Patient navigation reduces time to care for patients with breast symptoms and abnormal screening mammograms

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ABSTRACT

Introduction: Concern has been raised about delays for patients presenting with breast symptoms in Canada. Our objective was to determine if our Rapid Access Breast Clinic (RABC) improved care for patients presenting with breast symptoms compared to the traditional system (TS).
Methods: A retrospective chart review tabulated demographic, surgical, pathology and radiologic information. Wait times to care were determined for patients presenting with symptomatic and screen detected breast problems.
Results: Time from presentation to surgeon evaluation was shorter in the RABC group for patients with breast symptoms (81 vs 35 days, p < .0001) and abnormal screens (72 vs 40 days, p = .092). Cancer patients with abnormal screens had shorter wait times than patients with breast symptoms in the TS (47 vs 70 days, p = .036).
Conclusion: Coordination of imaging and clinical care reduces wait times in patients with both abnormal screening mammograms and symptomatic breast presentations and should be expanded in our province.

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1. Introduction

Breast cancer is the most common cancer affecting Canadian women and although improvements in survival have come from early detection and improved treatment[1] 4900 Canadian women will die from breast cancer annually. There has been controversy about the effect that diagnostic wait times have on survival but a systematic review[2] showed that delay of more than 3 months from presentation to first treatment was associated with decreased survival. Delays following diagnostic assessment after an abnormal screening mammogram have been shown to have a negative impact on prognosis.[3,4] Despite an organized screening program more breast cancer patients present with breast symptoms than an abnormal screening mammogram in British Columbia (BC).[5] Similarly, studies in the UK have found most women present with breast symptoms.[2]

Guidelines for breast centers in Europe and the United States recommend patient navigation with breast care nurses that facilitate next steps in the diagnostic and treatment process.[6,7] Studies have shown an improvement in compliance with quality indicators[8,9] as well as an improvement in the timeliness of breast cancer care[10] with navigation. Other Canadian provinces have developed breast programs[11–13] and have shown improved wait times compared to BC.[14] Chiarelli reported that wait times for patients with screen detected breast cancers were shorter with organized assessment compared to usual care in Ontario.[15] Another study has shown that there is a delay for patients presenting with breast symptoms compared to screen detected abnormalities for the years 2004–2012 in Canada.[16]

In 2009, the Rapid Access Breast Clinic (RABC) was established at our urban hospital. The RABC reduced time to surgical evaluation using a navigated care model, coordinating all aspects of diagnosis and treatment at one facility.[17] These improvements remained after introduction of a Fast Track booking policy for the screening mammography program.[18] Additionally, with the RABC approach, fewer patients had surgery more than 90 days after presentation

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compared to patients receiving standard care[18]

This study was undertaken to assess wait times for patients presenting with breast symptoms compared to screening abnormalities and to assess the effect of the RABC approach.

2. Methods

A retrospective review of a prospectively maintained breast clinic data base was undertaken to look at diagnostic and surgical wait times for consecutive patients seen by 4 breast surgeons in November and December 2012. This time period was chosen as it allowed comparison to our previous analyses and was a time when the staffing levels and referral pathways were optimal for studying the effect of navigation. To obtain information on usual care in the TS a chart review of patients seen in the surgeon's private offices during the same time frame was undertaken to obtain the corresponding information from patient charts. Approval for the study was obtained from the University of British Columbia- Providence Health Care Review Board.

The RABC was established to offer a single site for coordinated clinical and radiological assessment of breast problems. Patients were referred to the clinic with either an abnormal screening mammogram through the hospital screening center or were referred to the clinic by their Family Physician (FP) for assessment of a breast symptom.

With the introduction of the RABC the breast surgeons working at our center saw patients in one of two locations-either patients that had been seen through the RABC or patients referred to their private office that would have received standard care (hereafter referred to as the traditional system, or TS). This latter group of patients would have had investigations at other imaging centers, and were referred for surgical assessment and treatment of breast complaints or breast cancer. The pathway of care was decided by the FP referral to diagnostic imaging. The RABC and TS have previously been described[17] and are depicted in Fig. 1.

On the date that surgery was recommended patients were placed in sequence on a single combined surgical wait list for surgery at our regional center, regardless of the location at which the consultation was performed (private office or RABC).

