Are primary care providers implementing evidence-based care for breast cancer survivors?

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Abstract

Objective To describe the implementation of key best practice guideline recommendations for posttreatment breast cancer survivorship care by primary care providers (PCPs).

Design Descriptive cross-sectional survey.

Setting Southeastern Ontario.

Participants Eighty-two PCPs: 62 family physicians (FPs) and 20 primary health care nurse practitioners (PHCNPs).

Main outcome measures Twenty-one "need-to-know" breast cancer survivorship care guideline recommendations rated by participants as "implemented routinely," "aware of guideline recommendation but not implemented routinely," or "not aware of guideline recommendation."

Results Overall, FPs and PHCNPs in our sample reported similar practice patterns in terms of implementation of breast cancer survivorship guideline recommendations. The PCPs reported routinely implementing approximately half (46.4%, 9.7 of 21) of the key guideline recommendations with breast cancer survivors in their practices. Implementation rates were higher for recommendations related to prevention and surveillance aspects of survivorship care, such as mammography and weight management. Knowledge and practice gaps were highest for recommendations related to screening for and management of long-term effects such as fatigue and distress. There were only a few minor differences reported between FPs and PHCNPs.

Conclusion There are knowledge and practice gaps related to implementation of the key guideline recommendations for breast cancer survivorship care in the primary care setting that could be targeted for improvement through educational or other interventions.

EDITOR'S KEY POINTS

- Breast cancer is the most common cancer affecting Canadian women. Primary care involvement in posttreatment follow-up is evolving, as growing patient numbers, increasing health care costs, and a limited supply of oncologists affect the accessibility of follow-up care. This study examined primary care providers' (PCPs') knowledge and implementation of guideline recommendations for breast cancer survivorship care.

- Fewer than half of 21 key guideline recommendations were routinely implemented with most breast cancer survivors, and overall PCPs were not aware of 28.5% of the key recommendations. Rates of routine implementation of guideline recommendations ranged from 87.8% for annual mammography to only 14.6% and 11.0% for distress and fatigue screening, respectively.

- Educational or other multicomponent interventions to address the identified knowledge and practice gaps could support PCPs as they increasingly provide survivorship care in primary care settings.

This article has been peer reviewed.
Can Fam Physician 2015;61:978-84

Les intervenants de première ligne donnent-ils aux survivantes du cancer du sein des soins basés sur des données probantes?

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Résumé

Objectif Vérifier si les intervenants de première ligne (IPL) suivent les directives de pratique dans le suivi post-traitement des survivantes du cancer du sein.

Type d'étude Enquête descriptive transversale.

Contexte Le sud-ouest de l'Ontario.

Participants Un total de 82 IPL, soit 62 médecins de famille (MF) et 20 infirmières praticiennes des soins primaires (IPSP).

Principaux paramètres à l'étude Vingt-et-une directives essentielles à connaître pour le suivi des survivantes du cancer du sein, qui ont été cotées par les participants comme régulièrement appliquées, connues mais non appliquées régulièrement ou non connues.

Résultats Dans l'ensemble, les MF et les IPSP participants ont rapporté des modèles de pratique semblables pour ce qui est de l'application des directives de pratique pour le suivi des survivantes du cancer du sein. Les IPL disaient utiliser régulièrement environ la moitié (46,4%, 9,7 sur 21) des recommandations clés dans leur pratique. Les taux d'application des directives étaient plus élevés pour celles qui concernaient les aspects de prévention et de surveillance, tels que la mammographie et la gestion du poids corporel. On observait les plus grands manques de connaissances et d'application des recommandations dans le cas du dépistage et du traitement des effets à long terme, comme la fatigue et la détresse. On rapportait seulement quelques différences mineures entre les MF et les IPSP.

Conclusion Il existe un manque de connaissances et de mise en application des directives clés chez les IPL qui font le suivi des survivantes du cancer du sein; des séances de formation ou d'autres types d'intervention seraient donc souhaitables.

POINTS DE REPÈRE DU RÉDACTEUR

- Le cancer du sein est le cancer le plus fréquent chez les Canadiennes. La participation des intervenants de première ligne au suivi post traitement évolue; en effet, le nombre croissant de patientes, les coûts plus élevés des soins et le nombre limité d'oncologistes nuisent à l'accès à ce type de soins. Cette étude visait à savoir si les intervenants de première ligne (IPL) connaissent les directives concernant le suivi des survivantes du cancer du sein et s'ils les appliquent.

