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Implementing High Value Care in Europe

Private hospitals
Santeon

Context

Santeon is a Dutch group of seven private teaching hospitals. With a staff of 29,000 employees, Santeon delivers 11% of the nation's hospital care volume. Starting in 2016, the seven locations began working together to measure and compare outcomes, costs and relevant process indicators across five patient disease groups, including breast cancer[1].

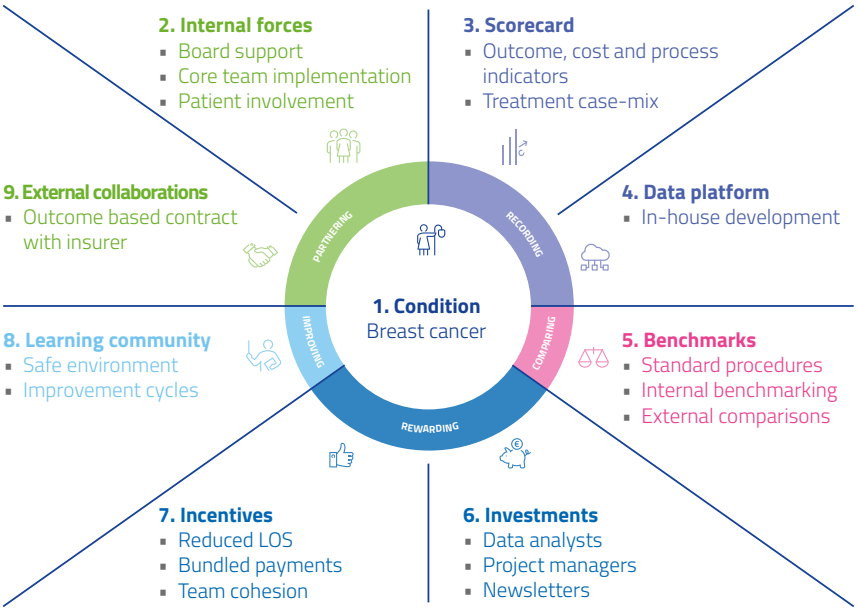
Achievements

In the 18 months after implementing its HVC plan for breast cancer, Santeon reduced reoperations due to complications by up to 74% at some locations, and unnecessary inpatient stays by nearly 30% across the seven hospitals[2].

Santeon achieved these results in just one and a half years by following clinical guidelines while also emphasising transparency and open benchmarks across medical teams[3].

Implementation

Santeon adopted the same HVC model in all seven of its hospitals to enable benchmarking and leverage the network's combined expertise efficiently. Santeon's Implementation Matrix is presented here on the right.



- HVC Implementation Matrix

Internal forces

At the group level, Santeon gathered a core team of three members to work on hospital alignment across the seven sites: a programme manager to direct the operation, a medical lead to head the development of the content and metrics, and a data analyst to work on data quality. At hospital level, Santeon established similar multi-disciplinary teams involving patient representatives to lead priorities and programme implementation onsite.

Scorecard

Multidisciplinary clinical teams selected 19 metrics that define value. Each team involved patients in defining key outcomes and processes. Improvement cycles of six months established a strict, simultaneous cadence for the teams in each hospital[1]. The scorecard also provided researchers with a structured outcomes database that they could use to publish scientifically and statistically significant results over time (Table 1).

Table 1

Scorecard for breast cancer

Category	Indicator
Outcomes	▪ 5-year survival rate, unadjusted (%) ▪ Repeat operations after a positive margin (%) ▪ Repeat operations after postoperative complications (wound infection or postoperative bleeding (%)) ▪ Unplanned admissions, deviation from treatment plan and/or heart failure after systemic therapy (%) ▪ PROM: quality of life, functioning, pain ▪ PROM: specific symptoms as a result of treatment (breast, arm, vasomotor)
Costs	▪ Nursing days per patient (number of days) ▪ Primary breast conserving operation without hospitalisation (%) ▪ Operating room-time per patient (minutes) ▪ Outpatient clinic consultations per patient (number) ▪ Additional diagnostic activities per patient (MRI, PET, CT, MammaPrint) ▪ Use of expensive medicines
Processes	▪ Duration from referral to first clinic visit ▪ Duration from first clinic visit to diagnosis (AP report) ▪ Duration from diagnosis (AP report) to discussion of the treatment plan ▪ Duration from discussion of the treatment plan to treatment commencement ▪ Dedicated contact person who supervises the patient and is known to the patient (%)
Treatment mix	▪ Percent of patients per treatment option (e.g. breast cancer conserving, direct reconstruction)

Investments

Beyond financial investments, Santeon appointed central data analysts to align collection standards across hospitals, perform analyses and present outcome variation for Santeon-wide discussion. The core team developed a handbook to codify the model, ensure uniformity through standard operating procedures (SOPs) and provide harmonised guidance across the seven hospitals. The handbook described the purpose of each step in the improvement cycle, participants' roles and responsibilities, and strict rules regarding the quality and sharing of data.

