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Oral

The emergence of value-based frameworks in healthcare: a literature review

Background

Modern healthcare systems are facing comparable challenges mainly driven by the known and clear trends in our society and shrinking healthcare budgets. In this context, 'value' has emerged as a key concept to drive healthcare policies and the allocation of resources to select and finance cost-effective interventions, drugs and technologies. In both USA and Europe several value-based frameworks (VBFs) are emerging, with apparently comparable objectives but different methodologies and expected object of analysis (Willke et al., 2018; Neumann et al., 2018).

Objectives

We conducted a literature review to map and compare currently available VBFs and identifying their strengths, weaknesses, and possible uses.

Methodology

We run a preliminary search of the principal scientific databases, and a parallel broader web-search to have a clear understanding of how the topic of VBFs, for both drugs and devices, is defined across both the published and grey literature. We used different keywords, and combination of keywords, such as: *“value framework/s”*, *“value-based framework/s”*, *“value-based frameworks”* & *“devices, “value-based frameworks” & “drugs”, “value-based investments”, “value-based assessments”, “value-based decision making”, “value-based healthcare”*.

We also attended special workshops and conferences' sessions specifically on VBFs (ISPOR Europe Conference, 2017, Dublin; ISPOR US Conference, 2018, Baltimore; Medtronic event “The value agenda for Italy”, 2018, Milan), in order to follow the most recent professional debate.

Given the high number of papers published on the general topic of “value” in healthcare, and the simultaneous risk of missing the most recent frameworks' developments, we opted for a narrative review, and organized our search by category of frameworks' developers: *professional associations, universities, consultancy,*

pharma and medical devices companies. Our identification strategy followed a purposive approach, later followed by snowballing sampling to include relevant reports and materials cited in previously included materials.

We define a framework as a defined set of measures developed to be applied in empirical contexts for the evaluations of drugs, devices or policy interventions. This definition played as an exclusion criteria, so that we included only applicable frameworks and not general 'value' initiatives.

We consulted professional associations, universities, consultancy, pharma and medical devices companies' websites and searched for evidence of different frameworks being developed, within their on-line published materials. Additionally, a review of the most recent academic papers published on the topic supported the analysis of the different frameworks found.

Our extraction template guided us to collect information about different frameworks, in terms of: *their definition of value; their main use (at least as expected) and the interventions addressed; the measures and variables considered; and implementation examples, when available*. To complete this analysis, we thus used both information released by the developers of each framework and other papers or grey literature. We did not set a time limit, but most of the materials we found have been published in the last couple of years. Among other sources we found two special issues of Value in Health, published one in 2017, one in 2018.

Preliminary results

The abundant materials developed in the last 2 years confirm a fast-growing interest for VBFs. Most of the current literature focuses on few frameworks developed by professional associations for cancer drugs. Only few models have been conceived for medical technologies.

Six are the most known VBFs: the American Society of Clinical Oncology (ASCO); the American College of Cardiology (ACC) and American Heart Association (AHA); Memorial Sloan Kettering Drug Abacus (MSKD); the European Society for Medical Oncology (ESMO); the National Comprehensive Cancer Network (NCCN), and the Institute for Clinical and Economic Review (ICER). We add one developed by

AdvaMed, specifically for medical technologies and diagnostics tests. The final paper will present the full comparative analysis of all VBFs.

We excluded from the review broader value-initiatives, but we will acknowledge some relevant experiences that are influencing the current debate of value-based healthcare and could eventually turn into new frameworks.

Some references*

Willke, R. J., Neumann, P. J., Garrison, L. P., & Ramsey, S. D. (2018). Review of recent US value frameworks—a health economics approach: an ISPOR Special Task Force report. *Value in Health*, 21(2), 155-160.

Neumann PJ, Willke RJ, Garrison LP. (2018) A health economics approach to US value assessment frameworks—introduction: an ISPOR Special Task Force report. *Value Health* 2018; 21:119–23.

**All references will be available in the full paper.*

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