Success Factors for DRG Implementation, Performance-based Reimbursement and Hospital Financing

Data, Calculation, Regulations, Benchmark, Financial incentives, …
… and reasons for failure

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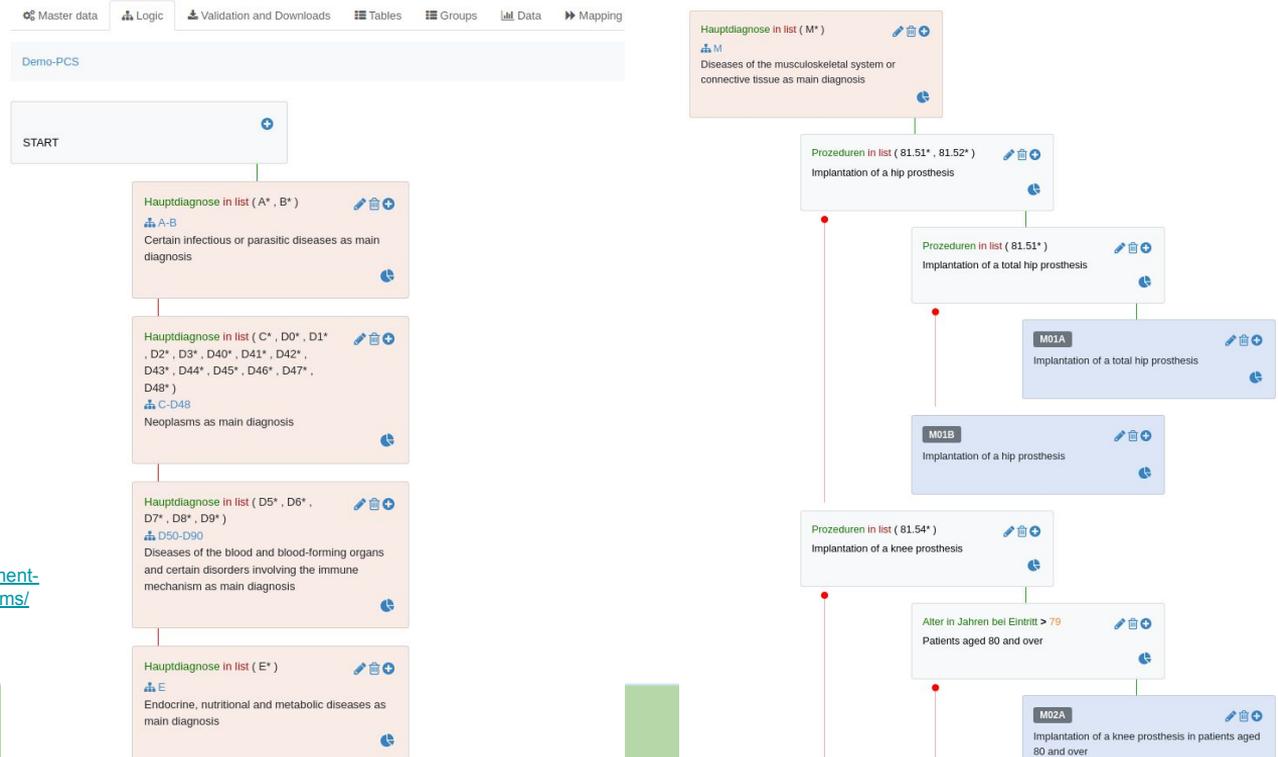**Christopher Schmidt, CEO**
symedric Inc.

Agenda

- Development and Calculation of the (technical) DRG System

- Fields of application: Patient classification, performance measurement, reimbursement, financing and / or budgeting

- Health policy and healthcare structures

- **Implementation issues and reasons for failure (slide no. 13)**

- The Future: Performance based financing and best practice tariffs

- Sensible handling from the point of view of hospitals and insurers

Development of the system

- Essential building blocks

  - Data, Coding and Classification Systems: Level of digitization and standardization

  - Costing and cost data (real cost data, historic, adjusted or imported)

  - Transparency of financial sources, extra payments, private payments and additional earnings

- Flexibility of the DRG logic and tools for editing a medical logic based on decision trees (software frameworks vs. statistical software and "Excel")

Development of the system: Software & Tools

- Example of the grouper logic, represented by a decision tree, that can be edited by inserting and deleting decision nodes and defining the split rules for each node
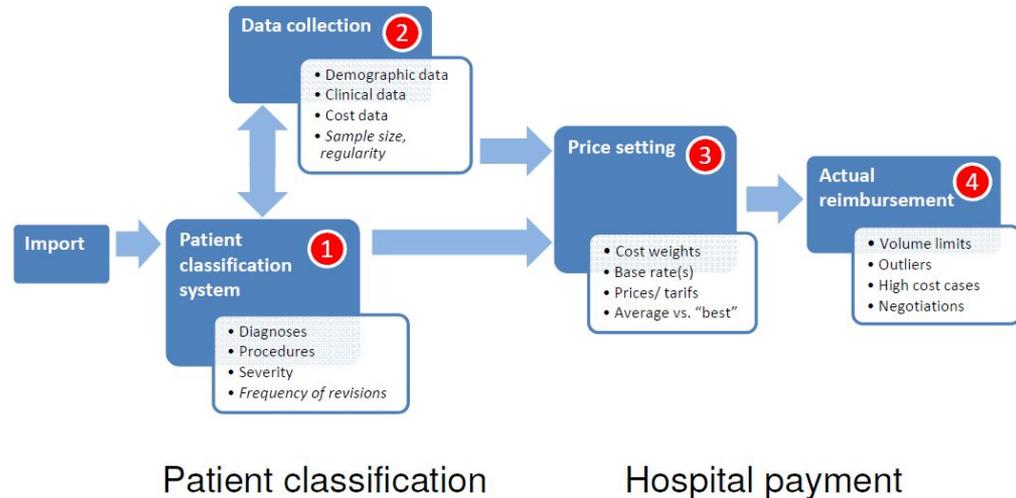
Screenshots from eonum Casematch PCS:
https://eonum.ch/en/allgemein-en/development-environment-for-patient-classification-systems/

Development of the system

- Slides 6 to 22 regarding the building blocks and essential structured hospital data and technical framework on request:

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Patient classification   Hospital payment

- Selection of DRG model and its complexity depends highly on the objectives and purposes. The following questions should be addressed beforehand:

    - Diversity of healthcare providers and coverage of inpatient and / or outpatient services?

