

BETTER
BREAST CANCER CARE
THROUGH COLLABORATION



CARE FOR IMPROVEMENT



EDITION

2017

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Continuously add value for the patient

Santeon is the Dutch hospital group in which seven top clinical hospitals collaborate openly with the aim of improving medical care through continuous innovation. What makes our collaboration unique is that our professionals work together. They compare the results of treatments and learn from each other. This means care improves continuously. This is unique in the Netherlands. We are the only hospital group that collaboratively investigates like this. The seven Santeon hospitals are spread throughout the Netherlands. In total, more than 28,400 people work there, including about 1,800 medical specialists. One-in-eight patients visits a Santeon hospital.

Since 2012, Santeon has been regularly publishing care outcomes for oncological conditions in various books. To make better use of the improvement potential that exists in the differences in outcomes between hospitals, improvement cycles were implemented beginning in the spring of 2016. Systematic outcomes that patients find relevant are measured. The differences that arise from this are investigated and improvements are implemented. The aim of this Santeon value-based health care programme (VBHC) is to work together to *achieve faster and better outcomes for patients*. Better outcomes go hand in hand with greater efficiency.

The improvement cycles have now been implemented for six conditions. A total of approximately 350 people from all Santeon hospitals were involved. We have developed a VBHC method in which doctors and treatment teams from the seven hospitals, together with patients, structurally learn together by discussing variations in outcomes and treatment options. These teams then implement the improvements at their own hospitals. In this way, the best practice method becomes the standard for all seven hospitals.

In this publication, we will share the outcomes and initial results of the improvements we have implemented in the field of breast cancer care. We are proud that our professionals have established a base of trust in order to work together and learn from each other, so we can demonstrably improve the outcomes of our breast cancer care.

Douwe Biesma, Chairman of Santeon.



Effective improvement in care

In 2016, Santeon breast cancer professionals implemented the value-based health care (VBHC) improvement cycle to more rapidly improve the value of their patient care. After a period of about one-and-a-half years, it is clear that Santeon's VBHC method effectively improves care.

This publication describes the approach and results of the breast cancer improvement cycle so far: the data that was compared and the actions that were taken (to determine the cause of the observed variation), concrete changes that have been made to the working methods and the results that this has delivered.

Santeon has put together a methodology advisory council that discusses the method, the data and the analyses and critically evaluates them. All the indicators, analyses, outcomes and insights shared in this publication have also been discussed by the advisory board, and their recommendations have been incorporated into this publication. This board consists of methodological experts in the fields of VBHC, validation and data analysis. From a clinical management, public health and decision sciences perspective, they share their expertise in the field of outcome indicators and the selection process.

HILLE WITJES
BREAST CANCER SURGEON AT OLVG

'With this process, we further examine the results. We look at where there are differences that are worth further investigating to make improvements. We use a scorecard between the seven hospitals to compare the outcome, cost and process indicators that patients find important. What do I find special about this way of working? That every two months, each hospital brings together the entire breast cancer team, including patients.'



Faster improvement in a structured improvement cycle

METHOD IMPROVEMENT CYCLE WITH IMPROVEMENT TEAM

The breast cancer improvement cycle has been implemented in the Santeon hospitals since the beginning of 2016. Every six months, Santeon-wide, not only outcomes but also cost and process data for breast cancer care are collected. Professionals from each hospital compare that data with each other and look for improvement opportunities.

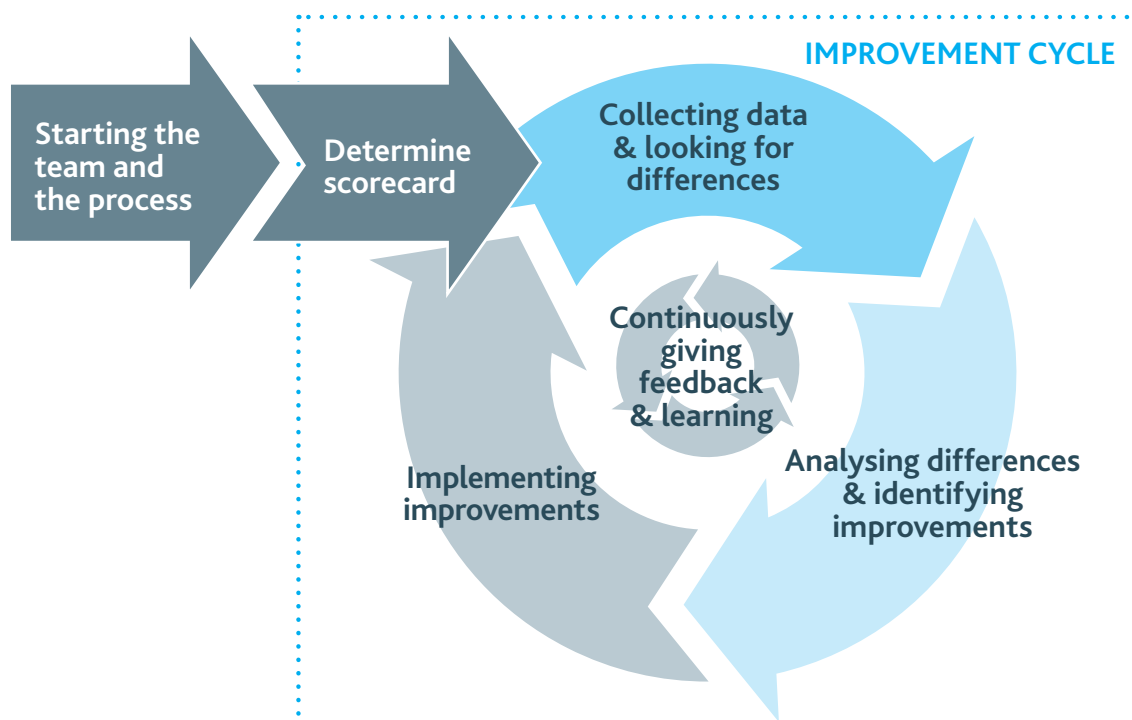
At each hospital, an improvement team has been formed consisting of doctors, nurses and other professionals who have a role in the patient's care process. This improvement team is supervised by a project manager and a data analyst. One or two patients (who are or have been treated in the hospital concerned) are also members of the improvement team. They help the professionals think about what

the patients consider to be important outcomes and process measures in the care process. When considering how to improve care, they particularly draw on their own personal experiences. These patients are, therefore, a very valuable addition to the improvement teams.

