

Input parameters for value-based alternative payment models in expensive pharmaceuticals in the Western countries: a scoping review and a use-case interview study in the Netherlands

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BACKGROUND

- In this study we explore useful parameters for an alternative payment model (APM) for the disease multiple myeloma (MM) as use-case.
- MM is exemplary for potentially changing the structure of reimbursement, because of its complexity and practice of innovative treatments last decade. MM is a plasma cell cancer and is not the most prevalent type of cancer, but has one of the highest incremental costs
- MM is most diagnosed in patients above 60 years and the average life-expectation of patients in Western countries is around 10 years .

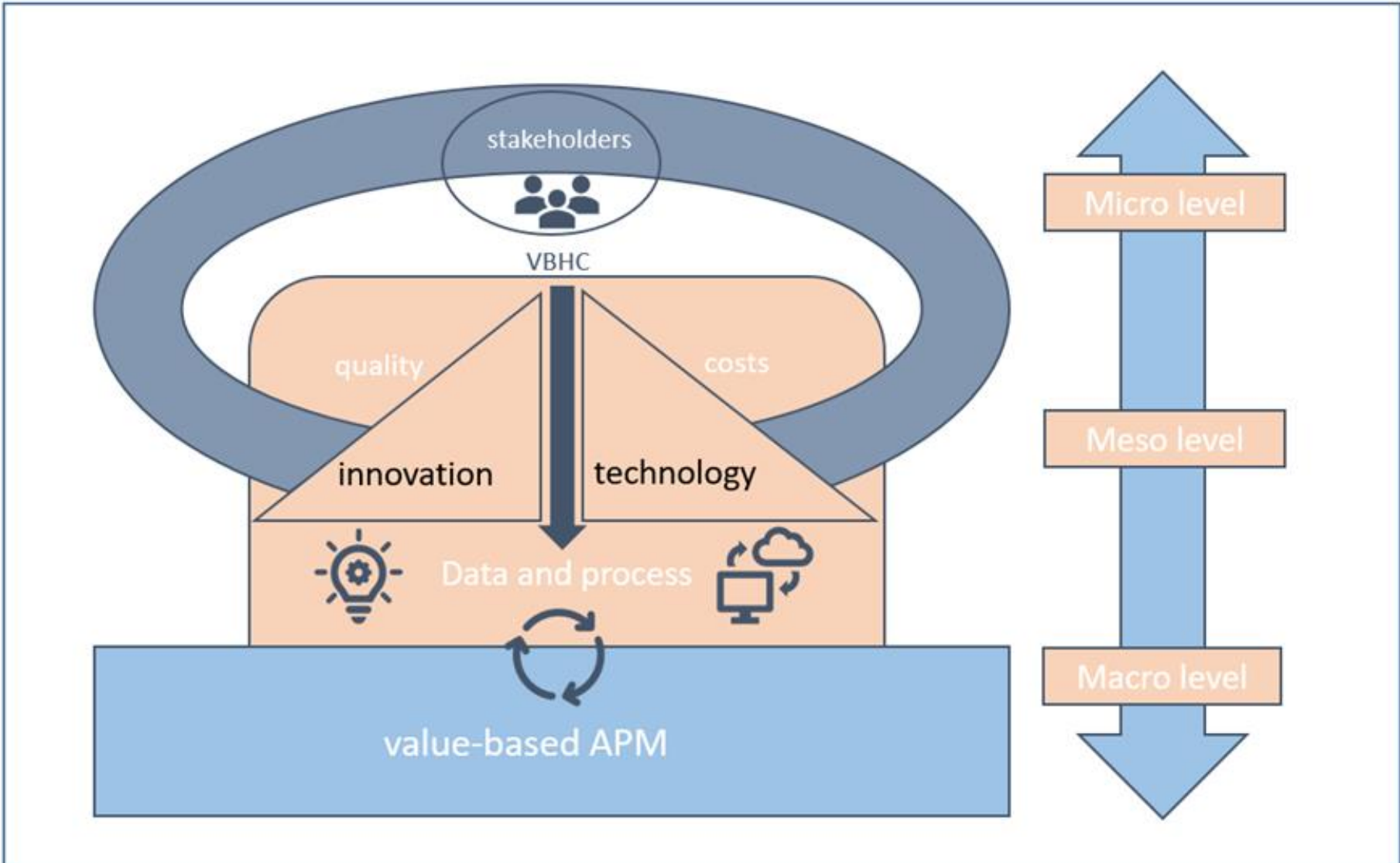


Figure 1. Crucial steps for a value-based APM at micro, meso and macro level. VBHC: value-based healthcare; APM: alternative payment model

OBJECTIVE

we aimed to explore parameters for a VB-APM for the disease, MM as a use-case study

METHOD

- A scoping review was conducted using Pubmed and Embase (PRISMA-ScR)
- A Qualitative study was performed with COREQ criteria
- Semi-structured interviews with 14 stakeholders
- Classification of answers in themes was applied

STRENGTHS AND LIMITATIONS

- The strength of this study is that it shows the gap between literature and practice for a dynamic value-based APM for MM by also conducting interviews with stakeholders.
- Bias might have occurred due to exclusion of non-Western publications.
- Possible innovation might have been overlooked due to exclusion of trials and pilot studies
- Limited insight in costs. Costs are an important input parameter and thus essential for an implementable model.

