

**Medtronic**

Integrated Health Solutions<sup>SM</sup>

## Case study: How St. Antonius hospital optimized capacity by moving cardiac procedures to same-day discharge

St. Antonius, Netherlands



# Overview

As the patient population grows and ages, healthcare systems are facing capacity pressures as well as staffing challenges.

At the same time, they must maintain quality of care while managing ever-tightening budgets. A same-day discharge (SDD) approach has the potential to free up hospital beds and other resources while improving the care pathway for cardiac patients undergoing certain procedures. SDD also has the potential to increase patient satisfaction by enabling patients to continue their recovery more quickly from the comfort of their own homes.



## The hospital & heart centre

St. Antonius Hospital has multiple locations in and around Utrecht, and is one of the leading hospitals and heart centers in the Netherlands. Its Heart Centre is a leader in cardiology and cardiothoracic surgery, performing more than **7,000 Cath Lab interventions** (in **5 Cath Labs**) and more than **2,800 operating room procedures** annually.

Medtronic Integrated Health Solutions (IHS) has worked in strategic partnership with the hospital on various efficiency and optimisation solutions over the last seven years.

**5**

Cath Labs

**7,000+**

Performed Cath Lab interventions

**2,800+**

Operating room procedures annually

## The challenge

Heart Centre patients would typically stay overnight following procedures such as percutaneous coronary interventions (PCI), ablations, or pacemaker/ICD implantations. However, with the hospital at full capacity, this was putting pressure on beds, endangering its ability to handle emergency cases as well its growth ambitions. Given this, St. Antonius' Heart Centre was looking for ways to deliver quality care and an optimal experience to more patients while reducing overnight hospital stays for patients undergoing certain cardiac procedures.

# The solution

The Heart Centre collaborated with its long-time partner, Medtronic IHS, to move certain procedures to SDD. Together, they worked on a year-long program to transform the delivery of care from clinical to day treatment for select procedures.

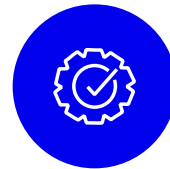
The program was based on IHS' proven framework to optimize the Heart Centre's processes that focuses on the **six factors** critical to this type of project's success.

## The 6 success factors



### **A transparent care pathway and clear approach to patient selection:**

Helps stakeholders understand which patients meet criteria for SDD, and know their own roles and responsibilities along the pathway.



### **Supportive infrastructure and IT:**

Ensures there are enough chairs, Cath Labs, and other resources such as a state-of-the-art CardioLounge\*, management information dashboards, and IT to support the move to SDD.



### **Optimized planning and scheduling:**

Makes sure patients are scheduled in a timely way to enable same-day discharge.

(Example: Procedures that require longer recovery are done first).



### **Accurate patient and referrer information:**

Ensures all information is in order, and everyone is well informed, to avoid delays in the procedure.



### **A cohesive organization and culture:**

Ensures every member of the organization has the mindset to support and sustain change.



### **A strong costs and benefits case for SDD:**

Ability to create a common view among stakeholders, including insurers, on the benefits of SDD.

\* St. Antonius had a CardioLounge already in place.

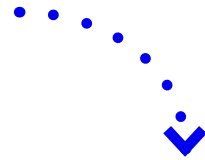
By identifying gaps in the success factors, and using the following **five-step approach**, they were able to close those gaps, enabling the Heart Centre to begin moving procedures to SDD:

## The 5 step approach

1

### Set up and planning:

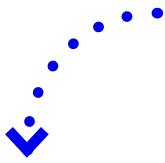
To **kick off** the project and identify roles.



2

### Data driven analysis:

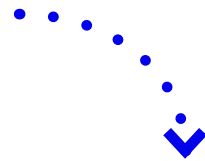
To **understand and analyze**, understand the current situation, map the current and desired care pathway, and determine preferred status of preconditions.



3

### Process redesign:

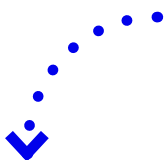
To confirm objective, **develop** new processes, and make plans for implementation phase.



4

### Process implementation:

To pilot and test new procedures with a focus on monitoring and maintaining quality; to inform staff, patients, and referrers of the implementation timeline, and **implement** measures based on priority.



5

### Sustain and scale:

to **measure and sustain** results, reinforce change, and plan for added procedures.

The Heart Centre already had a Heart Lounge, which is a post-procedure recovery area designed to enhance patient comfort, so IHS designed the process around this infrastructure.

The Heart Centre began moving procedures to SDD in phases, beginning with PCI, then ablations, then device implantations. The process took about a year to allow for the steep hospital learning curve that typically accompanies each procedure. This phased approach also had the advantage that, over time, it increased staff's willingness to change.

## The impact: for the hospital

By the end of the program, the Heart Centre was able to reinforce its positioning as a leading cardiac centre of excellence. It also increased the number of patients going home within the same day, with comparable clinical outcomes and complication rates, while maintaining quality and patient experience:

From **45% to 85% PCI** (elective) patients

From **0% to 80% Ablation** patients

From **0% to 60% Device** patients

**Freed up 8 - 10 Clinical ward beds**

## The impact: for patients

SDD improved patient comfort, enabling them to return home earlier, which increases patient satisfaction.