- Moins de la moitié de 21 directives clés ont été mises en pratique de façon routinière chez la plupart des survivantes du cancer du sein et, dans l'ensemble, les IPL ignoraient 28,5% de ces directives. L'application routinière des directives variait de 87,8% pour la mammographie annuelle à seulement 14,6% et 11,0%, respectivement pour le dépistage de la détresse et celui de la fatigue.

- Parce que les IPL interviennent de plus en plus dans le suivi des survivantes du cancer du sein, il devient nécessaire de leur offrir des formations ou d'autres interventions à différents niveaux pour corriger les déficiences observées au niveau des connaissances et de leur application.

Cet article a fait l'objet d'une révision par des pairs.
Can Fam Physician 2015;61:978-84

Breast cancer is the most common cancer affecting Canadian women, representing 26% of all new cancer cases, with an estimated 24 400 new cases diagnosed in 2014.[1] Primary care involvement in posttreatment follow-up is evolving, as growing patient numbers, increasing health care costs, and a limited supply of oncologists affect the accessibility of follow-up care.[2-5] Breast cancer patients might experience difficulties transitioning to survivorship.[6] Following cancer treatment they are at risk of numerous debilitating physical and psychosocial consequences such as pain, fatigue, depression, and lymphedema.[7] Survivors might continue to experience long-term effects of their treatment or develop late effects months or years later. Unfortunately primary care providers (PCPs) might lack knowledge about the consequences of cancer treatment and optimal care for cancer survivors.[8,9]

The seminal report from the Institute of Medicine *From Cancer Patient to Cancer Survivor: Lost in Transition*[10] synthesized what is known about cancer survivorship and established the survivorship period as an important new focus for care extending beyond long-term surveillance to include many previously unaddressed medical and psychosocial needs of survivors.[11] The Institute of Medicine report specifically outlines 4 essential components of survivorship care: prevention of recurrent and new cancers, and other late effects; surveillance for cancer spread, recurrence, second cancers, and medical and psychosocial late effects; intervention for consequences of cancer and its treatment; and coordination between specialists and PCPs to ensure all health needs are met.[10]

Many cancer programs are moving forward with earlier discharge of stable early stage breast cancer survivors from oncology to primary care follow-up within 2 years of cancer diagnosis and following completion of primary treatment.[12] As each PCP might only be seeing 1 to 2 newly discharged breast cancer survivors per year, it can prove challenging for them to remain up to date about best practices in breast cancer survivorship care.[12] At a minimum, PCPs need to know that clinical practice guidelines applicable to follow-up care of breast cancer survivors are available and they need to know how to access them. However, no single guideline addresses all essential components of survivorship care; thus, it is unclear which guidelines are currently being accessed and applied in primary care settings.

As a result, our research team previously conducted an extensive search, appraisal, and synthesis of clinical practice guidelines for posttreatment breast cancer care using a modified Delphi method. Our "Comprehensive Framework and Key Guideline Recommendations for the Provision of Evidence-Based Breast Cancer Survivorship Care" was published along with a 5-page supplemental data file that provides a comprehensive synthesis for PCPs.[13] The key guideline recommendations were verified by an expert panel consisting of an oncologist, an oncology nurse practitioner (NP), 3 family physicians (FPs), 3 primary health care nurse practitioners (PHCNPs), and 7 breast cancer survivors who rated the recommendations as "need to know" (high importance, essential, or must do), "nice to know" (important, relevant, or nice to do), or "not relevant to primary care" (not important or does not need to be done). Panel members also ranked the most important recommendations for each of 21 identified survivorship issues. Top-ranking recommendations for each issue were included as survey items for the current study.

The objective of the current study was to describe implementation of key best practice guideline recommendations for posttreatment breast cancer survivorship care by FPs and PHCNPs in southeastern Ontario. Specific research questions were the following:

- Which of 21 key guideline recommendations for posttreatment breast cancer survivorship care are currently being implemented by PCPs?
- What are the knowledge gaps among PCPs related to 21 key guideline recommendations for posttreatment breast cancer survivorship care?
- Are there any differences between FP and PHCNP practices and knowledge gaps related to 21 key guideline recommendations for posttreatment breast cancer survivorship care?