As soon as data has been discussed in the Santeon context, the improvement teams begin their efforts. Each hospital has its own improvement team.

They come together every two months. The team selects subjects for improvement, investigates causes of differences (among other things by exchanging experiences and working methods with the other hospitals) and introduces tangible improvements. Data is collected again after six months. Then the next cycle of searching for variation, finding causes and implementing improvements begins (see improvement cycle **FIGURE 1**).

FIGURE 1 Santeon VBHC Improvement Cycle





JUDITH
WAGELAAR,
a patient at Medisch
Spectrum Twente in
Enschede and part
of the breast cancer
improvement team
at that hospital.

'As a patient, I was asked what could be improved in the care process. I indicated that too much time passes before you find out the results of the mammography. You want to know that as quickly as possible and not have to wait in uncertainty at home. They listened to me and adjusted the process. Mammography results are now shared with patients on the same day.'

DETERMINE SCORECARD

At the start of the breast cancer improvement cycle, the improvement teams jointly determined, in three steps, which data would be compared in a so-called scorecard, see **FIGURE 2**.

1. Patient selection

The first step was to select a uniform patient group for each hospital. The decision was made to only look at the results of patients who had been diagnosed at their own hospitals. Patients diagnosed elsewhere were not included. The overview of all inclusion and exclusion criteria is in **TABLE 1**.

For these breast cancer patients, all potentially relevant characteristics were also collected, such as

the age of the patients, the anaesthetic risk and the clinical tumour stage.

Patients from OLVG are relatively younger than those from the other hospitals. This may affect the outcomes, including survival (see **FIGURE 3**).

The anaesthetic risk at Catharina Hospital appears to differ from that of the other hospitals. However, it is unclear what the cause of this is (see **FIGURE 4**).

It is apparent that the distribution of the tumour stage slightly differs per hospital and that the patients of MST have a relatively higher tumour stage than the patients of the other hospitals. (see **FIGURE 5**).

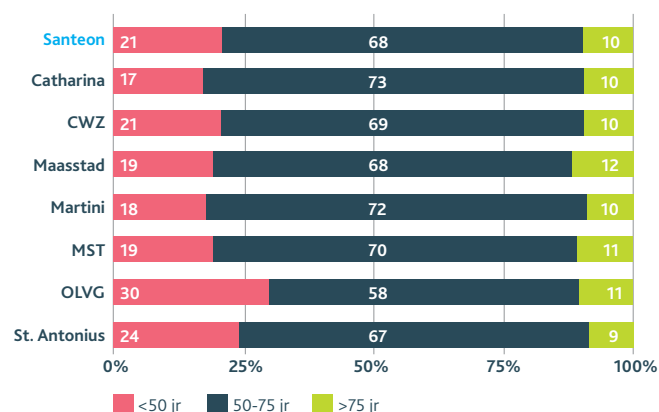
FIGURE 2 Three steps to arrive at a scorecard, per condition



TABLE 1 Breast cancer patient selection for Santeon's VBHC programme

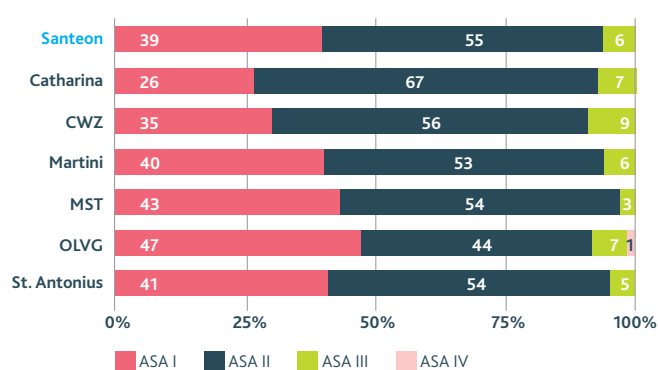
INCLUSION CRITERIA
All patients who have undergone an operation and have a diagnosis of malignant primary breast tumour <ul style="list-style-type: none"> Includes stages 0-III, invasive breast cancer carcinoma and DCIS Diagnosed at one of the Santeon hospitals
EXCLUSION CRITERIA
<ul style="list-style-type: none"> Patients with a tumour in both breasts Suspicion not leading to diagnosis Men with breast cancer Patients with an unknown stage Patients who were (immediately) referred to a different hospital Rare tumour types with deviating treatment Patients with a distant metastasis