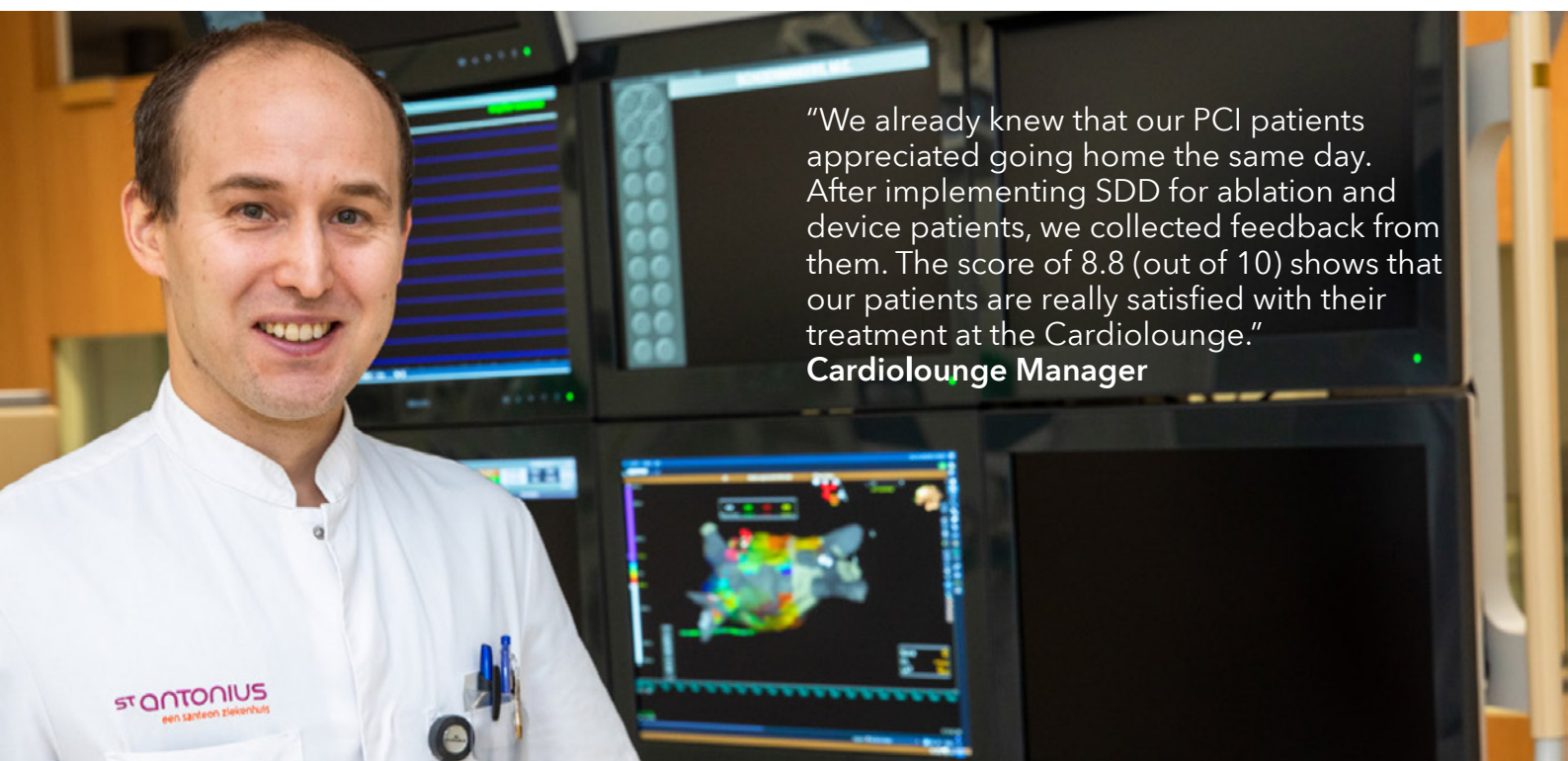
## What the hospital is saying:

"By discharging patients home on the same day after a pacemaker implantation, we provide good and safe care, which allows us to treat more patients."

**Electrophysiologist**

"With IHS, we were able to move our cardiac procedures to same-day-discharge, ensuring the highest level of safety for our patients, which is our priority."

**Heart Centre Manager**



"We already knew that our PCI patients appreciated going home the same day. After implementing SDD for ablation and device patients, we collected feedback from them. The score of 8.8 (out of 10) shows that our patients are really satisfied with their treatment at the Cardiolounge."

**Cardiolounge Manager**

## About Medtronic IHS

Integrated Health Solutions<sup>SM</sup> builds on Medtronic's unique combination of capital resources, process optimization expertise and therapy knowledge. In cooperation with medical institutions, IHS develops innovative services and solutions to improve efficiency, reduce costs, facilitate patients' access to different types of treatment, and improve outcomes.

Would you like to know more about how you can employ SDD at your hospital?

Visit our [website](#), reach out to your Medtronic contact or email us at: [integratedhealthsolutions@medtronic.com](mailto:integratedhealthsolutions@medtronic.com)

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