

# Breast Cancer Center: Improving Access to Patient Care

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## Abstract

To improve access for patients to the Breast Cancer Center at Roswell Park Cancer Institute, the Opportunities for Improvement Project team defined 3 goals: reduce the delay to initial appointment, reduce delays in treatment at the Breast Cancer Center, and reduce delays in the start of endocrine therapy. The team developed a set of tools using Lean methodology that helped to address variables contributing to inefficiencies that result in delays. The idea behind these tools was to integrate all the business variables, such as volume, clinical space, physician availability, services offered in the Breast Program, and patient types, to produce a system or schedule that is more predictable. A new schedule for physicians, independent mid-level clinics, a survivorship program, a primary nursing model, and new roles and responsibilities were defined and implemented. Mean scores in a Press Ganey survey for wait-time questions improved by 10 points, and patient complaints decreased by almost 40%. The team concluded that delays in the Breast Program were symptoms of a larger dysfunction in systems. Fixing the problems required a comprehensive approach to review all the variables that resulted in delays. (*J Natl Compr Canc Netw* 2014;12[Suppl 1]:S28-S32)

Roswell Park Cancer Institute (RPCI) started working on an NCCN-sponsored Opportunity for Improvement (OFI) project in April 2011. The project originally focused on improving concordance with the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines). In conjunction with this, RPCI was spurred by poor Press Ganey pa-

tient satisfaction scores and complaints about wait times. Thus, a secondary goal of solving these issues was included, which led to a patient experience initiative and redefined the OFI project charter to focus on access and wait times in the Breast Cancer Center.

The team that coordinated the improvement was the Breast Product Line, co-led by the clinical chief and the breast imaging chair. This leadership group meets every other week. The OFI team also included the clinical chief, a nurse manager, a physician in mammography, a nurse practitioner or physician assistant, and an industrial engineer.

A toolkit was developed using Lean methodology to address all of the variables contributing to the inefficiencies in the breast program leading to wait times and delays. This toolkit was standardized to analyze patient flow and address inefficiency in any service or clinic at RPCI.

Using the toolkit, the team made major changes in patient flow, scheduling, and the staffing model, which led to a significant enhancement of the quality and experience of care in the Breast Cancer Center at RPCI. All the changes have had a positive impact on the patient experience. The mean wait-time scores on a Press Ganey measurement improved by 10 points, and complaints decreased by 40%. The project also led to implementation of several new programs, such as a patient and family advisory council, a navigation program, a survivorship program, and independent mid-level clinics.

## Goals and Approach

The OFI team used Press Ganey scores and patient complaints to define major areas of focus. The goals of the OFI project were to reduce time to initial appointment, patient wait time, complaints, and delays in the start of endocrine therapy.

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## Improving Access to Patient Care

The OFI team developed a set of tools to understand and address all of the variables contributing to the delays in the Breast Cancer Center. This toolkit helped standardize patient flow and spread patients over time and physicians. It aligned clinical volumes with resources in the clinic. The details of each tool are listed below:

- The breast program standard operating procedure is a document written by the chief of the breast cancer program that defined services offered, patient types, and duration of the appointments associated with them. This document also outlines resources needed for the appointment.
- In the patient flowchart (Figure 1), the OFI team recorded and charted patient movement from check-in to check-out. Current roles and responsibilities of the staff and locations of services delivered were also documented.
- A volume analysis aligned breast program volume goals with individual physician volume goals and also with the clinical contract in terms of the number of days practiced per week. The output of this analysis is simply how many patients should be seen every day without overbooking or adding wait time to the clinic. The next step is to determine how many providers should practice to account for the patient volume each day.
- A capacity analysis and line balancing tool was created to analyze the capacity of the physical space (examination rooms, assessment area, and conference room) and align it with staff capacity

to eliminate bottlenecks. This analysis is based on the breast program standard operating procedure.

- A task-based staffing analysis was performed to analyze current staffing. Through this analysis, the OFI team proposed a new model, and the nursing department defined a primary care nursing model, which is in the process of implementation.
- As a part of the patient flow analysis, roles and responsibilities of the staff were analyzed to eliminate redundancy and multiple handoffs as much as possible.

