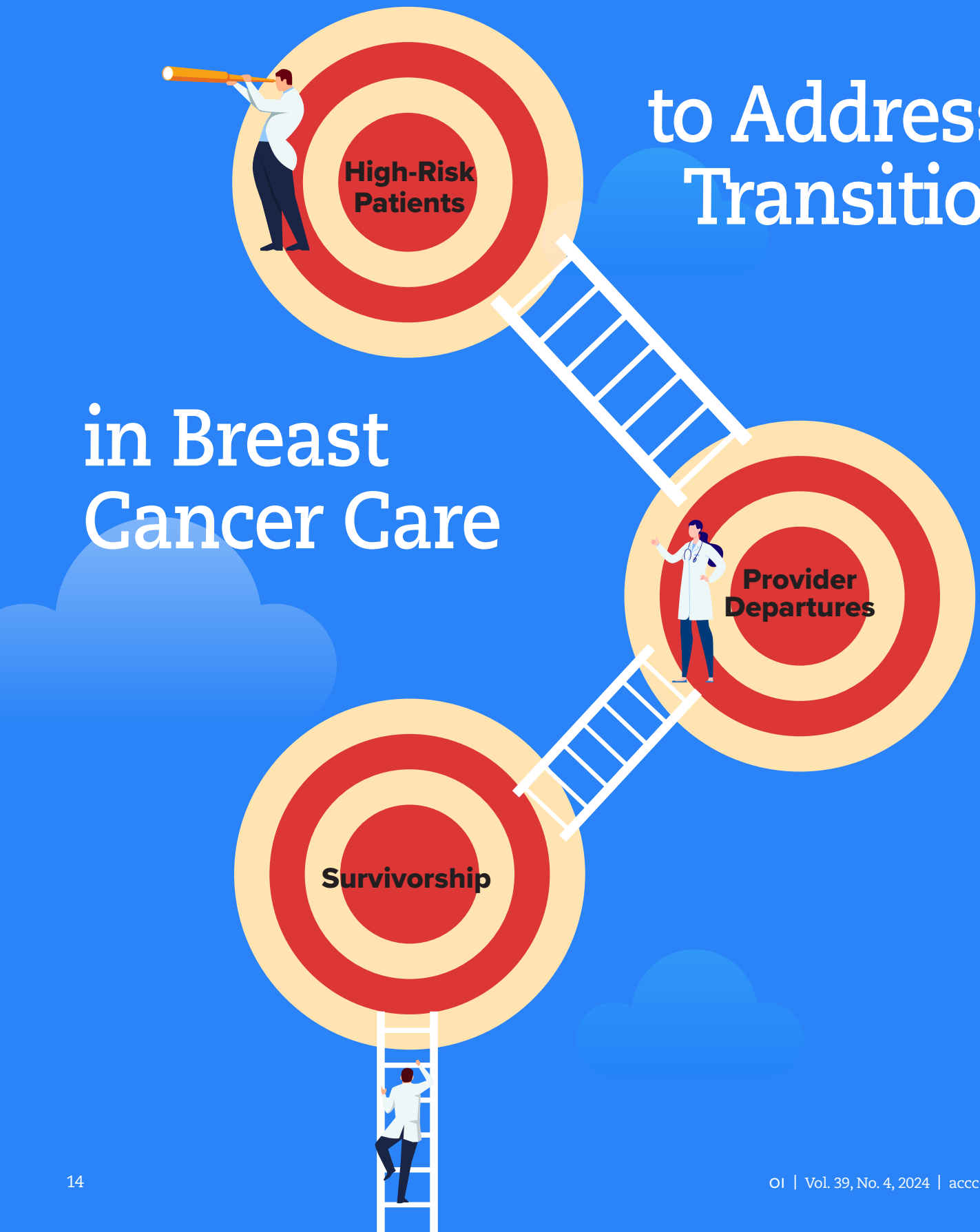
Effective Approaches to Address Transitions in Breast Cancer Care



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In Brief

Patients with breast cancer continue to live longer, patient case volumes are increasing, and creative solutions are required to see all newly diagnosed patients quickly and subsequently for longer periods of time. Creation of advanced practice provider-led clinics—including breast health, high-risk, and survivorship facilities—can help offset some of this patient volume and expand capacity to absorb patients if providers leave or retire. This invited review presents the experience, including successes and challenges, at 1 breast center.