METHODS

Study design and sample

This study consisted of a cross-sectional survey of FPs and PHCNPs within the South East Local Health Integration Network. A list of PCPs was generated from the College of Physicians and Surgeons of Ontario and individual family health team or community health centre websites. Practitioners who were retired, had less than 1 year of primary care experience, had moved, or were practising in another specialty role or setting were excluded, leaving a total of 321 FPs and 45 PHCNPs eligible to participate.

Data collection

This study received ethical approval from the Health Sciences and Affiliated Teaching Hospitals Research Ethics Board of Queen's University in Kingston, Ont. A multimodal recruitment and incentive strategy was employed to address known barriers to recruitment of PCPs.[14-17] A subsample of 15 PCPs pilot-tested the survey at 2 professional meetings. No changes were required before electronic distribution through the Office of Continuing Professional Development at Queen's University. Subsequently, hard copies of the survey were mailed to eligible individuals who had not already completed the survey. Data collection occurred before the commencement of early discharge of breast cancer patients in the South East Local Health Integration Network and before the publication of our guideline synthesis.[13]

Demographic data were collected regarding PCPs' age, sex, years in primary practice, practice setting, practice type, and case load size. Twenty-one "need-to-know" breast cancer survivorship care guideline recommendations were rated by participants as "implemented routinely" (with 50% or more of breast cancer survivors in their practices), "aware of guideline recommendation but not implemented routinely," or "not aware of guideline recommendation."

Data analysis

Study variables were described with standard univariate statistics (frequencies and percentages, means and standard deviations). Group comparisons were conducted using independent *t* tests, Mann-Whitney U tests, and χ^2 tests.

RESULTS

Surveys were completed by 82 PCPs (62 FPs and 20 PHCNPs), representing an overall response rate of 22.4%. Response rates varied significantly by profession, with 44.4% of eligible PHCNPs completing the survey versus 19.3% of eligible FPs ($\chi^2_1=14.34$; $P=.001$). There were no significant differences between FP participants and non-participants in terms of sex, practice setting, practice type, or primary care experience. The PHCNP participants were more likely to practise in urban settings than non-participants; however, statistical testing was not possible owing to the small sample size.

Characteristics of the study participants are presented in **Table 1**. Overall, more participants were female (59.8%) and practised in urban settings (69.5%) and on interdisciplinary teams (59.8%). The FPs in the sample were significantly older (51.8 years) than the PHCNPs (45.0 years; $P=.018$), and FPs had more experience in primary care (21.9 years) than PHCNPs (5.2 years) did ($P=.001$).

Table 1. Study participant characteristics: *A) Frequencies, B) mean values.*

A) CHARACTERISTIC	FAMILY PHYSICIANS (N = 62), N (%)	PRIMARY HEALTH CARE NURSE PRACTITIONERS (N = 20), N (%)	TOTAL (N = 82), N (%)
Sex			
• Male	30 (48.4)	3 (15.0)	33 (40.2)
• Female	32 (51.6)	17 (85.0)	49 (59.8)
Practice setting			
• Urban	42 (67.7)	15 (75.0)	57 (69.5)
• Rural	20 (32.3)	5 (25.0)	25 (30.5)
Practice type			
• Interdisciplinary team total	30 (48.4)	19 (95.0)	49 (59.8)
-Family health team	25 (40.3)	16 (80.0)	41 (50.0)
-Community health centre	5 (8.1)	3 (15.0)	8 (9.8)
• Physician group total	25 (40.3)	1 (5.0)	26 (31.7)
-Family health organization	18 (29.0)	1 (5.0)	19 (23.2)
-Physician group practice	7 (11.3)	0 (0.0)	7 (8.5)
• Physician solo practice	7 (11.3)	0 (0.0)	7 (8.5)

B)	FAMILY PHYSICIANS (N = 62)		PRIMARY HEALTH CARE NURSE PRACTITIONERS (N = 20)		TOTAL (N = 82)	
CHARACTERISTIC	MEAN (SD)	RANGE	MEAN (SD)	RANGE	MEAN (SD)	RANGE
Age, y[*]	51.8 (10.4)	30-75	45.0 (10.6)	27-62	50.1 (10.8)	27-75
Time in primary care practice, y[†]	21.9 (11.8)	1-46	5.2 (4.8)	1-20	17.8 (12.8)	1-46
Estimated breast cancer survivor case load	15.8 (11.9)	1-50	12.1 (9.6)	2-36	14.9 (11.5)	1-50
Estimated breast cancer survivor visits yearly	2.2 (1.1)	1-5	2.7 (2.5)	1-12	2.3 (1.6)	1-12

[*] Student *t* test = 2.49; *df* = 32; *P* = .018.