FIGURE 3 Age distribution of breast cancer patients, per hospital



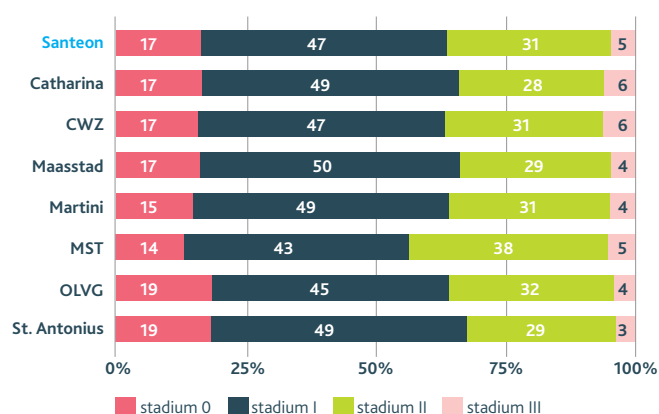
Source: IKNL, breast cancer patients (stages 0-III) diagnosed at a Santeon hospital in the period 2011-2016
due to rounding, not all percentages add up to 100%

FIGURE 4 Distribution of patients to ASA (anaesthesia risk) score, per hospital



Source: IKNL, breast cancer patients (stages 0-III) diagnosed in a Santeon hospital in the period 2011-2016
due to rounding, not all percentages add up to 100%

FIGURE 5 Distribution of clinical tumour stage (cTNM), per hospital



Source: IKNL, breast cancer patients (stages 0-III) diagnosed in a Santeon hospital in the period 2011-2016
due to rounding, not all percentages add up to 100%

2. Treatment options

The teams then identified the different treatment choices (the second step). This included all the possible options that patients have. Both the treatment options that are available at their own hospital and the treatment options that have taken place at other hospitals (e.g. radiotherapy).

FIGURE 6 is an overview of the treatment options.

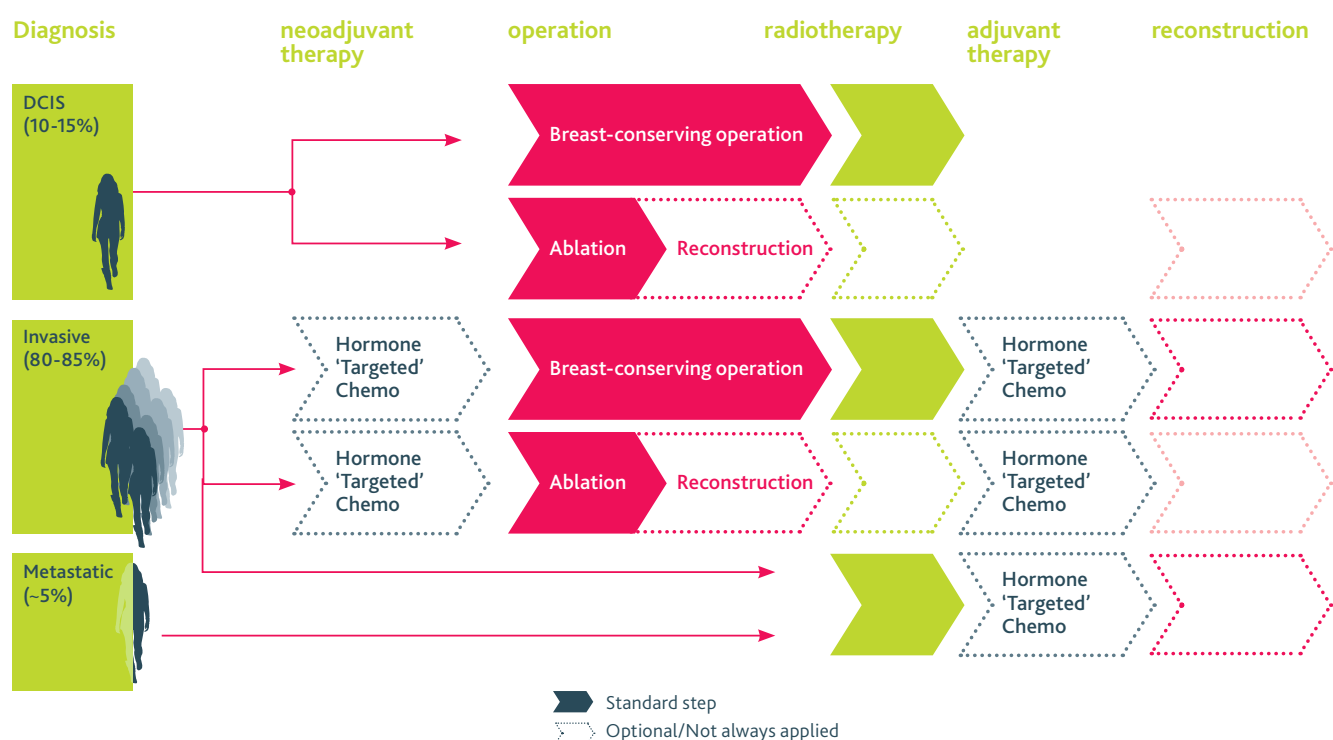
Prior to an operation, neoadjuvant therapy can be chosen for a number of situations. The goal of neoadjuvant therapy is to reduce a tumour such that a subsequent operation is easier to perform (**FIGURE 7**).

The percentage of patients with neoadjuvant therapy increased in almost all Santeon hospitals in the period 2013-2015.

When surgically removing a tumour, depending on the tumour's characteristics and the choice of the patient, a lumpectomy (breast-conserving operation) or ablation (mastectomy operation) can be performed. The number of breast-conserving operations in almost all Santeon hospitals increased in the period 2014-2016 (**FIGURE 8**).

Due to developments in diagnostics, both in pathology and in radiology, better treatment choices can be made. The guideline also better describes in which cases neoadjuvant therapy and breast-conserving operation is recommended. As a result, the percentage of patients with neoadjuvant therapy and breast-conserving has increased in recent years in almost all Santeon hospitals, as expected.