Prognosis following a breast cancer diagnosis has significantly improved over the past several decades.[1] Even patients diagnosed with metastatic breast cancer can live for several years. As with other sites of malignancy, breast cancer is shifting to a chronic, long-term illness.[2,3] Subsequently, patient caseloads are continually increasing, and high level of care and follow-up on a long-term basis must be maintained.

Breast center directors and other health care leaders need to find creative ways to offset these volumes and ensure quality care for patients receiving active cancer treatment; at the same time, they must seamlessly maintain continuity of care for longer-term survivors. In addition to committing to patient care, administrators must support providers and avoid burnout.[4] While retirements or promotions are joyful events, they can add burden to other providers within the practice. This is particularly relevant to the care of patients with breast cancer, who may undergo treatment for 10 years or more. Here we describe how the comprehensive breast center of the Wilmot Cancer Institute at the University of Rochester Medical Center approached the reorganization of a comprehensive breast center including the development of a ***high-risk breast health program*** and formal ***breast survivorship program***. These initiatives were implemented as a long-standing breast medical oncology provider retired, causing the reassignment of hundreds of patients to the appropriate provider.

Our Methods

The Comprehensive Breast Center at the University of Rochester Medical Center's Pluta Cancer Center has been a freestanding breast center since 2008; it serves roughly 800 new breast cancer cases per year. Its faculty is comprised of 4 breast surgeons, 6 medical oncologists, and 3 radiation oncologists. Initially, there were 4 surgical advanced practice providers (APPs) and 6 medical oncology APPs. The center functioned, as many do, with providers from the active treatment teams seeing their patients for long-term follow up. Patients had appointments every 3 to 6 months through 5 years and then annually until they completed extended endocrine therapy; some patients continued attending appointments indefinitely. Additionally, both surgical and medical oncology teams were seeing patients with ductal carcinoma in situ and atypia.

> The biggest takeaway from this experience is that successful creation of new clinics or programs takes significant upfront investment from leadership.

The breast health program was created to address a need for follow-up and evaluation and long-term monitoring of high-risk patients. As part of this program, 2 more full-time equivalent (FTE) APPs were hired. Training for the breast health program's APPs was conducted in a multidisciplinary format including time spent with surgery staff, medical oncologists for risk discussions, radiation oncologists, members of the metabolic bone clinic (for managing the impact of endocrine therapy on bone health), and breast imaging professionals. Additionally, the founding APP spent substantial time in self-directed learning and curricular development, creation of pamphlets and informational handouts for patients, and consultations with APPs at other academic institutions with similar programs.

This clinic was designed to be a mix of a high-risk population, a ductal carcinoma in situ program, and an undiagnosed clinic that manages general benign breast complaints such as breast lumps,

(*Continued on page 17.*)

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Table 1. Reasons to Refer Patients to the Breast Health Program and Details on Timing

Referrals to the Breast Health Program	
Patients at an elevated risk of breast cancer	Family history of breast cancer
	Personal history of atypical cells/lobular carcinoma in situ (scheduled 3 months after excisional biopsy)
	History of multiple breast biopsies
	Dense breast tissue
	Prior thoracic/chest wall radiation
	Calculated lifetime risk>20%
Patients with ductal carcinoma in situ	Already surgically excised
	Already managed with radiation therapy, as appropriate
	Need to discuss use of adjuvant endocrine therapy
	Close surveillance
	To be scheduled 3-4 months after surgical excision (when radiation should be completed)
Patients with benign breast diseases (not limited to)	Breast infections/abscess
	Breast mass
	Granulomatous mastitis
	Papilloma with or without atypia
	Nipple discharge
	Breast pain
	Abnormal breast imaging
Prebiopsy appointments	Abnormal breast imaging (BI-RADS 4C/5)
	Visit scheduled between imaging and biopsy appointments

BI-RADS, Breast Imaging-Reporting and Data System.

(*Continued from page 15.*)

infections, and pain. **Table 1** presents the range of diagnoses encompassed by a referral to the breast health program. These include, but are not limited to, patients at an elevated risk of developing invasive breast cancer for any reason, including those with ductal carcinoma in situ, benign breast disease such as abscesses or breast pain, or abnormal breast imaging who would like to discuss what they can expect at the time of a percutaneous biopsy performed by breast imaging (prebiopsy). Patients with these presenting diagnoses were always seen at the breast center, but they would be scheduled with surgical APPs or surgeons ad hoc. Creation of the breast health program provided primary care providers with a clear referral pattern for any patient with a breast complaint.