[†] Mann-Whitney U test = 122.5; *P* = .001.

Survey results are presented in **Table 2**. Routine guideline implementation rates ranged from 87.8% for annual mammography to only 11.0% for fatigue screening. Overall, only 8 of the 21 key guideline recommendations were routinely implemented by most PCPs in the sample. Individual PCPs reported routinely implementing an average of 46.4% (9.7 out of 21) of key guideline recommendations with breast cancer survivors in their practices. Overall, FPs and PHCNPs did not differ in their implementation rates, and significant practice differences between FPs and PHCNPs were found for only 2 out of the 21 items: nonroutine tests (59.7% vs 25.0%, respectively; $\chi^2_1=7.28$; $P=.007$) and hot flushes (53.2% vs 10.9%, respectively; $\chi^2_1=11.55$; $P=.001$).

Knowledge gaps related to individual recommendations ranged from 6.1% being unaware of the recommendation for mammography to 53.7% being unaware of the recommendation for fatigue screening. On average, PCPs reported they were unaware of 28.5% of the recommendations. Significant knowledge differences between FPs and PHCNPs were noted for 4 guideline recommendations: vaccines (30.6% vs 55.0%, respectively; $\chi^2_1=3.87$; $P=.049$), follow-up (16.1% vs 45.0%, respectively; $\chi^2_1=7.08$; $P=.008$), nonroutine tests (27.4% vs 75.0%, respectively; $\chi^2_1=14.9$; $P=.001$), and hot flushes (14.5% vs 55.0%, respectively; $\chi^2_1=13.5$; $P=.001$).

DISCUSSION

Overall, FPs and PHCNPs in our sample reported similar practice patterns in terms of implementation of breast cancer survivorship guideline recommendations. Less than half of these recommendations (46.4%) were routinely implemented with most breast cancer survivors, and overall PCPs were not aware of 28.5% of the key guideline recommendations. Implementation rates were higher for prevention and surveillance aspects of survivorship care, such as mammography and weight management. These results align with results from a survey of PCPs from northeastern Ontario, who indicated they were most confident with screening for recurrence and counseling on nutrition and exercise.[18] Knowledge and practice gaps in our study were highest for recommendations related to screening for and management of long-term effects such as fatigue and distress. Similarly PCPs from northeastern Ontario were less confident in management of treatment-related side effects.[18]

Higher knowledge and practice rates for prevention recommendations were expected, as these should be familiar to PCPs owing to their relevance to the general population; however, almost a quarter of participants reported they were not aware of these guidelines, which are particularly important for breast cancer survivors, who are at increased risk of morbidity and mortality as a result of their cancer diagnosis.[19] In our region, following completion of our survey, surveillance guidelines based on the American Society of Clinical Oncology follow-up guidelines have been provided to PCPs upon discharge of breast cancer survivors to their care.[20] Thus, PCPs will become familiar with these guidelines as they accept more breast cancer survivors for follow-up. As the PHCNPs in our sample reported fewer years in primary care, they would have less experience providing this care, which might explain their larger knowledge gaps related to surveillance aspects of survivorship care.

Similar to reports in the literature, our sample of PCPs reported larger knowledge and practice gaps related to screening for and managing long-term symptoms such as fatigue and distress. Research suggests that only a small subset of FPs provide multidimensional survivorship care including management of late effects and mental health, with inadequate preparation and lack of formal training cited as barriers to providing this care.[21] In one study, only 23% of participants reported confidence in caring for the late physical effects of cancer.[22] In another study, only 41% of breast cancer survivors perceived their PCPs to be knowledgeable in treating cancer-related symptoms.[23] A large proportion of breast cancer patients in a randomized controlled trial reported difficulty discussing their concerns and wanted the doctor to tell them more about their problems and treatment.[24]

