

Creating a value-based healthcare delivery system

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Summary

Focus on the value of medical measures has become a groundbreaking paradigm of healthcare. “Value” is understood to be the relationship between results and costs, whereby the outcomes that are of great importance to the patients and affect their long-term quality of life carry more weight. For example, according to best-practice experiences, patients with prostate cancer allow themselves to be operated on in such a way that not only ensures the oncological success of the treatment, but also minimizes postoperative urinary incontinence and erection problems when a hospital continuously improves its surgical strategies and treatment pathways by using systematic reviews of outcome measurements. In order to introduce patient-relevant outcomes as comprehensive quality standards as much as possible, and thus create incentives for stronger value-based healthcare, numerous disease-specific and internationally applicable indicator sets have already been developed that are being increasingly used in the treatment practices of healthcare providers all over the world. This value-based transformation of care delivery requires a fundamental change: it must be redesigned as holistic and patient-centered treatment pathways in multi-professional teams, beyond the boundaries of old disciplines.

The quest for value in healthcare

The issue of the value of medical measures has become a groundbreaking paradigm of healthcare. The idea of “value” is not really a new one. For example, the value of a specific treatment can be illustrated by the fact that a patient regained his or her health.

Experts have been discussing the value of healthcare for a number of years, albeit in a specific context: as the relationship between outcomes and costs. In fact, the continuing rise in healthcare expenditures has brought the ratio of expenses and earnings to the fore of scientific and healthcare policy debates.

Nevertheless, this “value equation” of outcomes to costs – unlike pure cost-containment measures – is targeted not to healthcare that is as affordable as possible, but rather to healthcare that is as efficient as possible. This may mean that comparable results can be achieved with less money, thus generating savings. It is also about using certain resources more effectively and achieving better results with the same resources to increase the value of the healthcare. With regard to payment for healthcare services, value-based reimbursement is also a topic of discussion.

American experts Michael Porter, from Harvard Business School, and Elizabeth Teisberg, from Dell Medical School, popularized the value concept in the medical field and made a significant contribution to the modern framework of value-based medicine with their 2006 book “Redefining Health Care: Creating Value-Based Competition on Results.” One key point in the current debate is that when comparing results and costs in a value-based way, the outcomes that are of great importance to the patients themselves and their (long-term) quality of life carry more weight. In other words, outcomes are not simply outputs. The transformation of healthcare to a stronger value-based system therefore also requires a radically new care-delivery system that is tailored to the demands and needs of the patient and must be measured using new quality standards. The basis for this is above all:

Design principles of a value-based healthcare delivery system

- 1 **Measure** value for every patient
 - 2 **Organize** around the patient's clinical condition
 - 3 **Build** an enabling **information technology** platform
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Delivering outcomes that matter to patients: the case of prostate cancer

A concrete example of a value-oriented approach is the treatment of prostate cancer – for example, in the Martini Klinik in Hamburg, Germany. Part of University Hospital Hamburg-Eppendorf, the Martini Klinik is considered the largest prostate clinic in the world and performs more than 10% of all surgical removals of the prostate (radical prostatectomies) in Germany. In addition, the specialized private clinic has the world's largest prostate cancer database, which contains not only the biological tumor markers and risk profiles for each of its patients, but also extensive outcome data. The data are gathered one week after surgery, then after six months and then every year using Patient Reported Outcome Measurement (PROM) surveys, now generally carried out online. In addition to core medical parameters such as surgical complications or long-term oncological treatment success, interviewers can also precisely collect and analyze bladder dysfunctions, incontinence problems, or impotence problems that may develop after a procedure and are also of enormous significance to most patients.

“The database is the main reason for our success,” explains Hartwig Huland, Director of the Martini Klinik. For example, it is possible to compare the incontinence rates of patients for different surgeries within the hospital, make them more transparent, and therefore obtain ideas for an ideal surgical strategy that largely avoids unwanted fluctuations in quality. The Martini Klinik was able to develop an approach in which almost 94% of the surgical patients reported no incontinence problems, even one year after surgery – the average in Germany is only 57%, and in Sweden it is 50% for prostate cancer patients.

The Martini Klinik also does comparatively well with erection problems due to surgery. Approximately 35% of its patients suffered from severe erectile dysfunction one year after surgery, while the German average is over 75% and the Swedish average is 80%.

Huland explains that the systematic analysis of the outcome data plays a major role in optimizing processes and treatment pathways and therefore also improving the results for the patient without increased costs. “Outcome measurement with transparent results requires an investment, but it pays off.” An outcome-oriented approach is relevant for medical advances and a hospital's success, and is also a guiding principle for ethical reasons.

An international framework for measuring – and comparing – outcomes

Uniform global valuation standards are needed to compare outcomes between different healthcare service providers, also at an international level, and therefore create incentives for a value optimization of care that is as comprehensive as possible. This is the goal of the International Consortium for Health Outcomes Measurement (ICHOM), a non-profit organization established in 2012. Back pain treatment, for example, can differ significantly in the U.S. and India, but the decisive factor is the result for the patients. If there are globally applicable valuation standards, they enable competition between the best care processes and structures.

The development of these standards for various diseases is, of course, not a trivial matter. “Indeed, we want to measure outcomes that matter to people – but how do we do that? That is a real challenge,” describes Thomas Kelley, Vice President at ICHOM. It must always be determined what, when, and how measurements should be taken when talking about patient-relevant outcomes. ICHOM has managed to develop over 20 disease-specific sets of patient-relevant outcome indicators in an international and multi-disciplinary process involving patients. They cover diseases that account for approximately half of all global disease burdens. Approximately 600 healthcare organizations around the world have already adopted at least some of these indicator sets for their quality management, reports Kelley.

One prominent example is the National Health Service (NHS) in Wales, which has implemented the ICHOM standards in all its hospitals. This fundamental restructuring is not just a chance to increase the value of healthcare across the board, but also to eliminate economic inefficiencies, says Alan Brace, Director of Finance, Health, and Social Services with the Welsh government. For example, the treatment of severe gonarthrosis is not just about optimizing the prosthetic surgery process; doctors have to ask themselves whether a prosthetic knee would be beneficial to the patient, which is not always the case, in order to then restructure and distribute the existing budgets more precisely. In the meantime, it is becoming clear that this strategic outcome-oriented approach – including “value-based procurement and payment” – could contribute to the financial recovery of healthcare structures in the Welsh NHS, Brace explains.

Reorganizing the care delivery network

“Focusing on value-based healthcare is a natural step forward,” confirms Morton Kildal, Head of Value-Based Health Care Transformation at Uppsala University Hospital, Sweden. The challenge extends beyond mere lean workflows and processes in the establishment of patient pathways that must be created by interprofessional teams with a common goal for specific problems and “subjects,” such as certain cancers or diabetes.

“Yesterday, we had clinical specialties – today, we have patient pathways,” agrees Anna Göjeryd Ulander, Head of the Healthcare Transformation Office at Karolinska University Hospital in Sweden. As one of Europe’s largest and most innovative hospitals, Karolinska University Hospital has started to completely abolish the traditional boundaries between individual disciplines and departments. Instead, it is organizing specific patient pathways through network-based management teams for which hundreds of specialized care managers were hired. These management teams include researchers and patients in addition to doctors, nurses and administrators. Karolinska University Hospital hopes to complete this transformation into a fully developed value-based and patient-based healthcare provider by 2022, which will be supported by digital platforms and tools, and to also integrate holistic outcome and cost analyses for patient flow costs as standard across the supply chain.

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