Patients with breast cancer frequently require treatment for an extended duration of time, and endocrine therapy can last up to 10 years. Additionally, depending upon the presenting characteristics of a breast cancer (eg, the number of positive lymph nodes), the risk of late distant recurrence up to 20 years later can approach over 40%.[5] Many primary care providers provide follow-up, yet there exists a need to provide ongoing oncologic oversight to these patients and particularly those with higher risk disease at presentation. The breast

survivorship program was created to respond to this need and to provide a format for ongoing monitoring and follow-up for long-term survivors of breast cancer. It has also provided a way to counsel patients on the important aspects of wellness to reduce risks and to address sexual adverse effects (AEs) that are often present following breast cancer treatment. As part of the programmatic development, 2 FTE APPs were approved; this translated into a clinic staffed by 1 full-time and 2 part-time APPs. In addition, APPs involved in training medical professionals for the survivorship program dedicated time rotating within areas of surgery, medical oncology, radiation oncology, the metabolic bone clinic, sexual wellness, breast imaging, hereditary diseases, and occupational therapy. Each APP was encouraged to obtain an Accredited Sexual Health Provider certification with financial support from the breast center.

Figure 1 presents the patient-facing schema that describes their pathway to survivorship. The focus is on ensuring a seamless transition from the active treatment teams to the survivorship program, which was a key component identified during discussions among medical,

