



Value-based healthcare
at Martini Hospital



Menne Kees Dijkstra
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Where?
Groningen, The Netherlands

The road to **value-based healthcare**

At Martini Hospital in Groningen, “Working together for the best care” is their motto.

Martini Hospital wants to move more healthcare out of the hospital by allowing the patient to participate, engaging in better collaboration both regionally and nationally, and supporting healthcare professionals in achieving their goals.

Shared-decision making

In 2015, that perspective highlighted the need to make consultations more effective and person-focused. The hospital sought the solution to that need in shared decision making. Shared decision making enables the provider and patient to make joint decisions about follow-up on treatment during the healthcare process, by mapping out the patient's needs and taking a close look at possible treatment options.

Data on the patient's needs and experiences before, during and after treatment are the foundation of value-based healthcare. This input is used in research and benchmarking to improve the quality of care and to reduce costs.

Martini had several requirements that a shared decision-making solution needed to meet. The focus was on ease of use for the patient, support and relief for the healthcare professional, internal control over application management, and internal control over data provided to parties such as the Dutch Institute for Clinical Auditing (DICA) and the National Register of Orthopedic Implants (LROI).

The solution also had to be implementable across the hospital to prevent the creation of ‘a system for every tiny problem’. The integration investment had to provide accountability and support existing workflows. All in all, it was a broad set of requirements that required an integrated, future-proof solution within the context of the Electronic Medical Record (EMR).

Collecting, comparing and reporting on care outcomes

After searching the market, Martini Hospital found their solution in Philips QuestManager. It allows the hospital to collect, compare and report on results to both patients and healthcare providers. By analysing the data, Martini Hospital can identify best practices that help improve care.

QuestManager features a dynamic dashboard that supports the provider and patient in making joint decisions in the doctor’s office. All information from QuestManager is directly available within the EMR, since data from the EMR is already integrated into Martini Hospital’s systems.

Data that can be used daily

In January 2016, the prestigious project went live. That meant a significant amount of usable data became available and was delivered to healthcare providers every day. This data is structured in such a way that it provides support to both the patient and the professional. “IT often seems to be a secondary factor, but measuring results allows us to provide patients with better, more personalized treatment. In the future, patients may be able to choose the best healthcare provider for their condition using this type of data,” says Menne Kees Dijkstra, eHealth advisor at Martini Hospital. It’s a key driver for Dijkstra. “In two years’ time, someone may be able to walk better because they used treatment results to choose the right treatment for their knee.”

As part of Santeon, Martini Hospital shares results with their seven sister hospitals. Since they use standardized questionnaires and identical workflows, the data can be used for things like benchmarking. “What does a score of 80 mean if you don’t have any basis for comparison?” says Dijkstra. Santeon’s vision is in line with the desire of a number of insurers to increasingly incorporate healthcare outcomes in purchasing care.



Value-based healthcare

10 years ago, Michael Porter and Elizabeth Olmsted Teisberg introduced value-based healthcare in their book “Redefining Healthcare”.

The idea behind value-based healthcare is simple. The value of care is determined by the outcomes of the care provided in relation to costs incurred: on the one hand, measuring the outcomes experienced by the patient, and on the other, the costs incurred as part of the healthcare process. The goal of value-based healthcare is to deliver the best quality of care for the patient and to reduce healthcare costs.

Getting started with value-based healthcare is relatively simple; collecting results is a good start.