FIGURE 6 Overview of breast cancer care treatment options

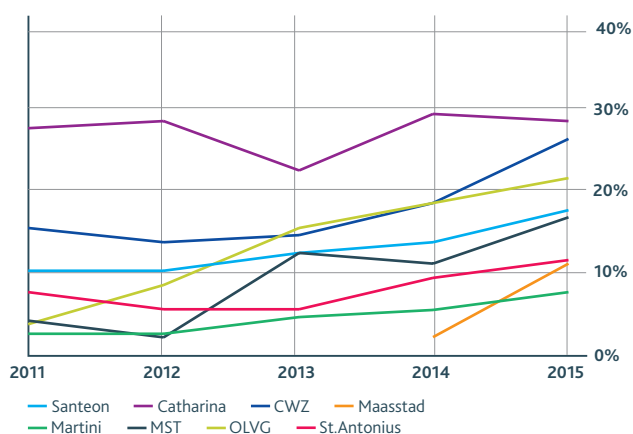




from left to right: José Meulepas (project leader), Jorien Pruim (nursing specialist), Daisy Pieterse (data analyst), Yvette van der Zande (data analyst) and Hetty Prinsen (data manager).

FIGURE 7

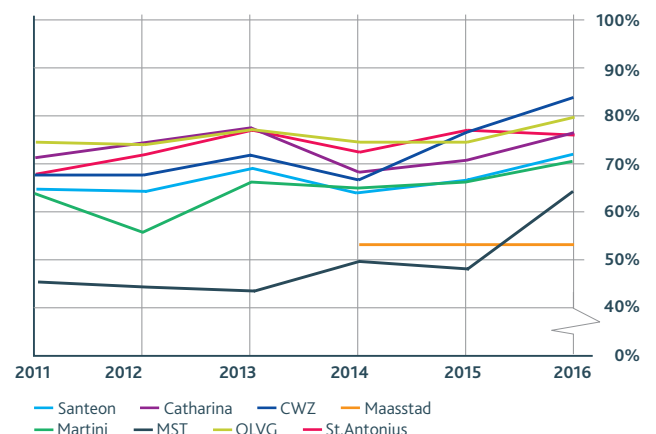
Patients with neoadjuvant therapy, per year



Source: IKNL, breast cancer patients (stages 0-III) diagnosed in 2011-2015 Neoadjuvant therapy data for patients diagnosed in 2016 is not available for all hospitals.

FIGURE 8

Patients with breast-conserving operations, per year



Source: IKNL, breast cancer patients (stages 0-III) diagnosed in 2011-2016

3. Scorecard

In the third step, the teams established a joint scorecard (**FIGURE 9**) with the outcome indicators that were most important to patients, the main cost drivers and the process indicators.

The guiding principle for the teams was not to develop new outcome indicators. The outcome indicators on the scorecard were based as much as possible on the existing set of international outcomes from ICHOM (International Consortium for Outcome Measurement) and other existing indicator sets. In addition, the choice was made to compare previously recorded data from organisations like the Netherlands Comprehensive Cancer Organisation (IKNL), the Dutch Institute of Clinical Auditing (DICA) and the electronic patient records (EPDs) from each hospital. This means that new data was not registered at the start of the improvement cycle.

The largest cost categories in the treatment of breast cancer were analysed to determine the cost indicators. Next, the most important cost driver for those categories was determined (e.g. hours, frequency, etc.)

Process indicators concern important turnaround times for the patient. The patients on the improvement teams indicated that the maximum waiting time of five weeks between diagnosis and starting treatment, which every hospital is obliged to register, was not that important to them. For them, it was much more important to minimise the waiting time between the diagnosis and gaining clarity about the treatment plan or minimising the time of uncertainty. Or, as one of the patients said, 'that period of uncertainty was worse than the chemo'. That indicator has become part of the scorecard.

Breast cancer scorecard

OUTCOME INDICATORS	1	Five-year survival rate, unadjusted (%)
	2	Repeat operations after a positive margin (%)
	3	Repeat operation after post-operative complications (wound infections and post-operative bleeding) (%)
	4	Unplanned admission, deviation from treatment plan and/or heart failure after systemic therapy (%)
	5	PROMs: Quality of life (well-being, functioning, pain, etc.)
	6	PROMs: Specific symptoms as a result of treatment (breast, arm, vasomotor)
	7	Local relapse within five years after the first operation (%)
COST INDICATORS	1	Nursing days per patient (number of days)
	2	Primary breast-conserving operation without hospitalisation (%)
	3	OR time, per patient (minutes)
	4	Outpatient clinic consultations, per patient (number)
	5	Additional diagnostic activities (MRI, PET, CT, MammaPrint), per patient
	6	Use of expensive medicines
PROCESS INDICATORS	1	Duration from referral to first clinic visit
	2	Duration from first clinic visit to diagnosis (AP report)
	3	Duration from diagnosis (AP report) to discussion of the treatment plan
	4	Duration from discussing the treatment plan to starting treatment
	5	Duration from discussing the treatment plan to starting treatment
	6	Dedicated contact person who supervises the patient and is known to the patient (%)
TREATMENT MIX		% of patients per treatment option (e.g. breast-conserving, direct reconstruction)

COLLECTING AND DISCUSSING DATA

Data is now collected three times during the improvement cycle. This is uniformly executed at all of the hospitals. At each hospital, the data is validated by the professionals involved and then shared and discussed with colleagues from the other Santeon hospitals.

The improvement cycle involves examining what has happened at each hospital for a uniformly selected group of patients that have been followed in each hospital over the same period. The outcome, cost and process data are not case-mix adjusted. All possible patient characteristics that could explain variation (age, comorbidity, tumour class, etc.) are also collected for any further analysis.