Figure 1. Patient-Facing Schema Explaining the Path to Survivorship

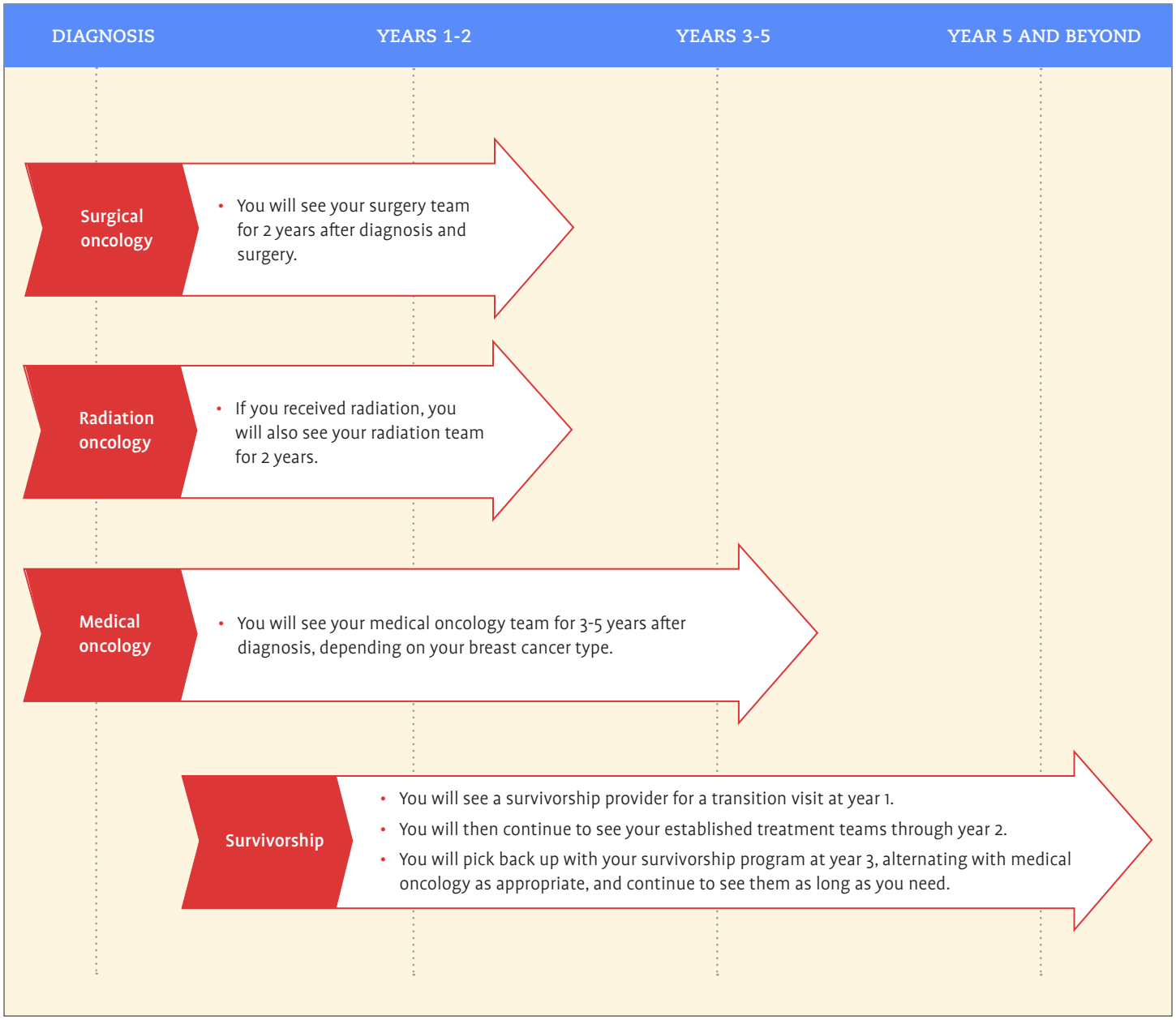
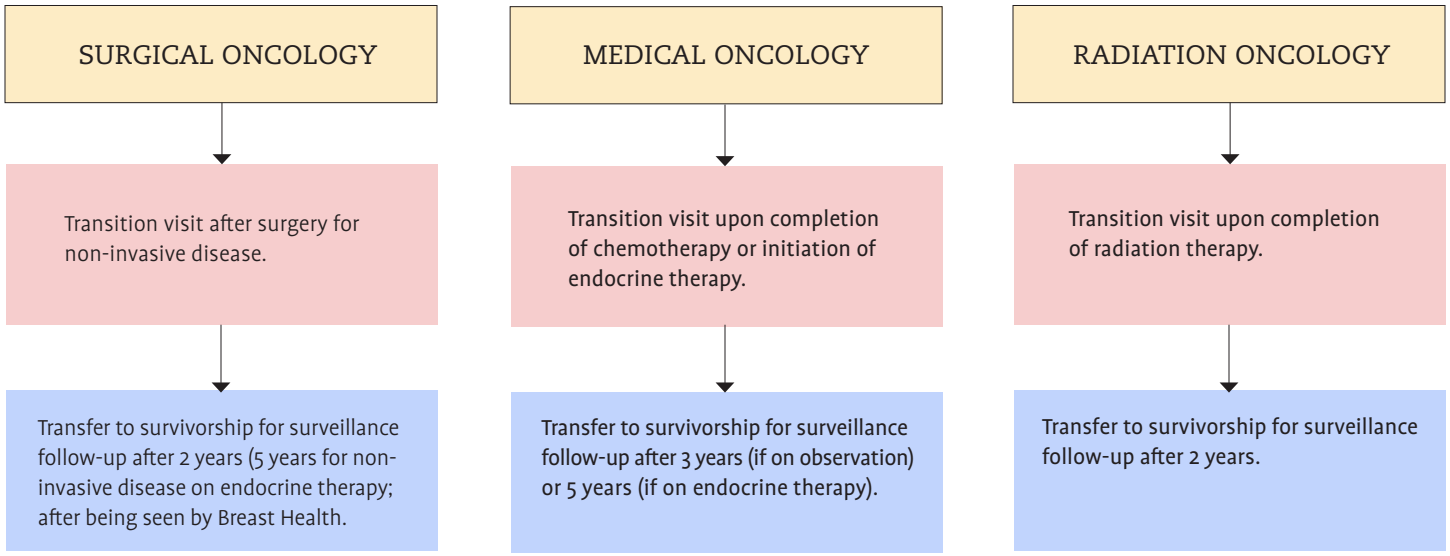


Figure 2. Provider-Facing Breast Survivorship Program Referral Timeline



surgical, and radiation oncology providers when developing the program. Patients initially meet with the survivorship team 6 to 12 months after completing active treatment (including chemotherapy and/or radiation therapy) for their *transition* visit, which includes a comprehensive summary of their treatment course, review of a survivorship care plan, and discussion about future monitoring and important lifestyle interventions to reduce cancer risk. During the third year, patients are then referred back for surveillance follow-up after being discharged from the local regional teams (surgery and radiation oncology). Between years 3 and 5, most patients alternate between areas of medical oncology and survivorship unless they are not on active treatment (declined endocrine therapy or were not candidates). In that case, they fully transition to the survivorship staff at year 3. **Figure 2** displays the provider-facing schema. **Table 2** presents a more detailed description of the path to survivorship and referral timelines that include medication management, imaging responsibilities, and extended endocrine therapy decision-making.

