

The Philips logo is displayed in a white rounded rectangle on a dark blue background.The word 'Consulting' is written in white on a dark blue background.The words 'Case study' are written in white on a dark blue background.

Optimizing the Emergency Department at the Flevoziekenhuis Hospital, Almere, the Netherlands

The growing number of patients, shortage of staff and limited space at the Emergency Department of the Flevoziekenhuis hospital cause a high perceived work pressure and a full ED during peak times. The consultants of Philips Healthcare Transformation Services gave the Flevoziekenhuis in Almere advice and support regarding these challenges.

Background

The ED staff at the Flevoziekenhuis Hospital provide medical and nursing care to patients with acute medical problems 24 hours a day. Approximately 24,000 patients visit this ED in Almere every year. The department is part of Spoedpost Almere, a collaboration between the Medical Clinic, Emergency Department and De Brug pharmacy.

Challenge

Just like other emergency departments in the Netherlands, the Flevoziekenhuis ED is facing several challenges. There are large numbers of patients at peak times, it is difficult to find sufficiently qualified staff, the space in the ED is limited and the patient flow is slowed down by wait times for nurses, treatment beds, examinations, physicians and intake beds. The staff works hard and is able to meet the care demand during the majority of the week; however, at busy times, it isn't always feasible to treat all patients within a short time frame. In the worst cases, the ED has to stop accepting ambulances for a few hours — a situation that also occurs regularly in other EDs in the Netherlands.

Philips was asked to optimize the department's processes in order to meet the care demand more effectively at busy times. The second request was to address the ED space by creating an internal relocation or renovation plan.

Solution

Philips started with a detailed root cause analysis to determine the causes of closures, slow throughput and perceived work pressure. The team then grouped the causes and worked with the ED staff to identify nine improvement initiatives. One of the initiatives was an internal relocation to better utilize the available space. The Philips team was closely involved throughout the implementation of the nine improvement initiatives. The co-creation approach contributed to lasting changes. The results were measured using key performance indicators, which are shown at the end of this customer story.



Project Approach

1. **Root cause analysis** based on quantitative data, observations and interviews
2. **Co-creation** with staff to identify improvement initiatives
3. **Implementation** of improvement initiatives
4. **Securing** of results and continuous improvement

Root Cause Analysis

The first step in improving the ED was to perform a thorough root cause analysis. During this phase, it was important to identify the core causes to prevent the symptoms from occurring. Information was collected from a number of sources: from the E-care information system, from interviews with ED staff and collaborating departments, and by observing work processes.

This analysis was the basis of a sustainable improvement strategy aimed at eliminating the main causes. The data was also used to determine the baselines for the key performance indicators, making it possible to measure the added value generated by the project after completion.

During the analysis, 109 causes were identified that, to varying extents, were contributing to the challenges faced by the ED. The causes were clustered into the following categories: Intake, Throughput, Transfer & Discharge, Patients, Staff, Space, Information and Role of the ED within the Hospital. Where possible, the causes were quantified. For example, it became clear that non-emergency follow-up patients or outpatients formed a significant group (over 5%) of those coming to the ED during business hours.

‘The Philips team constantly adapted with the department during the implementation phase.’

ED Chairman Dr. F. Roodheuvél



Co-Creation for Improvement Initiatives

Philips and the Flevoziekenhuis staff worked closely together on the second phase of the project. Using a co-creation approach with the ED staff, nine improvement initiatives were identified. Within each improvement initiative, appropriate solutions were defined, prioritized and further developed.

By involving staff in defining the solutions, we created a basis for change and ensured rapid implementation, laying the foundation for lasting improvement.

A stand-out initiative was to optimize the use of space. Philips Design experts helped to create a new design for the department to suit the work processes and number of employees required to work in each space.



Implementation

During the implementation phase, the improvement initiatives were rolled out. Philips Healthcare Consultants drafted a schedule and directly supervised the implementation of the short-term actions. The stakeholders worked together to prepare the long-term actions.

One successful initiative was the introduction of the new role of Triage Assistant, in which a physician's assistant is given the responsibility to carry out several diagnostic tasks independently in the triage room. This means that Triage Nurses — of which there is a significant shortage — are relieved of work pressure and triage is performed faster. This solution was chosen from a range of options due to its feasibility and impact. Another example of a successful implementation initiative is the restructuring of the handover process. By matching these among physicians

and nurses, maintaining a fixed structure and setting up a dedicated room, handovers now meet the predefined requirements. Setting up a new room was part of the relocation plan, which redistributed the functions of the existing rooms.

Monitoring

Ongoing assessment and fine-tuning are important to ensure continuous improvement, identify remaining bottlenecks and, if necessary, implement new solutions. For two months, the Philips team spent one day a week onsite to oversee this process before handing over to the team leader and department manager. Another two months later, the Philips team assessed all initiatives with the department once again, and this will remain a reoccurring item on the agenda during department meetings.

Results*

Three months after the improvement initiatives were implemented, the results were measured and compared against the baselines. The key results are:



* During business hours, for specific patient groups.

‘The Philips team uncovered all the data needed to improve my department.’

ED Chairman Dr. F. Roodhevel



Learn more

Through collaborative and people-focused engagements, Philips Healthcare Consulting Services can help develop innovative solutions to solve your most complex challenges of care delivery. We can help you achieve meaningful and sustainable improvements in clinical excellence, operational efficiency, care delivery, and financial performance to improve value to your patients.

For more information, please visit www.philips.com/healthcareconsulting.

* Results from case studies are not predictive of results in other cases. Results in other cases may vary.

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