The data that is compared is not the result of scientific research or scientific evidence and is not accountable. The data can only be used to search for

hypotheses for improvement. No conclusions can be drawn about the performance of the hospital.

If a variation is observed, the improvement teams discuss whether it is interesting enough to investigate it further.

Internally — both within and among the Santeon hospitals — the data from the scorecard is shared and discussed in confidence. In order to guarantee this mutual trust, only those outcome indicators whose data is considered sufficiently stable are shared externally (not all outcome indicators are simple and clear to collect, which makes them difficult to compare and interpret). The cost and process indicators are only shared externally if changes that represent an improvement for patients have been effected in the care process.

ANNETTE VAN DER VELDEN
INTERNIST
ONCOLOGIST
MARTINI
HOSPITAL

‘When comparing our data, we do not worry about the differences. The point is to look at which indicators you score lower on than other hospitals. From that point, you try to find where the cause may lie, plus what you can learn from your colleagues at other hospitals with better scores. Incidentally, every hospital scores higher on some things and lower on others. If we all improve in the areas where this is possible, we will reduce the variation.’

YVONNE VAN RIET
BREAST CANCER
SURGEON AT
CATHARINA HOSPITAL

‘The internal transparency is very high, and you can ask for help. We are now able to hold discussions in all areas about practical matters, on a surgical, but also on a nursing and internist level. Being able to watch each other is extremely valuable. We know each other and trust each other. We use the figures as support to openly talk with each other. That is also the difference with other data which is often anonymous. This data is not anonymous; we are all honest and open and are all at risk. We all want to get better in our profession, and this helps.’



MARJOLEIN PLEUNIS,
INTERNIST ONCOLOGIST
AT MST

EINO VAN DUYN,
SURGEON AT MST

ANNETTE VAN
DER VELDEN,
INTERNIST ONCOLOGIST
AT MARTINI HOSPITAL



MAUD GEENEN,
INTERNIST
ONCOLOGIST
AT OLVG

HILLE WITJES,
BREAST CANCER
SURGEON AT OLVG

RON KOELEMIJ,
SURGICAL
ONCOLOGIST
AT ST ANTONIUS
HOSPITAL

YVONNE VAN RIET,
BREAST CANCER
SURGEON AT
CATHARINA HOSPITAL

LUC STROBBE,
SURGEON AT CANISIUS
WILHELMINA HOSPITAL

Improvements in breast cancer care so far

The teams have completed the improvement cycle for breast cancer care three times since its start in 2016. For these improvement cycles, the multidisciplinary teams chose subjects that they expected to be able to improve on. For a few indicators, the following is described below: the variation observed during the first data collection, the follow-up actions that were taken and what was measured in the third improvement cycle. It concerns outcome indicators for which the data could be properly compared and a cost indicator that is directly relevant to the patients. Maastricht Hospital has only been involved since July 2017; therefore, it does not appear in all the figures.

1. FIVE-YEAR SURVIVAL RATE

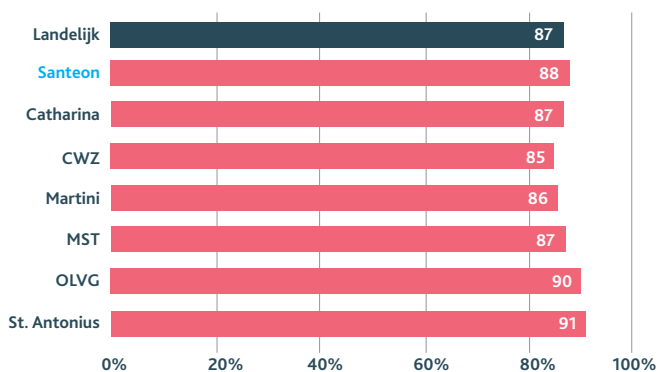
The five-year survival rate indicates the percentage of patients still alive after five years. This indicator concerns the five-year survival rate of all the breast cancer patients, with tumour stage 0-III, who were diagnosed at Santeon hospitals in 2011. The choice for patients from 2011 was made because only patients who have been followed for five years after their diagnosis have been included. Due to the small numbers, the survival rates have not been (statistically) adjusted for patient characteristics. Moreover, the reason for death is unknown, which means that the disease-free survival rate cannot be calculated.

From the comparison of the data, the improvement cycle showed that the Santeon average (88%) corresponds to the nationwide relative survival rate of 87% (source: www.cijfersoverkanker.nl). This national figure has been adjusted, which means that the expected mortality in this age category is taken into account.

The Santeon hospitals show a survival rate of 85-91% for patients diagnosed with breast cancer in 2011 (see **FIGURE 10**). Per hospital, this percentage fluctuates per year (around 85-90%, not in the figure). The survival percentage at St Antonius Hospital and at OLVG is higher than the Santeon hospital average. Because the difference is relatively small, the numbers are not large and the data cannot be case mix adjusted; the improvement teams have jointly opted not to analyse the survival rate data at present. They will, however, continue to monitor the survival of this group of patients and new groups of patients after 2011.

FIGURE 10

Unadjusted five-year survival rate per hospital



Source: Santeon - IKNL, Nationwide - cijfersoverkanker.nl (2008-2012); this concerns the relative mortality

2. REPEAT OPERATIONS AFTER A POSITIVE MARGIN (TUMOUR TISSUE LEFT BEHIND)

Another indicator that showed variation was the number of repeat operations after positive margins were measured in patients with a breast-conserving operation. The percentages for patients who received a diagnosis in 2014 and 2015 ranged between 3%-11% (**FIGURE 11**).