Letters communicating these changes were sent from the breast center director to all patients. Patients then were reallocated to the appropriate clinic. Patient lists for all providers, regardless of specialty, were searched for a ductal carcinoma in situ or atypia diagnosis, and these patients were transferred to the providers at the breast health program. Surgical providers monitored their clinics prospectively and also transferred patients with benign breast complaints to the breast health program. In terms of surgery and radiation therapy, any patient who was diagnosed with invasive breast cancer 2 years ago or more graduated from the corresponding clinic to the survivorship program. If a patient was diagnosed 2 to 5 years ago, they would then alternate appointments between medical oncology staff and the survivorship program. For medical oncology, patient lists were obtained from each provider, specifically for the years 2018 and 2023; line items were matched by name and date of birth, and duplicates were identified. (Duplicates indicated that a patient likely was seen at the breast center for over 5 years.) These were the pool of potential patients to be transferred to the survivorship program. The active treatment teams then reviewed the lists more closely and removed patients with metastases or new problems; the remaining patients were referred to the survivorship providers.

While all these activities were taking place, the cancer program saw a physician retire. Before retirement that survivorship expert oversaw the creation of the breast survivorship program with the director of the breast center to ensure smooth transition of patients.

Table 2. Survivorship Clinic Management and Referral Guidelines

Survivorship care plan review (transition) visit at 1 year.
Patients will follow with their (in house) surgery team until year 2.
Patients will follow with their radiation oncology team until year 2.
Through year 2, patients will see providers every 3-6 months depending on the individual patient plan and breast cancer treatments.
Patients will continue follow-up with their treating medical oncology team through 5 years.
From years 3-5, the patient will graduate from acute surgery and radiation needs. The patient will follow up with their medical oncology treatment team and the survivorship team until year 5 then transition fully to the survivorship team thereafter.
During the years that the patient is co-managed (medical oncology team and the survivorship program), the primary oncology team will remain responsible for medication management, including refills, and other acute medical issues that arise during that time. For systemic recurrence concerns, the survivorship team will order the appropriate imaging and defer to the primary team as appropriate.
To the best of our ability, the survivorship appointment will align with the patient's annual imaging. If there is a need for biopsy, the survivorship team will coordinate, manage, and discuss benign biopsies with the patients and will refer to the prior surgical team if the biopsy needs action taken.
The patient will transition fully to the survivorship clinic at 5 years.
For patients on endocrine therapy, the decision to discontinue treatment at 5 years or continue extended endocrine therapy will be made at the 5-year appointment with the medical oncology team. This process will be clearly noted in their clinic note and communicated to the survivorship team. Survivorship will manage endocrine therapy for years 5-7 or 5-10 based on the medical oncology plan. It is anticipated that patients' symptoms will be stable on their endocrine therapy. The survivorship team has training in bone health, special sexual wellness certifications, and e-consultation services with those specialists available to them for difficult cases.

Their patient lists were handled in the same way as described above, except all patients diagnosed within 5 years (2019 to 2023) were also collected. These patients stayed with the physician's existing APP but were assigned to a new attending physician as that APP's back up, with the volume of patients aligning with each physician's clinical FTE. Each new assigned team handled this slightly differently. Most teams continued to work directly with the existing APP for that patient, whereas some slowly transitioned the patient to their team entirely after 1 to 2 visits.

Our Results

After the creation of these programs, there was a learning curve for scheduling new patients, and educating the new patient intake team was an important first step in the overall process. **Table 3** shows the resource provided to our new patient intake team to appropriately triage patients to surgery versus a breast health provider. For example, if a patient has a biopsy, and the pathology result is concordant and not typically excised based on the best evidence available to date, patients are initially scheduled with the breast health provider team. We anticipated that as part of the educational process for our new patient intake team, there would be calls from patients who completed their active treatment but desired to establish care with our breast cancer team. **Table 4** presents an example of the script provided to accommodate these patients.