The primary endpoint of the study was time from presentation to surgical consultation. This time was chosen as this was the common point in both diagnostic pathways, and patients were combined on a surgical wait list once they had been assessed by the surgeon. The secondary endpoints were time from presentation to imaging, imaging to core biopsy, core biopsy to surgical evaluation, surgical evaluation to operation, and the number of diagnostic centers attended. Patients seen in TS (standard care) were compared to patients seen at the RABC. Only patients presenting with a new breast problem were included in the study. Patients that had previously been assessed by the breast surgeon, follow up patients, patients presenting for a second opinion, and patients with chronic breast conditions were excluded from analysis. The classification of cancer and non cancer patients was made based on the referral diagnosis. Nine patients in the TS were diagnosed with cancer after surgical evaluation and were analyzed in the non cancer group: 3 by image guided biopsy, 2 following surgical biopsy, 4 following excision for high risk lesions. Socioeconomic status was estimated using the median household income for postal code for British Columbia, 2007 edition[19]

Statistical analysis was performed using a student's t-test for continuous variables and a Chi Square or Fischer's Exact test was performed for categorical variables. A p-value of <0.05 was
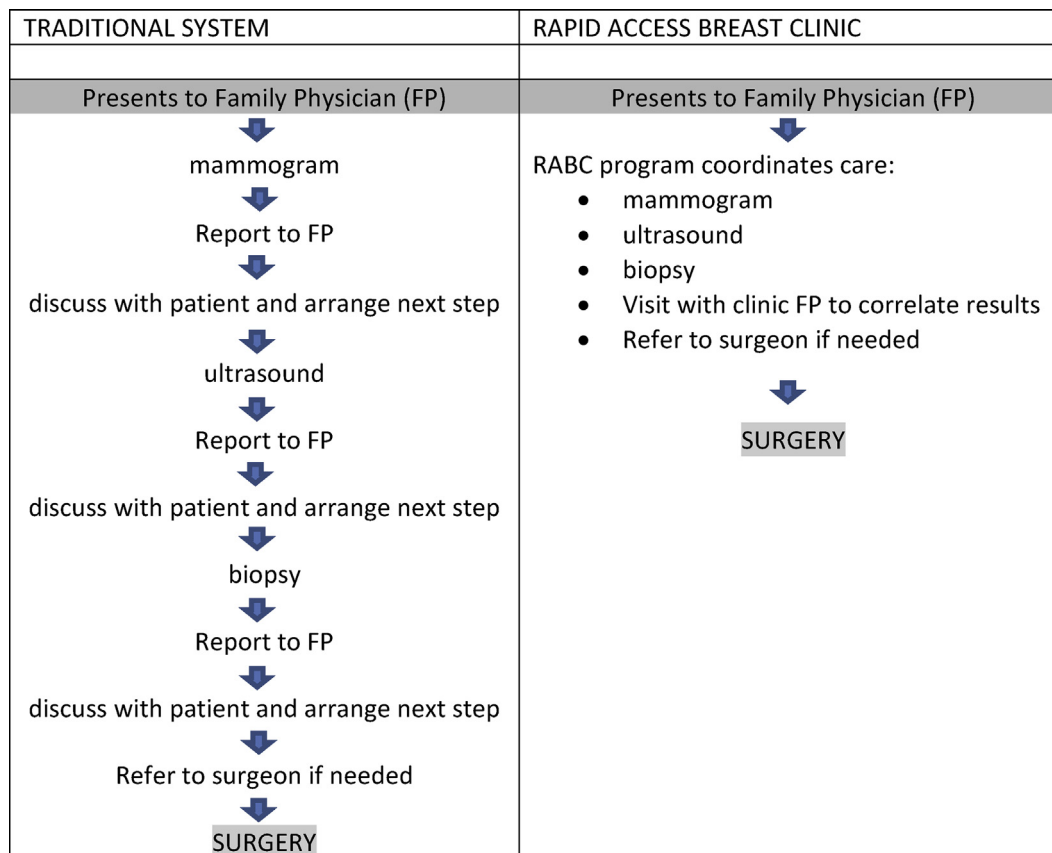

TRADITIONAL SYSTEM	RAPID ACCESS BREAST CLINIC
Presents to Family Physician (FP)	Presents to Family Physician (FP)
⬇	⬇
mammogram	RABC program coordinates care:
⬇	• mammogram
Report to FP	• ultrasound
⬇	• biopsy
discuss with patient and arrange next step	• Visit with clinic FP to correlate results
⬇	• Refer to surgeon if needed
ultrasound	
⬇	⬇
Report to FP	SURGERY
⬇	
discuss with patient and arrange next step	
⬇	
biopsy	
⬇	
Report to FP	
⬇	
discuss with patient and arrange next step	
⬇	
Refer to surgeon if needed	
⬇	
SURGERY	

Fig. 1. Comparison of care pathways in the Traditional System and Rapid Access Breast Clinic.