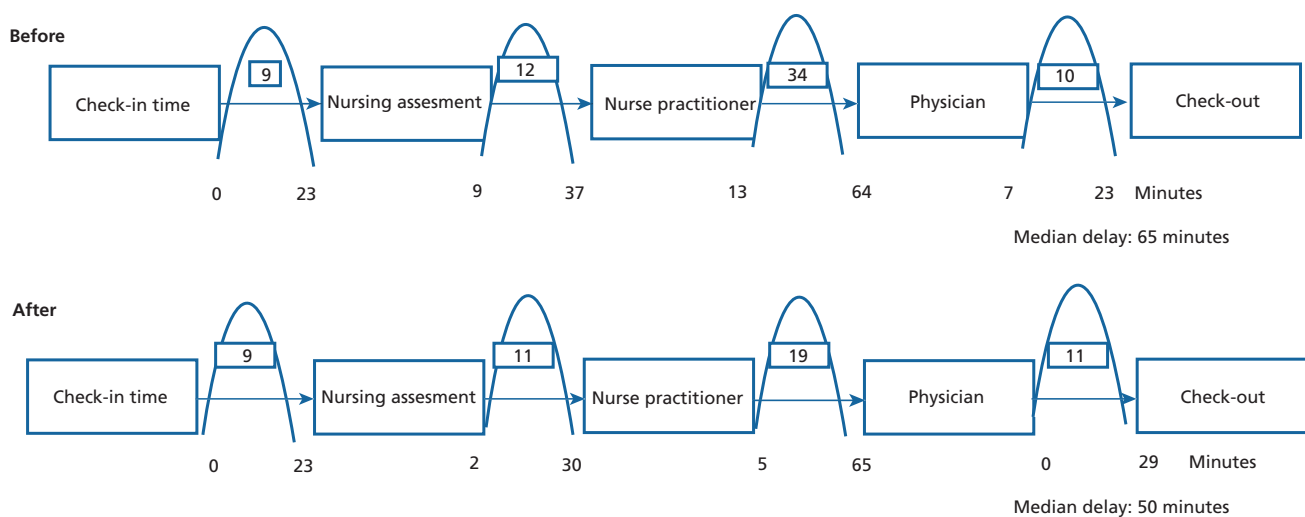
## Interventions and Results

### Time to Initial Appointment

The time to initial appointment is defined from the point RPCI receives a phone call to the first available appointment. These data are collected by patient access. As shown in Figure 2, the 2009 baseline measure was a median of 8 business days from the first call to first offered appointment.

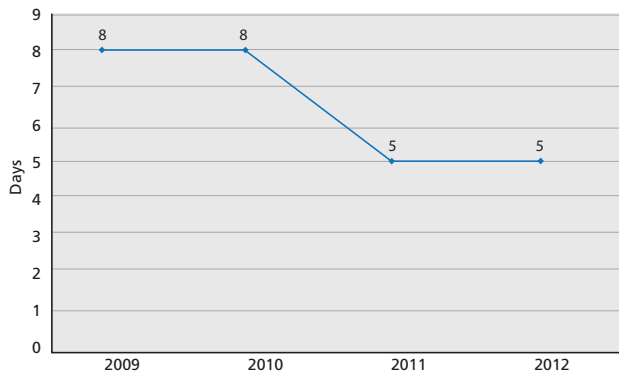
After this metric was identified in the OFI charter as a target, brainstorming sessions led to identification of barriers, which in turn led to changes in scheduling templates for patient access. The toolkit was used to analyze space, volumes, and physician availability to add clinic hours.

The OFI team also identified that the intake process added undue delay for new patients with abnormal imaging results who were referred for biopsy



**Figure 1** Patient flowchart from check-in to check-out showing delays (in minutes) between processes and providers. Distribution of data between each point shows the minimum, median, and maximum delay.