The schedule of the breast health program quickly filled, and the demand was almost overwhelming. Within 6 months of clinic creation, the first APP was booked out 4 months, revenue was more than covering their salary, and the second APP position was urgently posted. The survivorship program absorbed hundreds of patients—2 different treatment teams alone provided just over 400 patients each. The medical oncologists were no longer seeing patients with ductal carcinoma in situ or atypia; as a result, these physicians were more available to focus their patient slots on patients with newly diagnosed or metastatic breast cancer.

Feedback from referring providers has been good. They have a sense that we are now a team that will see any patient for any complaint. Providers from other cancer specialties have also been referring to this clinic, as breast imaging findings are a common point of stress for patients and survivors of other cancers. In general, patient feedback has been tremendously positive. For example, we received a letter of gratitude from a patient from the survivorship program within weeks of the program's initiation that referenced that the visit was thorough and the focus on quality of life and sexual wellness was refreshing.

As the clinics became busier, we found a need to establish an electronic consultation (eConsult) mechanism, but this need was different for each clinic. We initiated eConsults for lactation medicine providers first; it was then expanded to all primary care providers at the breast health program, thus increasing our availability to our medical center's providers. The eConsults are available to a pool of providers including the 2 APPs, a breast health program surgical director, and the breast center director, who happens to be a breast surgeon. These questions have included appropriate imaging in a lactating breast, follow-up for findings when lactation is complete, the appropriate diagnostic imaging for a nonlactating breast complaint, and the treatment of breast pain. A new director of the breast survivorship program was identified after

Table 3. Reasons to Refer Patients to the Breast Health Program and Details on Timing

Lesion	Provider	Risk Counseling Needed?
Atypical ductal hyperplasia	Surgeon	Yes
Atypical lobular hyperplasia	Breast health	Yes
Classic lobular carcinoma in situ	Breast health	Yes
Non-classic lobular carcinoma in situ	Surgeon	Yes
Intraductal papilloma with atypia	Surgeon	Yes
Intraductal papilloma with symptoms	Surgeon	No
Intraductal papilloma without atypia	Breast health	No
Nipple discharge, workup incomplete	Breast health	No (pending workup)
Flat epithelial atypia	Surgeon	No
Complex sclerosing lesion/radial scar	Surgeon	No
Breast abscess	Breast health	No
Granulomatous mastitis	Breast health	No

[a]Patients with benign breast disease are referred initially to either a surgical provider or a breast health program provider based on biopsy pathologic findings. Postoperatively, all patients follow up with the breast health provider regardless of initial consultation.

the prior director's retirement, and the volume of acute medical questions being fielded by the new director was high. We established an eConsult for the APPs of the breast survivorship program to query the medical director; this provides a mechanism to document responses to questions and make recommendations within the patient record. It also provides a secondary goal of tracking the volume of questions and the time spent in answering to account for the director's time with a future goal of advocating for the appropriate clinical FTE relief. Common questions have involved duration of endocrine therapy, persisting AEs from ongoing treatment, and guidance regarding addressing concerns about recurrent disease.

Discussion

We have had significant success with the restructuring of our breast center model through the creation of 2 new clinics. Consequently, the newly created breast health and breast survivorship programs accommodated hundreds of patients, freeing up active treatment teams for more timely scheduling of newly diagnosed patients.

There have, of course, been unexpected challenges. For example, how would we triage a patient with ductal carcinoma in situ who has undergone bilateral mastectomy? This individual is often considered a patient with cancer although they did not have invasive breast cancer or need endocrine therapy. The surgery team referred this patient to the breast health program at 3 to 4 months just like other patients with ductal carcinoma in situ; at 3 years, these patients transitioned to the survivorship program, because they were not taking endocrine therapy (similar to our patients with invasive breast cancer who decline treatment in favor of observation alone). Patients with intact breasts after treatment for ductal carcinoma in situ are encouraged to start endocrine therapy. Still, they are seen in the breast health program for 5 years and then are transitioned to the breast survivorship program. Most patients at risk, like those with atypia, in the breast health program are followed indefinitely, but patients with ductal carcinoma in situ are treated in a hybrid way—first in the breast health program and then in the survivorship program.