RECOMMENDATIONS

In this study first steps towards an APM for MM are marked. In the future, stakeholders should be engaged in for instance a focus group to ensure trust by cooperation and transparency.

- From a broad overview this study showed the needs and bottlenecks in literature and from stakeholders' perspective for a theoretical value-based APM for MM in the Netherlands.
- An APM for MM composed of phases, dynamic and integral is needed with trust by cooperation and transparency between stakeholders.
- Patient value is the most important output component and the role of the patient should be a crucial input parameter depended on the condition of a disease.

RESULTS

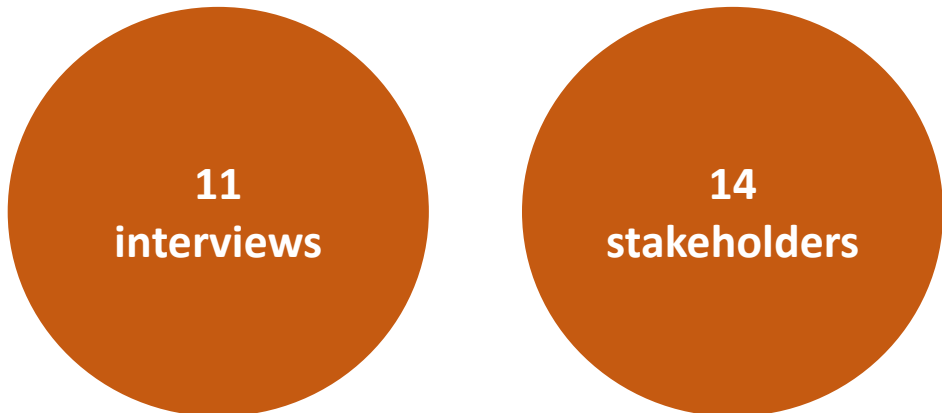
Results of the scoping review

- The PubMed search resulted in 566 papers, the Embase search in 397 and via governmental sites, 12 white papers were included. After removing 124 duplicates, 851 papers remained for screening. After analyzing the studies on title and abstract, 63 papers were fully read. After excluding papers based on full text and inclusion criteria, 31 papers with APMs were found eligible for the scoping review. Of the 31 APMs found in this part of the study only 8 were implemented in practice. 7 bundled payment and 1 community-based payment models were implemented of which 6 bundled payments showed cost reduction with no loss of quality of care.
- 4 of these models stated more integration and coordination between healthcare professionals, for instance in the form of multidisciplinary teams or an IPU.
- Multiple models also describe usage of telehealth, which could reduce costs due to less visits to the hospital.

Table 1. Impact of implemented APM

Condition	Model	Impact
Obesity	Bundled payment with episode of care	More favorable results for all indicators, including cost reduction
Pelvic floor disorder	Bundled payment	Reduction in healthcare spending and surgical rate. Increased access to ancillary services for patients
Breast cancer screening	Bundled payment	Reduction in costs
Radiation oncology	Bundled payment	Mixed results for the different stages of cancer treatment
Detoxification	Bundled payment	Loss of revenue healthcare professional
Cancer (ASCO)	Community-based payment model	Gain in savings
Joint replacement	Retrospective bundled payment	Reduction in spending without loss of quality of care
Care improvement	Retrospective bundled payment	Reduction in spending without loss of quality of care

Results of the use case interview study



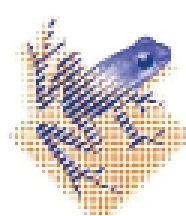
“Due to innovation and technology, an APM needs to be dynamic enough to adapt shifts in condition of disease”

Strategies to support the implementation of an APM, divided in 3 groups.

- Government involvement
- Changes to healthcare insurance
- A bottom up approach

DISCUSSION

- A very important result of the interviews is that the **value of the patient** is a parameter that needs to be integrated in an APM for MM. However, it became clear that the definition of patient value is a bottleneck and not properly defined within the different groups of stakeholders in this study.
- Stakeholders mentioned that definitions should be the same for everyone to ensure a successful APM. To account more for patient value, patients should have a more directing role in the consultation room. Here lies the first gap found between literature and practice.
- In the scoping review literature, definitions and patient value were marginally described when developing an APM.
- Communication and cooperation was mentioned in the literature while as mentioned in the interviews: trust, intrinsic motivation and consensus were not specific described.



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Europe 2024
17-20 November 2024 | Barcelona, Spain

