

Submission report

REDESIGNING BREAST CANCER DIAGNOSTICS

Overview

This project rethinks the way the Breast Cancer Diagnostic Centre at Oslo University Hospital handles the entire referral and diagnostic process. The result is a 90% reduction in waiting time from a patient's first visit with her general practitioner (GP) through her final diagnosis at the hospital. This represents a dramatic improvement in efficiency, a huge improvement in quality of life for patients in a tremendously stressful period of time, and potentially saved lives.

The new process is designed around the patient, a radical concept for the hospital. The designers started by mapping out the optimized patient experience, and worked backwards from that. What would the GPs, the receptionists, the radiologists, the nurse, the pathologist, the oncologist and the surgeon have to do to best meet this experience?

The new service is built on a team-based daily structure that can process patients through to final diagnosis and treatment plan in 4 days:

DAY 1: The patient visits her GP for a clinical examination. The GP suspects breast cancer and sends a referral for further diagnostics at the hospital. Patients are given a brochure clearly explaining next steps along with a phone number to call with any questions, helping to alleviate the sense of fear and uncertainty at this difficult time.

DAY 02: All referrals are now sent to one place, where a radiologist assesses all new referrals on a daily basis to ensure prompt call up of patients. The appointments are scheduled quickly, with time now freed up by the streamlining of the diagnostics teams' schedules and the employment of a private institute for less urgent cases and check-ups after recovery.

DAY 03: The patient attends the appointment at the hospital, with all her examinations within one day. At the end of that day the radiologist gives her a preliminary answer on the spot.

DAY 04: The next day, in a routine-based morning meeting, a multi-disciplinary team discusses the patients. The same afternoon, the patient can return for her final diagnosis and treatment plan.

The tools and tests used for diagnosis, such as MRIs and mammographies, remain the same. The new system, because of its simplicity and reliance on new human processes, not technology, was in place as the new system less than a year after the project began, and showed immediate results. The service has been up and running since November 2013, and all patients referred to the hospital for breast diagnostics, go through this new system.

Process

Oslo University Hospital is the largest hospital in Scandinavia, a massive public organization. It's not often easy to make any sort of change within such a system, but the collaborative, visual, and iterative nature of the design work made it possible for the hospital staff to work together as a team to envision a new system.

The designers successfully used patient insight to convince hospital management of the urgency, visualizations to communicate workarounds, prototyping to test and co-creation to ensure feasibility.

What we really did was to facilitate a patient centric process. We started off by doing in-depth interviews with both patients and different staff at the hospital. Following the interviews, we sought a deeper understanding of the current work process at both hospital and general practitioners' offices through contextual inquiry and role-play.

The insight revealed that all the staff, both at the hospital and at the GPs, involved in breast cancer diagnostics worked in siloes and had little understanding of the steps the patient goes through before or after "their part" of the process. The fragmented process was not only inefficient, but also provided the patients with little information or support throughout the difficult period before diagnosis. While the women felt as a breast cancer patient the moment she or her GP discovered a lump in her breast, the hospital didn't really treat her as a patient until she got diagnosed with cancer.

The focus of the project became to create a clear and informed path from the GPs and get the women diagnosed as fast as possible. In order to create a solution that worked well with all parties, we then facilitated co-creation workshops with both GPs and different staff at the hospital. Finally, we tested different versions of the service by walking patients and staff through sketched-up scenarios, and asking them for feedback and adjustments.

Benefits

Breast cancer is the second leading cause of death among women. 1 of 8 women will get diagnosed in their lifetime. 5000 women are referred to Oslo University Hospital each year, with suspected breast cancer. Early detection and diagnosis is key in treatment and recovery.

In the past, referrals and diagnostics was structured around the professionals' routines. Everything was segmented, with no point of contact through the process. The result was an inefficient and incoherent experience, with little support for a highly sensitive user group. The designers created a patient journey with new back-stage routines around the existing diagnostic tools, resulting in a team-based daily structure that could process patients through to final diagnosis and treatment plan in 4 days. This represents a huge improvement in efficiency and quality of life for patients, less time to wait in the unknown, more confidence in the hospital, less stress on the system and less time for cancer to advance.

Effects

Previously, it could take up to 12 weeks before patients received a letter with an examination at the hospital after the referral from the primary doctor. Patients are now systematically called no later than 2 days after their visit at the primary doctor to schedule the appointment. The average time from referral to final diagnosis is 7 days, witch represent more than 90% reduction in waiting time.

Approx. 5000 women go through the system each year. Even though only 20-25% of these women need treatment for cancer, the new service also has a tremendous impact on the amount of stress for the remaining 75-80% of the women, who still need to go through the referral and examination process.