Another unanticipated issue has involved patients referred to the survivorship program without clear plans for extended endocrine therapy. The lack of clear benefit of extended endocrine therapy for many patients leaves ambiguity, which is difficult to manage when accepting patients from 6 different active treatment teams to 3 different

Table 4. Sample Script for New Patient Intake Personnel to Triage Patients with Breast Cancer from Active Treatment to Survivorship

Script for patients wishing to establish care with us, but their treatment is complete.	
If there is no acute problem and/or question	"We are so happy to have you join the [insert name] Breast Care Center family. Because your treatment is complete, we would like you to see our breast survivorship team. They specialize in the long-term follow up of patients with breast cancer, including your surveillance imaging, health maintenance like scheduling colonoscopies, and sexual health. The next available is appointment is _____."
If there is an acute problem and/or question	"I'm happy to set you up with Dr. [insert name] for your surgical problem (or Dr. [insert name] for your medical question). They will address your acute issues. After that, you will establish care with our breast-specialized survivorship team. They're fantastic. Dr. [insert name]'s team will facilitate this transition."

providers in the survivorship program.[6,7] We have addressed this issue by having the referring provider team establish a defined recommendation at the patient's last medical oncology visit before the transition to the survivorship program; however, if this recommendation has not occurred, the APP in the survivorship program reaches back to the primary treatment team for clarification. If a patient no longer has a primary oncologist at the center (such as patients from outside referrals or the recently retired physician), the eConsult mechanism to the director of the breast survivorship program is used. Micromanagement is not the goal, but successful transition requires some uniformity of practice. This is an area of continued improvement.

Close communication between providers on all teams is critical. For example, the patients who are seen by providers in the breast health program for atypical lobular neoplasia may need a referral to a surgeon for reasons such as ultimate symptoms, discordance, and lesion changes per imaging. Persistent nipple discharge is another common reason that a patient may be referred from the breast health program to a surgeon. For the survivorship program, a patient may report symptoms that may indicate metastases and that may require body imaging with a referral back to medical oncologists if there are positive findings. If a long-term survivor has a new breast lump, the workup is initiated by the provider from the survivorship program, but the patient also needs to be seen by the surgical treatment team.

Patients who are followed by the survivorship team may not have an attending medical oncologist assigned; this may include patients who are referred directly to the program or whose provider retired. A system was needed to promptly assign those patients to an attending physician in the unfortunate event of recurrence. We created a simple rotation among medical oncologists to address this need. In contrast to the retired physician's patient list reassignment, we did not weigh the assignments by providers' clinical FTEs, as recurrence is a relatively uncommon event, and the system need not be overcomplicated.

A delightful, albeit unexpected, outcome of these programs has been a robust trainee educational opportunity. The breast health program hosts family medicine residents, a medicine fellow from the division of lactation medicine, a fellow from breast surgery, and nurse practitioner students. Medicine residents and medical oncology fellows have provided profuse positive feedback for the survivorship and sexual wellness appointments, citing lack of education in these areas as a weakness of traditional training. Here they have been learning the late AEs related to treatment and aspects to notice during a routine visit with a cancer survivor.

The biggest takeaway from this experience is that successful creation of new clinics or programs takes significant upfront investment from leadership. At least 4 full FTEs were supported early in this process, with more to come. If lacking, one can advocate for this support by providing leadership with detailed business plans including projections for increased new patient visit volume, resultant chemotherapy starts, and long-term (often semi-annual) breast imaging for high-risk screening or surveillance. These services offer significant financial return on investment. More importantly, our high-risk and survivorship programs provide patient care of the highest quality. Several patients have expressed that they are thankful to have the survivorship program in place to give them the option to continue to follow at the breast center long-term, whereas previously they had been told they would be discharged to their primary care or gynecology provider after 5 years. Patients also greatly appreciate the time spent reviewing their treatment summary and care plan, the emphasis on maintaining a healthy lifestyle, and open discussions of sexual wellness.

In conclusion, the creation of new APP-led clinics serving patients with benign or high-risk breast disease and survivors can ease the

burden on active treatment team providers as it improves the care delivered. Having clear guidelines on transition timelines based on diagnosis is key to ensuring that patients are seen in the most appropriate clinic at the appropriate time. Models such as this can increase clinical productivity, revenue, and patient satisfaction. It is a win-win-win. OI

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