Consequences of a lack of knowledge of guideline recommendations might be reflected in attitudes toward survivorship care. For example, in one study PCPs were less likely than other specialists were to strongly agree that the purpose of follow-up was to detect late effects of treatment (18% vs 33%) and to provide psychological support for patients and caregivers (27% vs 39%).[25] This is concerning, as these are 2 key foci for survivorship follow-up, and attitudes might influence willingness to provide this care. It is also concerning that clinicians in another study valued clinical reasons for follow-up more highly than supportive reasons ($P<.001$).[26] However, some PCPs might believe that survivorship care is mostly to detect recurrences and new cancers but at the same time be very willing to address late effects and psychosocial concerns, whereas others might not. Experience is another factor that might influence attitudes. For example, in a recent Canadian study, FPs who followed more breast cancer survivors in their practices reported higher confidence in managing their follow-up.[27] Further, NPs in northeastern Ontario have reported lower confidence levels than FPs have,[18] which might reflect less primary care experience.

The number of PHCNPs is increasing in Ontario and across Canada.[28,29] Survivorship care provided by NPs has been found to be analogous to care provided by FPs, as they manage comorbidities and long-term treatment sequelae and provide referrals.[30] Several studies describe various roles NPs play in providing survivorship care.[31-33]

Table 2. Implementation of breast cancer survivorship guideline recommendations by primary care providers: *N* = *82.*

ISSUE OR TOPIC	KEY GUIDELINE RECOMMENDATION	IMPLEMENTS ROUTINELY, N (%)	AWARE OF BUT DOES NOT IMPLEMENT ROUTINELY, N (%)	NOT AWARE, N (%)
Mammogram	Recommend annual bilateral mammogram or, in case of unilateral mastectomy, annual mammogram of the contralateral breast	72 (87.8)	5 (6.1)	5 (6.1)
Contraception	Hormonal contraceptives are not recommended for women with breast cancer; barrier methods are preferred (condoms, diaphragms, IUD, tubal ligation, or partner vasectomy)	71 (86.6)	6 (7.3)	5 (6.1)
Osteoporosis	Postmenopausal or premenopausal survivors with risk factors for osteoporosis, or those taking aromatase inhibitors, should undergo a BMD test (by DEXA scan) at baseline and then every 1-2 y	55 (67.1)	13 (15.9)	14 (17.1)
Weight management	Encourage breast cancer survivors to achieve and maintain a healthy weight (BMI 20-25 kg/m^2)	55 (67.1)	16 (19.5)	11 (13.4)
Nutrition	Encourage breast cancer survivors to obtain needed nutrients through dietary sources; consider supplements only if nutrient deficiency is demonstrated	53 (64.6)	14 (17.1)	15 (18.3)
Alcohol consumption	Encourage cancer survivors to limit alcohol consumption to no more than 1 drink/d for women or 2 drink/d for men	49 (59.8)	18 (22.0)	15 (18.3)
BSE	Counsel breast cancer survivors to perform monthly BSE and inform them that BSE does not replace mammography as a breast cancer surveillance tool	42 (51.2)	15 (18.3)	25 (30.5)
Nonroutine tests	In the absence of clinical findings, the following tests are not recommended for routine follow-up: CBC; liver or kidney function tests; chest x-ray scan; bone scan; liver or abdominal ultrasound; CT scan; FDG-PET scan; breast MRI; testing for breast cancer tumour markers (eg, CA 15-3, CA 27.29, CEA)	42 (51.2)	8 (9.8)	32 (39.0)
Vaccines	Encourage the following vaccines, following usual doses and schedules: TIV, pneumococcal (PPSV-23, PCV-13); tetanus, diphtheria, pertussis; and HPV	40 (48.8)	12 (14.6)	30 (36.6)
Pain	Consider nonpharmacologic interventions for pain in conjunction with pharmacologic ones: bed, bath, and walking supports; TENS; positioning; energy conservation; acupuncture or acupressure; physical therapy; exercise; psychosocial, behavioural, or interventional procedures	39 (47.6)	28 (34.1)	15 (18.3)
Hot flushes	Consider SSRIs or SNRIs to reduce severity of hot flushes; caution must be used when using these agents in conjunction with tamoxifen; gabapentin and clonidine are other options for management of hot flushes	35 (42.7)	27 (32.9)	20 (24.4)
Exercise	Recommend weekly exercise: at least 150 min of moderate-intensity activity, strength training, and stretching of major muscle groups and tendons	34 (41.5)	20 (24.4)	28 (34.1)
Follow-up	All survivors should have a careful history and physical examination every 3-6 mo for the first 3 y after primary treatment, every 6-12 mo for the next 2 y, then annually	34 (41.5)	29 (35.4)	19 (23.2)
Fatigue activity	Recommend engaging in 30 min of moderate-intensity physical activity most days unless contraindicated (eg, fast walking, cycling, swimming, and resistance training)	31 (37.8)	25 (30.5)	26 (31.7)
Lymphedema	Strength training has been shown to be safe for survivors with lymphedema and might improve lymphedema symptoms	27 (32.9)	19 (23.2)	36 (43.9)
Cognitive dysfunction	Consider instruction in self-management and coping strategies, relaxation, stress management, and routine exercise	27 (32.9)	33 (40.2)	22 (26.8)
Gynecologic examination	Women taking tamoxifen should have a gynecologic assessment every 12 mo if uterus present	26 (31.7)	22 (26.8)	34 (41.5)
Screening	Screen all survivors periodically to determine needs and interventions for symptoms experienced in the past 4 mo: anxiety and depression; cognitive function; exercise; fatigue; immunizations or infections; pain; sexual function; and sleep disorders	23 (28.0)	33 (40.2)	26 (31.7)
Sexual functioning	Ask survivors about their sexual function at regular intervals, including their sexual functioning before cancer treatment, their current activity, and how cancer treatment has affected their sexual functioning and intimacy	23 (28.0)	34 (41.5)	25 (30.5)
Distress screening	Screen all survivors for anxiety and depression at transition to survivorship and regular intervals using a 0-10 severity rating scale (0 = no anxiety or depression; 10 = worst you can imagine) or NCCN brief distress screening tool	12 (14.6)	27 (32.9)	43 (52.4)
Fatigue screening	Screen all survivors for fatigue at regular intervals using a 0-10 severity rating scale such as ESAS (0 = no fatigue; 10 = worst you can imagine) or have survivors rate their fatigue as none, mild, moderate, or severe	9 (11.0)	29 (35.4)	44 (53.7)

