

Costs in Value-Based Health Care Dashboards: A Qualitative Study on Stakeholder Objectives and Requirements

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From budget-driven to value-driven hospitals



Value dashboard for orthopedic surgery



Reilly CA, et al: Creating a Value Dashboard for Orthopaedic Surgical Procedures. J Bone Joint Surg Am (2020)

Research question



Methods Study design and data collection

- Organ transplant center
- Semi-structured interviews
- Requirements analysis (Alexander and Beus, Discovering Requirements (2009))
- Purposeful sampling:



Methods Qualitative analysis

Thematic analysis and deductive coding by two researchers

Example of coding transcript

Q: Could you describe a scenario of how would you use the dashboard? A: "Well, I think what you should do is to collectively review the dashboard once a month or once every two months. So, within the group..."



Results Participants

Invited n=56 Response n=15

> IT advisor Clinical informatics specialist Financial advisor



Clinicians Nurse practitioners Physician assistant





Patient-relevant costs discussed

- Productivity costs (e.g. salary, income)
- Out-of-pocket expenses

Results Stakeholder objectives

1. Identify costs and resources

"Well <u>what does it cost</u>, you know? A liver transplant patient? I would find that quite interesting." HCP1

2. Evaluate the value of care

"Are we going to <u>add</u> something to the care pathway or are we going to <u>remove</u> something from it? And does it have an <u>impact on the quality of care</u> or not?" M3

3. Monitor financial viability

"...the financial assurance that there is <u>sufficient income to cover the costs</u>. That should be included, and you should also have a <u>point of reference</u> for when to stop if it falls below a certain threshold." F&IT2









In total, 32 requirements across five themes. Some highlights:

Who

 Care team and relevant advisors, including a <u>financial expert</u> and someone responsible for the continuous improvement process

Data

- The costing model used should <u>accurately capture all costs</u> in the care pathway and should be <u>validated</u>.
- An <u>organizational structure in themes</u> surrounding disease areas will support appropriate data collection of all relevant indicators.

Interface

• The dashboard should have a <u>signaling function</u> for improving and declining performance.

Discussion

Conclusion

- Sensitive nature of cost data
- The role of health insurers
- Patient-relevant costs are not available in the hospital financial administration

- Actionable objectives and requirements
- The functionalities of a VBHC dashboard should be aligned with the objective
- Future research should further explore the role of patient-relevant costs



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