Singh et al



**Figure 2** Delay from initial phone call to first appointment was reduced from 8 business days in 2009 to 5 in 2012.

by non-RPCI breast imagers; the team developed the “BI-RADS 4/5 Program” as an alternative for these women. Historically, these women were required to see a breast cancer specialist before having the biopsy scheduled. This added an extra visit and caused up to 3 weeks of delay. Under the new BI-RADS 4/5 program, breast imaging is reviewed within 24 hours of calling. If a biopsy is warranted, it is performed within 2 business days, and an appointment in the Breast Cancer Center with the results of the biopsy is scheduled for within a week.

### Reduce Wait Time in the Breast Cancer Center

Wait time is defined as the time spent by the patient waiting for any resource from check-in to check-out. A time study was performed in the Breast Cancer Center to understand areas of improvement. Baseline median wait time was 65 minutes in 2011 (Table 1). The time study was used to facilitate brainstorming sessions and derive reasons for delay in each subprocess. Some reasons for delay as described by the staff were as follows:

- Too many patients scheduled per hour.
- More services are offered than were planned for the patient. For example, a genetics consultation might be added to a provider visit, resulting in unplanned time and resources.
- Actual duration of the appointment does not match with planned duration. For example, a new patient might be scheduled for a 15-minute appointment, but the appointment actually required 30 to 45 minutes.
- The roles and responsibilities are unclear and too many handoffs are needed throughout the patient visit.

Using the toolkit described, several changes were made in the Breast Cancer Center, including revision of the physician schedule to add clinic time and distribute patient visits over the week and more uniformly across providers. Changes implemented included

- Creation of new appointment tasks;
- Assignment of realistic duration for appointments based on patient types and provider performance;
- Establishment of mid-level provider clinics (eg, nurse practitioner) for appropriate care level; and
- Development of primary nursing model with a nurse(s) assigned to each physician for clinic preparation, monitoring schedules, follow-up with patients, and coordinating care.

## Results

As shown in Figures 3 and 4, complaints were reduced by 40% and the Press Ganey scores increased by 10 points compared with the Consortium of Comprehensive Cancer Centers for Quality Improvement (C4QI) and all facilities.

### Delay in Start of Endocrine Therapy

An issue defined in the initial guideline concordance analysis was that some women experienced a 6- to 8-week delay after completing radiation and before starting endocrine therapy. Staff were educated and informed, and patterns of care were monitored. Patients now receive a prescription for endocrine therapy during radiation therapy, with instructions to start immediately at the end of radiation therapy, or are given an appointment with the medical oncologist immediately at the end of radiation therapy.

**Table 1** Median Wait Times in 2011 and 2012<sup>a</sup>

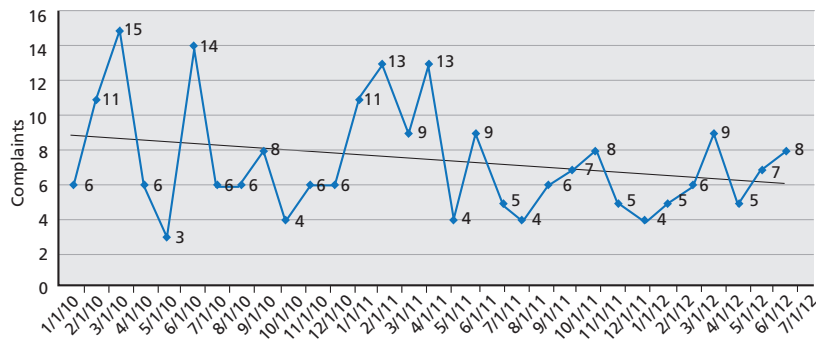
Patient Type	2011	2012
New patient	85.0	75.5
Follow-up appointment (MD)	74.0	54.0
Follow-up appointment (NP)	NA <sup>b</sup>	31.0
Postoperative	69.0	53.0
Unscheduled add-on visit	57.0	26.0
Overall median time	65.0	50.0

Abbreviations: NA, not available; NP, nurse practitioner.

<sup>a</sup>Median wait times are shown in minutes.

<sup>b</sup>NP clinics were instituted in 2012.