Canisius Wilhelmina Hospital carried out an in-depth analysis to determine what the cause of the variation

could be. This showed that the cause was probably related to three different aspects. Determining whether or not there is a positive margin by the pathologists, whether an operation is needed after a positive margin has been established and the operation itself.

After the first cycle, Canisius Wilhelmina Hospital took action on all three aspects. In the analyses a year later (Cycle 3, see **FIGURE 11**), the percentage of repeat operations after positive margins in Canisius Wilhelmina Hospital had dropped to 4%.

Canisius Wilhelmina Hospital made the following three improvements to lower their relatively high number of repeat operations after positive margins:

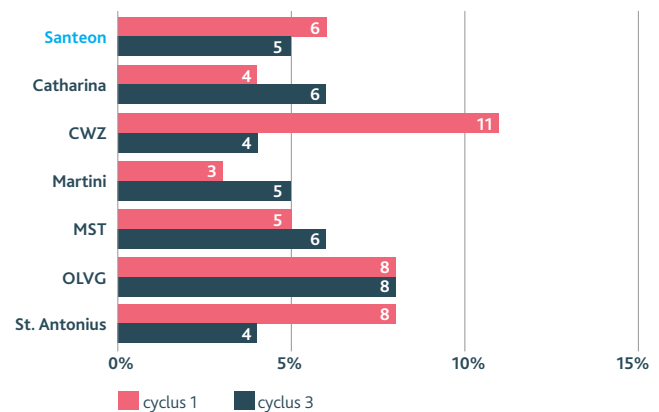
- During the operation, if the tumour is visible via ultrasound, operation is now performed with the ultrasound there. This means the surgeon can better assess whether the excision is big enough during the operation.
- Everyone at the multidisciplinary consultation (MDO) is notified of the fact that the positive margins were higher than at the other Santeon hospitals. And that more repeat operations took place. Now there is not only discussion about the assessment but also about how breast-conserving treatment is being approached. Whether a repeat operation is useful in the case of positive margins is also being explicitly discussed. The guideline will, of course, remain the basis here.
- Finally, the pathologists at Canisius Wilhelmina Hospital discussed the definition of a positive margin and how it is looked at on the national level. This has no influence on the reduction of the positive margins, but it makes the measurement more reliable and the spread over time smaller. One of the pathologists examined the national definition of positive margins and came to the conclusion that there is national agreement on the definition, but that there are differences in the interpretation of the margins by pathologists in practice.

3. REPEAT OPERATION AFTER POST-OPERATIVE COMPLICATIONS

Another indicator concerns the percentage of repeat operations as a result of two types of complications: post-operative bleeding and wound infections.

FIGURE 11

Patients who underwent a repeat operation after a positive margin in a breast-conserving operation



Cycle 1: Breast cancer patients diagnosed at a Santeon hospital in 2014/2015

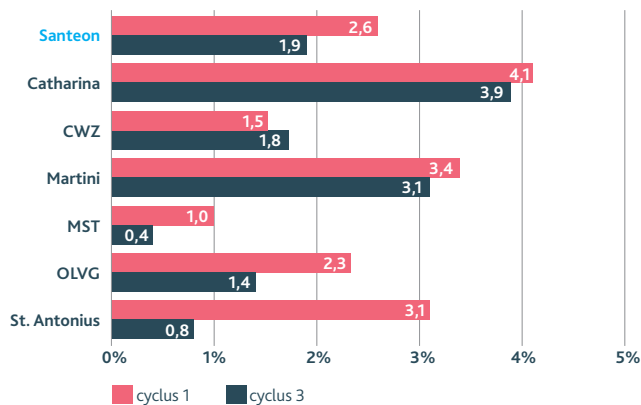
Cycle 3: Breast cancer patients diagnosed at a Santeon hospital in 2016

Source: NBCA from IKNL

A repeat operation is annoying for the patient and often also means that follow-up therapy, such as radiotherapy, has to be postponed. The percentages for repeat operations after a complication are low at all of the hospitals. Yet, for this indicator, there appeared to be a factor of 4 in the difference between the highest and lowest scoring hospital (**FIGURE 12**). Further analysis showed that the variation was mainly in the number of reoperations performed as a result of post-operative bleeding and not in the number of repeat operations after infections.

LUC STROBBE
CANISIUS WILHELMINA HOSPITAL 'The ultrasound during the operation provides more certainty about the margins, so you are more confident.'

FIGURE 12 Repeat operation after complications



Cycle 1: Patients diagnosed in 2014/2015

Cycle 3: Patients diagnosed in 2016

Source: Patient selection on the basis of NBCA from IKNL, repeat operations based on DBC, manual reason for the repeat operation

RON KOELEMIJ,
ST ANTONIUS
HOSPITAL

'Other surgeons have adopted this technique. This improvement is, therefore, a direct consequence of comparing each other's figures and methods. This effect has also been discussed in the Santeon context.'

**YVONNE
VAN RIET**
CATHARINA
HOSPITAL

'Although (fortunately) small numbers are involved and we cannot use statistics, we can talk about this in a Santeon context, by making inquiries with colleagues. After consultation with Santeon colleagues, we also discussed with our anaesthesiologists that we want to keep a close eye on temperature and blood pressure during the operation. We also want to rinse away blood clots where necessary so we can see haemorrhages better. We also compared the anticoagulant policy with another hospital, but there were no new insights.'

At St Antonius Hospital, it was found that patients from one of the plastic surgeons had fewer follow-ups than the patients from other plastic surgeons. Analysis of that surgeon's method showed that a patient's wound was rinsed for a long time during an operation. The other surgeons at St Antonius Hospital have since adopted this method.

