, patients & insurers support technological progress
- Ethical issues in rationing care, e.g. risk of age discrimination

- Challenges:
  - Physicians may lose autonomy
  - Patients forced to be compliant
  - Insurers may face higher cost
Resume on the two strategies

• Both necessary, but different in management style, process and requirements
• Strategy to be integrated in health care system
• Implementation requires a long-term concept
• Evaluation of impacts and achievements needed for both strategies