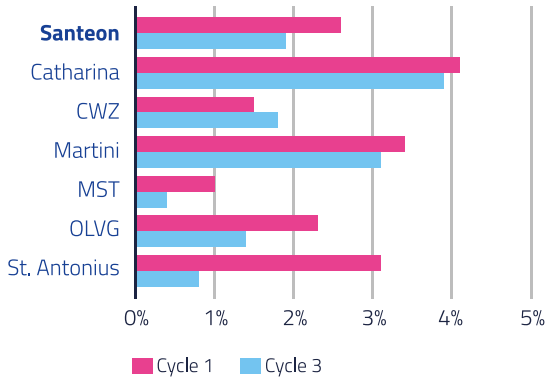
Benchmarks

Following cross-hospital meetings, hospital-level multidisciplinary teams met to discuss possible drivers of observed variation in outcomes relative to other Santeon hospitals. They asked whether variation is due to differences in data collection, patient mix or treatment choice. Medical professionals from the different hospitals would frequently reach out to each other to share best practices. The medical lead would discuss practices with the team and manage implementation of one action per cycle. The cycle then began anew[3]. Repeat operations due to complications (e.g. post-operative bleeding and wound infections) are challenging for patients and often mean that follow-up therapy, such as radiotherapy, must be postponed. Though the percentage of repeat operations due to complication was low at all Santeon hospitals (less than 4%), there was a 400% variation between the highest and lowest scoring hospitals. Improvement teams resolved to explore the reason for this variance.

Thanks to the safe, non-retaliatory nature of the data sharing environment they had created, they were able to look directly at the clinician level, and they found that the clinician with the lowest complication rate used more highly augmented wound flushing. After other surgeons adopted this methodology, reoperations due to complications fell by 27% across Santeon Hospitals, and by 258% at the St. Antonius hospital in particular, after just one and a half years. This improvement is a direct consequence of comparing each other's figures and methods[2] (Figure 1).

Figure 1

Reoperations due to complications[2]



Cycle 1: Patients diagnosed in 2014/15
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

Learning community

The existence of a safe learning environment was critical to discovering the drivers behind outcome variation. Fear of negative reactions to poor results would stifle the incentive to promote transparency and share data. Teams took a collaborative approach and used data not to judge one another, but to develop best practices based on observed, clinically relevant differences. Confidential sharing also helped teams to gain familiarity with the value-driven nature of their work and to highlight areas where improvement was possible. Three Santeon hospitals investigated what could be done to treat a higher percentage of breast cancer lumpectomy patients in the outpatient setting in order to both improve patient experience and minimise unnecessary costs. After an initial improvement cycle, teams tested several hypotheses and concluded that two main factors were responsible for preventing the patient from returning home. First, patients were often not informed that they would be returning home the day of surgery. When patients were informed in advance, they were able to make the necessary arrangements. Second, teams at St. Antonius found that postoperative morphine prevented a large number of patients from going home the day of surgery. Morphine-induced nausea prolongs hospital stay. Now, patients receive a nerve block before an operation so that the patient is pain free for the first 24 hours following surgery. Prioritising the use of a locoregional anaesthesia combined with paracetamol helped to improve the percentage of patients able to return home the same day, without affecting patient outcomes. Changes in these two areas led to an 18% increase in outpatient surgeries after one year.

Highlights

Santeon succeeded in creating a learning community of hospitals where clinician-level data could be shared transparently without fear of punishment or retaliation, making value-based improvement possible.

References:
1. Santeon site visits at Maastad hospital (May 3, 2019) and St Antonius hospital (October, 2019).
2. Santeon Report 2017 – Better Breast Cancer Care Through Collaboration Santeon: Rotterdam.
3. BCG Report 2018 How Dutch Hospitals Make Value-Based Health Care Work.

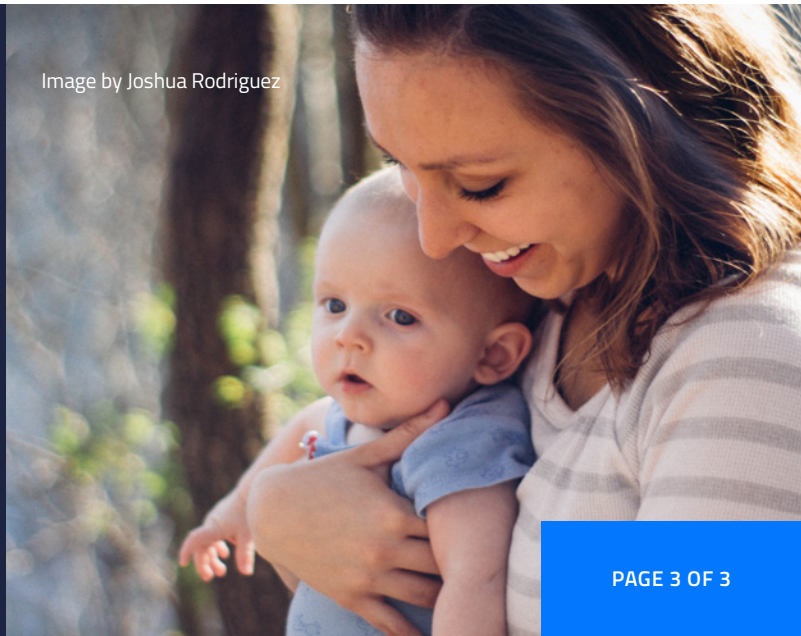


Image by Joshua Rodriguez