Basis for successful implementation

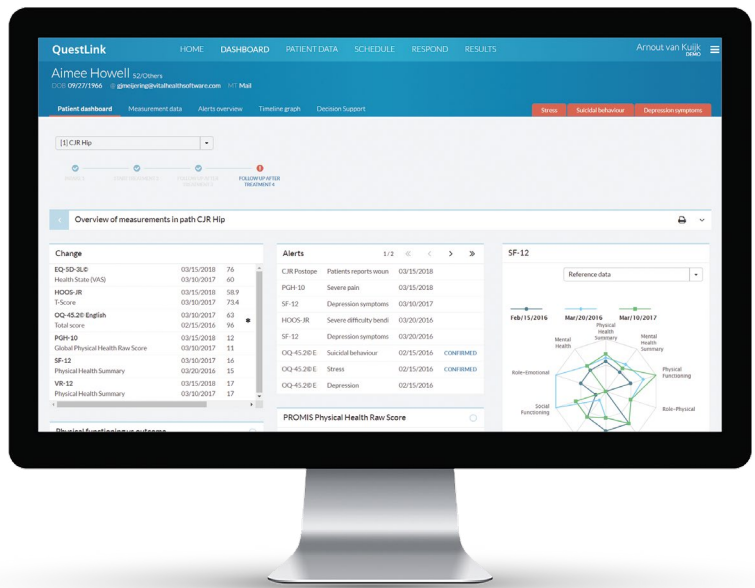
A successful implementation of outcome measurements depends on the enthusiasm and commitment of the care providers. When Martini's healthcare providers want to start working with outcome measurements, the hospital provides a clear picture of how outcome measurements can be used for the department in question.

Then comes the entire process, from PROMs (Patient Reported Outcome Measures) and PREMs (Patient Reported Experience Measurements) theory to the practical side: the logistics of setting up and using the results of questionnaires in treatment. Martini Hospital is committed to making it a success and having everyone on the same page.

Digital medical history

To structure consultations more efficiently, Martini Hospital has taken outcome measurements one step further. In consultation with Philips, the hospital looked at how the systematic measurement and evaluation of results could be combined with a preliminary medical history provided by the patient.

By using a digital medical history, the available consultation time can be scheduled and used more efficiently and effectively. The patient is better prepared for the consultation and the treating physician can ask more specific questions during the consultation. The comprehensive medical history provided by the patient is used to make sure the appointment has been scheduled with the right care provider; this can be adjusted if needed.



The process is as follows: when a patient is sent to Martini Hospital, they are asked to complete a survey in QuestManager. The patient receives an e-mail link to the digital medical history survey. Once the survey is completed, QuestManager generates a patient-specific report, which the provider can access at the touch of a button in the hospital information system. This patient-specific report is used both in preparation for and during the first appointment.

Analysing and improving care

At the end of 2015, Martini Hospital started the rollout of QuestManager in the hospital. In the first 6 months, the Orthopedics, Gynecology and Psychiatry departments, as well as the Sleep Centre and Headache Centre, started working with QuestManager surveys.



New PROMs questionnaires were then added in response to department needs.

New departments, including Geriatrics, Parkinson's Point, and the Gastroenterology outpatient clinic, then started using QuestManager. New PROMs questionnaires were added based on department needs. QuestManager data was used not only for internal quality and analysis, but also for benchmarking within the Santeon hospital group. In the future, Martini will benchmark internationally in collaboration with the International Consortium for Health Outcomes (ICHOM).



Martini Hospital

Martini Hospital is a top-tier clinical teaching hospital that prides itself on providing a wide range of specialized medical care in a welcoming environment. The hospital works closely with general practitioners and other care providers to provide the best care possible. The patient's care needs are always the starting point.

As an organization that prioritizes sustainability, Martini Hospital is aware of its corporate social responsibility and invests in the long-term and sustainable employability of its staff.

Based in Groningen, Martini Hospital is part of Santeon, an alliance of seven hospitals across the Netherlands. Santeon was founded in 2010. It originates from the Association of Cooperating Hospitals, aimed at stimulating open collaboration between the seven Santeon hospitals to improve medical care through continuous innovation.

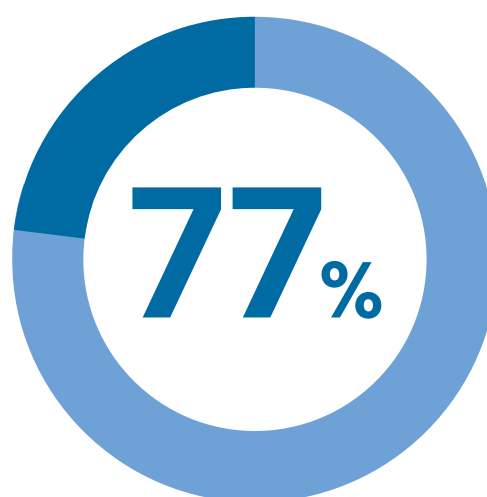
High response rate

Martini Hospital boasts a 77% response rate for surveys sent out before initial consultations*. The hospital is very satisfied with this high response rate. According to Dijkstra, this percentage can primarily be attributed to good communication. "We don't send any questionnaires without clearly communicating about it to the patient beforehand." Martini Hospital lets the patient decide when to fill out a questionnaire, but encourages them to fill them out at consultations as well.