    - No. of patients treated and quality of clinical, coded and cost data?

    - Proportion or degree of the Lump-sum payment?

    - Financial incentives: Managed competition, cost control or performance mandates?

Scope of DRG implementation

- Slides 24 to 31 regarding health policy issues on request:

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Calculation

- Calculation and valuation of inpatient and outpatient services

- Reimbursement schemes / models in line with the medical logic and DRG grouping

- Cross validation of cost and performance data: Data cleansing to get unbiased distributions of cost and length of stay for cost weight and trim points calculation

- Effects of trim points, model of surcharges and discounts on the overall system performance

- Additional payments and cost data adjustment

Limitations of the DRG tariff structure

Each DRG tariff structure can only explain those cost differences that can be attributed to the patients and the necessary services. Regional differences, e.g. in wage levels, ancillary wage costs, real estate or rental costs are not reflected and do not play a decisive role in the further differentiation of the tariff structure.

The quality of the tariff structure or its weak points should be presented for the health care partners and the licensing authorities. In this way, it can be shown where cost differences cannot be explained by the tariff structure.

Limitations: Statistical issues

The **(weight) compression effect**** is an effect inherent in the system and results in particular from the statistical calculation method (averaging costs) and the type of costing, cost recording, and cost delimitation. The effect cannot be completely eliminated. Indications are provided by the key figures on the cost recovery ratios for individual hospital categories. There are also benchmark models that take this effect into account.

The effect has to be taken into account in benchmark models and will affect primarily specialized clinics and University hospitals.
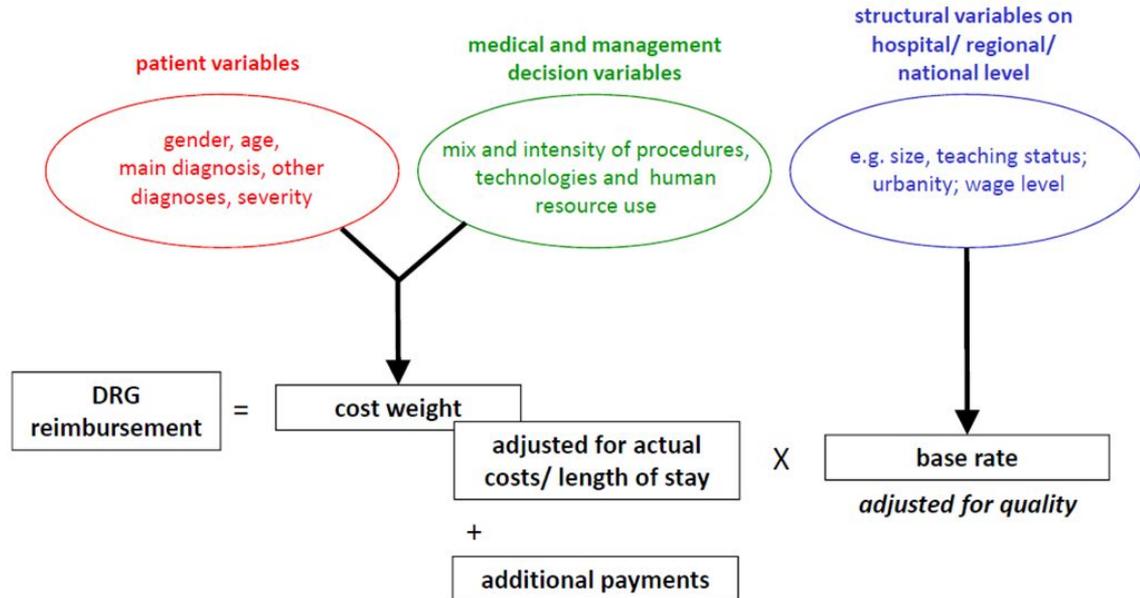
** low-cost DRGs may be over-valued and high-cost DRGs undervalued which results in a limited range of casemix index

Regulation and implementation issues

- Interaction of tariff structure, application rules, and regulatory framework:

Slides 41 to 55 regarding the context of DRG implementation on request:

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Price differentiation and Benchmarking

- Because of the limitation of the DRG tariff structure the following factors can contribute to price differentiations (in case of substantial variances):

  - Salaries / payroll, rents and taxes

  - Hospital size and teaching level

  - Innovations / new diagnostic or therapeutic procedures

  - Infrastructure costs (property or leasing costs, loans, etc.)

  - (quality of care)

  - (research and teaching)

Implementation: Reasons for systemic failure

- Unclear health economic and socio-economic objectives

- Rigid organizations and high regional specificities in healthcare infrastructures

- Lack of entrepreneurial freedom of healthcare providers

- "To big to fail" healthcare providers

- Underestimation of statistical effects, of data quality issues, and of the limitations of the DRG system (per se)

- Lack of an independent organization for the "neutral and objective" development and implementation of the DRG system

- Please feel free to contact us for further insights, our considerations, consulting services, and white paper

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