BMD—bone mineral density, BMI—body mass index, BSE—breast self-examination, CA—cancer antigen, CBC—complete blood count, CEA—carcinoembryonic antigen, CT—computed tomography, DEXA—dual-energy x-ray absorptiometry, ESAS—Edmonton Symptom Assessment System, FDG-PET—fluorodeoxyglucose positron emission tomography, HPV—human papillomavirus, IUD—intrauterine device, MRI—magnetic resonance imaging, NCCN—National Comprehensive Cancer Network, PCV—pneumococcal conjugate vaccine, PPSV—pneumococcal polysaccharide vaccine, SNRI—serotonin-norepinephrine reuptake inhibitor, SSRI—selective serotonin reuptake inhibitor, TENS—transcutaneous electrical nerve stimulation, TIV—trivalent influenza vaccine.

Few studies specifically examine NP knowledge and practices of survivorship care; however, some have described gaps in NP knowledge of cancer risk assessment.[34-36]

Limitations

Limitations of this study include self-reported data and recruitment from a limited geographic area; thus, findings might not generalize to other regions. Findings could also be influenced by the types of PCPs who self-selected to participate. The sample overrepresented PHCNPs; however, comparative analyses revealed few differences between the 2 professions. As well, our sample of FPs did not differ significantly from the population of eligible FPs in terms of demographic characteristics. The overall response rate of 22.4% was low but in keeping with other clinician surveys.[37,38] Although some research suggests there is limited or no response bias in physician surveys,[39] low response rates increase the potential for bias,[40] which might actually mean that knowledge and practice gaps are even greater than reported.

Conclusion

Our results enhance understanding of the current knowledge and practices of PCPs related to implementation of evidence-based recommendations for posttreatment breast cancer survivorship care. We identified knowledge and practice gaps that could be targeted through educational or other multicomponent interventions addressing the challenges of providing survivorship care in primary care settings. Medical school, family medicine residency, and PHCNP training programs also need to address primary care–based survivorship care; primary care practices could include strategies such as care plans and reminders. Future research needs to determine how to best provide support and education to improve PCP knowledge and practices related to providing breast cancer survivorship care, and translate into enhanced long-term health and quality of life outcomes for breast cancer survivors.

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Contributors

All authors contributed to the concept and design of the study; data gathering, analysis, and interpretation; and preparing the manuscript for submission.

Competing interests

None declared

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