At the next measurement six months later (Cycle 3, see **FIGURE 12**), the percentage of repeat operations after complications at St Antonius Hospital was lower than in the previous measurement. This procedure — the wound rinsing and the monitoring of temperature and blood pressure during the operation — was also discussed with the team from the Catharina Hospital, where the post-operative bleeding was at a higher level. Catharina Hospital has since implemented this method, but the adapted method has not yet led to improvement. The cause is unclear at the moment.

This indicator will continue to be measured to monitor whether the reduction in the number of repeat operations after complications at St Antonius Hospital is of a permanent nature and also whether the new method will provide results at Catharina Hospital.

4. PATIENTS WITH A BREAST-CONSERVING OPERATION IN OUTPATIENT TREATMENT:

From the analysis after the first measurement, the percentage of patients with a breast-conserving operation that was helped in outpatient treatment turned out to be between 20%-79%. The Santeon average for patients with this diagnosis in 2014-2015 was 56% (**FIGURE 13**).

All of the improvement teams thought that the percentage of breast-conserving operations in outpatient treatment would be around 85%. Because it is better for a patient to stay in the hospital for as short a time as possible, three hospitals made the choice to see what could be done to treat more patients with breast-conserving operations in outpatient treatment (no overnight stay).

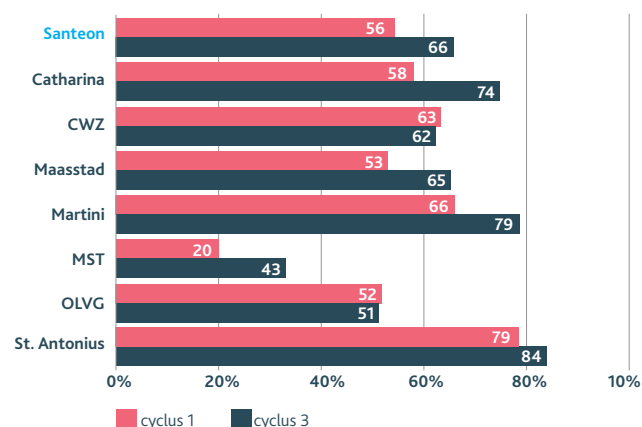
Catharina Hospital performed additional analyses to see if there was a connection between the age or the home situation of a patient and the choice of whether or not to have a breast-conserving operation in outpatient treatment. It turned out that whether or not a patient could be operated on in outpatient treatment had little to do with patient-related variables. The cause lay more in the communication between the departments involved and the patients. Communication proved to be inconsistent. Based on this insight, Catharina Hospital improved the communication between the departments involved and changed the communication with patients.

At St Antonius, they also looked at options for increasing the number of breast-conserving operations during outpatient treatment. They found that a large number of patients could not go home on the day of the operation because they received morphine as pain relief after the operation. A side effect of morphine is nausea. This was a reason to see whether the number of patients receiving morphine could be reduced. Now patients receive a nerve block right before the operation — a numbing of the nerves, so that the patient is free of pain for the first 24 hours. Paracetamol then suffices so that those patients no longer need to receive morphine. If possible, local anaesthesia is also now used instead of general anaesthesia during the operation.

Martini Hospital also looked at the number of patients in outpatient treatment. It appeared that some patients stayed overnight because they suffered from the morphine administered. Although the omission of morphine had been established protocol at Martini Hospital, this was apparently not carried out consistently. After the Santeon-wide discussions, attention was more given to this and also to locoregional anaesthesia, which allows patients to be operated with the aid of a sedative instead of under general anaesthesia.

The other hospitals have implemented similar

FIGURE 13 Patients with a breast-conserving operation in outpatient treatment



Cycle 1: Patients diagnosed in 2014/2015,

Cycle 3: Patients diagnosed in 2016

Source: EPDs in every hospital, based on patients included (NBCA from IKNL).

improvements. At of the last measurement, the mean number of breast-conserving operations in outpatient treatment at the Santeon hospitals has risen to 66% after a year. The range is now between 43%-84% (Figure 13). This has reduced the range and shifted it to a higher level.

**YVONNE
VAN RIET
CATHARINA
HOSPITAL**

'Apparently, we did not all say the same thing to the patients, and what was on paper was not consistent with what was being said. We have standardised this, and now we provide the same information. Our approach seems to work, which means we are now in discussions with the plastic surgeon as to whether reconstructive operation could also be done in outpatient treatment. The same applies to a mastectomy.'



MIRJAM
VORAGEN,
a patient of
Catharina
Hospital
Eindhoven and
a member of its
breast cancer
improvement
team.

'After my treatment, I was asked to participate in the value-based health care improvement team. This means that I can use my experience as a patient at this hospital to improve patient care. My first result is placing nice soft tissues at the breast clinic to wipe your tears.'

How doctors experience the collaboration in the Santeon context

LUC STROBBE, AT CANISIUS WILHELMINA HOSPITAL

'This way of working stimulates each other to improve. We discuss identifiable practical situations, and you have discussion partners that you know well, and that helps. You feel like together you form a club, which is less anonymous and makes it easier to talk.'

RON KOELEMIJ,
BREAST CANCER
SURGEON AT
ST ANTONIUS
HOSPITAL

'For me, the strength of the collaboration lies in hearing directly if something is going well or not. Thinking or acting quickly. More contact about content. Giving substantial, practical shape to the job, together. Looking at numbers more often and making a plan for a new form. And adjusting faster.'

MARJOLEIN PLEUNIS-
VAN EMPEL INTERNIST
ONCOLOGIST AT MEDISCH
CENTRUM TWENTE

'We performed more MRI scans than the other hospitals. After consultation with the Santeon hospitals, we now deal with this differently. Now, the MDO first decides whether an MRI offers added value.'