According to Dijkstra, involving the patient at the onset directly contributes to a higher response rate. In addition, Dijkstra thinks that the high response rate can be linked to the fact that it's about people's health. "People can understand that it's important. When they fill out a questionnaire, it's serving a higher purpose."

Another thing that became clear during this project is that communication can always be improved. During the course of the project, the hospital discovered communication bottlenecks, which were gradually solved: "There was once an elderly patient who, after completing the questionnaire online, printed it out and sent it to the hospital. What makes sense to developers doesn't necessarily always make sense to

the patient. Fortunately, solutions can also be simple: at the end of a questionnaire, it says that the hospital has received the answers and there's nothing more the patient needs to do. That's a small change, but it improves the process," explains Dijkstra.



response rate to questionnaires before the first consultation.

*2018 Martini Hospital Orthopedics Intake Survey Report (not available to the public)

“IT often comes second, but measuring results allows us to provide patients with better, more personalized treatments. In the future, patients may be able to choose the best healthcare provider using this type of data.”

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Personalized healthcare

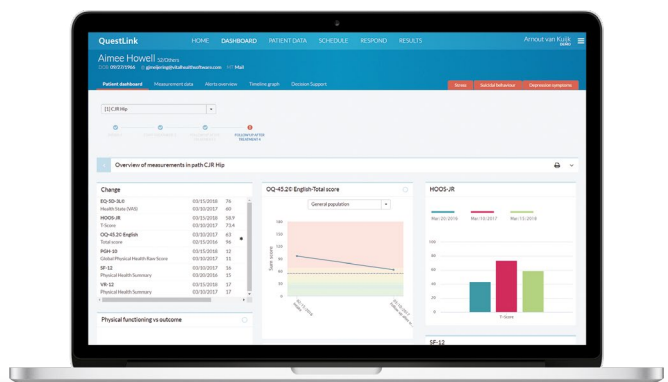
Developments are still ongoing at Martini Hospital. Over the next few years, the emphasis will be on digitizing certain processes with the aim of improving care. Not only are new questionnaires being designed, but work is also being done on achieving further integration with the EMR and giving patients access to their measurements in the patient portal.

The hospital is also working on linking consultations to questionnaires. For example, QuestManager is notified when a consultation is scheduled in the hospital information system. QuestManager then automatically sends out the initial questionnaire. If the appointment changes, the deadline for completing the questionnaire also changes. Philips already implemented this flow at other locations. However, that is not the only information provided. After completing the survey, the patient could receive a brochure with information on how to get to the outpatient clinic, including an overview of parking options. Surveys help patients prepare for appointments, which in turn supports shared decision-making.

There are two important aspects in the integration of the EMR at Martini. On the one hand, Martini Hospital aims to connect QuestManager data to data in the EMR. This establishes a connection between aspects such as logistical information – what treatment the

patient has already received and what medicines and therapies were used – and patient experiences. These connections allow for the facilitation and evaluation of information across the entire care pathway.

Providing the best possible care at the right price: that is the ultimate goal at Martini Hospital. Ideally, the patient should get an insight into their treatment results, in consultation with the treating physician. They should be able to work with the care providers to make choices about their treatment based on their own desired outcomes and the care professional's expertise. Choices will differ per patient and condition. That is why Martini focuses on delivering personalized care that is both valuable and value-driven.



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QuestManager for hospitals

QuestManager allows hospitals to use a single centralized application for requesting and processing outcome measurements. This means hospitals can avoid an excess of questionnaire systems and paper test forms: data is available from a central access point. QuestManager can be linked to the EMR or patient portal to support hospital procedures in all specialized medical fields.

QuestManager, like all other Philips solutions, is based on the Platform, a modelling software development environment for healthcare. The Platform was designed specifically to facilitate rapid implementation of (cloud-based) eHealth solutions and integration with existing systems.



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