Improving Access to Patient Care



**Figure 3** Patient complaints by month for the Breast Cancer Center.

The time to initiation of endocrine therapy after radiation was also monitored with the changes in practice. The number of women whose treatment initiation was delayed decreased significantly for those who received chemotherapy before radiation and those who did not receive chemotherapy.

**Establishment of Patient and Family Advisory Council and Navigation Program**

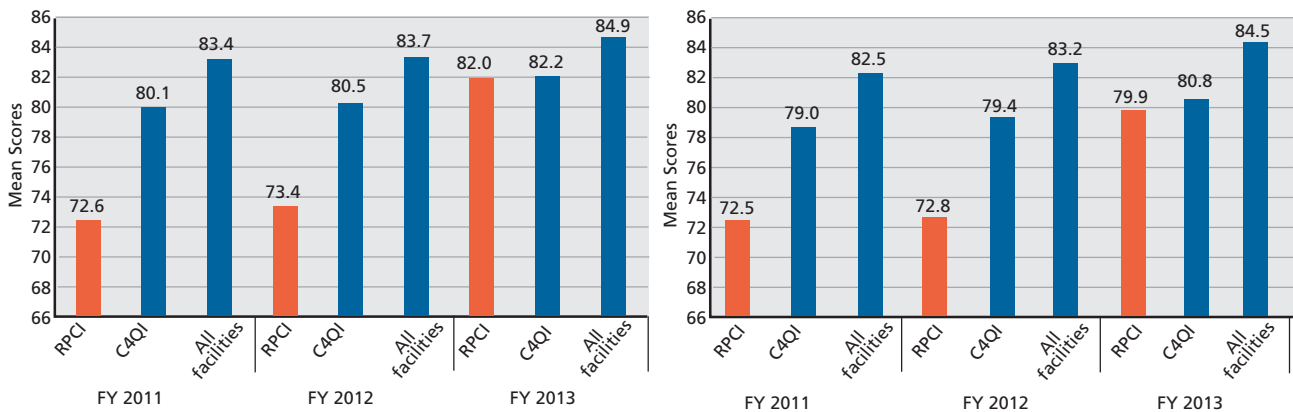
An outgrowth of the OFI project and Patient Experience Program was recognition that institution staff should collaborate with patients to identify the barriers and solutions to patient access and flow in the Breast Cancer Center. To this end, a Patient and Family Advisory Council was formed in mid-2012 that meets monthly and addresses patient access and intake issues related to clinics.

This group identified communication of plans for the clinic visit as being less than ideal, and this lack of clear communication led to the limited understanding of the time associated with the new patient visit. This and other input from staff led to the establishment of

a formal patient navigation program. This program is built on the existing patient resource center, and the educators in the resource center have taken on the task of navigation. In this program, every new patient with breast cancer is contacted by the navigator before the first visit, and then contacted or “touched” by the navigator at least 5 more times through the primary treatment phase, with the last navigation contact occurring in the early survivorship phase (≈2–3 months after completion of all therapy).

**Survivorship Program**

RPCI is developing a full-service survivorship program. As a part of this program, the percentage of patients who have continued follow-up after a cancer diagnosis and the factors associated with leaving RPCI follow-up will be evaluated. These data will be used to assist patients with transfer of care to their community physicians, if they so desire, after 5 years, of cancer follow-up. Overall, by 5 years, 20% of women, and by 10 years, 40% women have self-



**Figure 4** Press Ganey comparison data showing waiting time in the examination area (A) and information provided for length and nature of wait time (B).

Abbreviations: C4QI, Consortium of Comprehensive Cancer Centers for Quality Improvement; FY, fiscal year; RPCI, Roswell Park Cancer Institute.

Singh et al

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transferred care from RPCI (with those who have died being censured from the analysis).

### Conclusions

Through the OFI project, RPCI was able to make significant improvements in the Breast Cancer Center. A rigorous analysis led by the OFI team to

understand the patient burden and create a system that more effectively manages clinical operations has improved the patient experience. Complaints have decreased by 40% and Press Ganey mean scores have increased by 10 points. The tools and approach used for this project are being used for other services at RPCI to improve the patient experience.