HILLE WITJES, BREAST CANCER SURGEON AT OLVG

'When comparing indicators, we saw that at Catharina Hospital in Eindhoven, the turnaround times at the outpatient clinic were much lower than ours at OLVG. And that the diagnostics were faster. We have wanted to improve this for a while. We went to have a look in Eindhoven and compared our methods. At OLVG, we will now adopt their "best practice." We hope this will shorten the turnaround times for our patients.'



What's next?

This VBHC programme has been running for about a year and a half. It is now part of our working method, and it is simultaneously under development for continuous improvement (data collection, analysis). It is a transformation in which improvements are realised in small steps. Currently, every hospital chooses the subjects for which it can improve and adopt the best practice from others. The aim is to define a common ambition for all indicators that will become the Santeon standard. In addition to the already recorded data, Santeon is also fully committed to gathering patient-reported outcomes (Patient Reported Outcome Measures - PROMs),

such as pain, fatigue and quality of life, in a uniform manner. That information is still missing in the comparison. These PROMs will be collected not only to make comparisons between the hospitals, but also for use in the consulting rooms. This allows us to provide each patient with better assistance for choosing the best treatment and following their own care path. The scorecard data will be collected every six months. On the one hand, this is to formulate new hypotheses, and on the other, to monitor whether improvements become and remain visible.

Attachment 1

The improvement teams

ATTACHMENT 1 INVOLVED IMPROVEMENT TEAMS

CANISIUS WILHELMINA HOSPITAL

Luc Strobbe	Surgeon
Judith Hegeman	VBHC project leader
Bart Ament	VBHC project leader
Vincent Verhoeven	Data analyst
Dick Venderink	Radiologist
Carla Wauters	Pathologist
Bianca Dekker	Breast care nurse
Dorothe Jans	Breast care nursing specialist
Nicole Laurens	Internist oncologist
Caroline Mandigers	Medical oncologist
Rebecca Berry	Breast care nursing specialist
Harold Fliervloet	Oncology nursing specialist
Franka Alofs	Oncology nursing specialist
Annemarie Janssen	Experience expert
Sandra van den Hof	Oncological care policy officer

CATHARINA HOSPITAL

Yvonne Van Riet	Breast cancer surgeon
Maarten Hoogbergen	Plastic surgeon
Frits Janssen	Radiologist
Ellen Degreef	Pathologist
Peter-Paul van der Toorn	Radiotherapist
Birgit Vriens	Internist oncologist
Petra Smetsers-Bressers	Breast care nurse
Saskia Claassen	Nursing specialist
Majorie Wijnands-de Werd	Nursing specialist
José Meulepas	VBHC project leader
Yvette van der Zande-van Gestel	Data analyst
Mirjam Voragen	Experience expert

MAASSTAD HOSPITAL

Caroline Contant	Surgeon
Annemieke van der Padt-Pruijsten	Internist oncologist
Ellen Parent	VBHC Project leader
Martijn Kuijper	Data analyst

MARTINI HOSPITAL

Gerard Glade	Surgeon
Annette van der Velden	Internist oncologist
Tessa de Vries	Breast centre doctor
Monique Machiela	Breast care nurse
Inge Kruithof	Pathologist
Koen Vanghillewe	Radiologist
Lianne Hosman	Unit head
Jan Reindert Moes	Hospital pharmacist
Marjan Gort	VBHC project leader
Heleen Hoogeveen	Data analyst

MEDISCH SPECTRUM TWENTE

Eino van Duyn	Surgeon
Anneriet Dassen	Surgeon
Narda Hendriks	Plastic surgeon
Margreet van der Schaaf	Radiologist
Maria Tebar	Pathologist
Evelien Koiter Jonkman	Radiotherapist
Marjolein Pleunis	Medical oncologist
Pauline Boerrigter	Breast care nurse
Caroline Bandel	Nursing specialist
Elly Huiskes	VBHC project leader
Sandra Oude Wesselink	Data analyst
Judith Wagelaar	Experience expert

OLVG

Hille Witjes	Breast cancer surgeon
Nausic�a Bode	Surgeon
Martina Weimann	Radiologist
Annet Driessen	Radiologist
Annabeth Wassenaar	Pathologist
Maud Geenen	Medical oncologist
Esther Moerman	Plastic surgeon
Carla de Vries	Breast cancer nurse
Gea Visser	Breast cancer nurse
Martine Twigt	Nursing specialist
Marieke Bouw	Nursing specialist
Hanneke Jenje	Operational manager at Oncologisch Centrum Amsterdam
Mirjam Crul	Hospital pharmacist
Samyra Keus	VBHC project leader
Doeke Bijlmakers	Data analyst

ST ANTONIUS HOSPITAL

Ron Koelemij	Surgical oncologist
Annemiek Doeksen	Surgical oncologist
Assa Braakenburg	Plastic surgeon
Gijs van Leeuwen	Pathologist
Peter Appelman	Radiologist
Joost Verhoeff	UMCU Radiotherapist
Paul de Jong	Medical oncologist
Eveline Schouten	Breast care nurse
Trudy Dupont	Breast care nurse
Dirk-Jan de Leede	Department head
Wouter van Maarseveen	Manager of operation
Lea Dijkman	Methodologist
Jos Kroon	VBHC project leader
Karin de Gooijer	Data analyst
Jorien Pruim	Nursing specialist

ATTACHMENT 2 ORGANISATION

SANTEON

Annemarie Haverhals	Leader of VBHC@Santeon programme
Hetty Prinsen	Data manager
Inge van Veggel	Data analyst
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