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Managing Health Care After Cancer Treatment: A Wellness Plan

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Abstract

Many patients and health care providers lack awareness of both the existence of, and treatments for, lingering distress and disability after treatment. A cancer survivorship wellness plan can help ensure that any referral needs for psychosocial and other restorative care after cancer treatment are identified.

As a consequence of continuing advances in the detection and treatment of cancer at all stages of the disease, there are now more than 13 million cancer survivors in the U.S.; 500,000 of them received health care services in the VHA.^{1,2} Given this shifting trajectory

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of survivorship, for many patients, cancer is better understood as a chronic illness. As such, ongoing care after cancer treatment has assumed greater significance.

This article describes the bio-psychosocial needs of cancer survivors and discusses the development of a VHA Computerized Patient Record System (CPRS) survivorship care plan (SCP) that includes a wellness plan to guide patient care. The description of cancer survivors relies on the literature as well as on the Veterans Cancer Rehabilitation Study (Vetcares) of 170 veterans diagnosed with oral and digestive cancers (ie, head and neck, gastric/esophageal, colorectal) who were interviewed at 6, 12, and 18 months after their diagnosis (described in detail elsewhere).³

PSYCHOSOCIAL DISTRESS AFTER CANCER

A cancer diagnosis is usually received suddenly and unexpectedly. Cancer continues to be the most commonly feared diagnosis; receiving the diagnosis can be traumatic. Treatments can be harsh and significantly disrupt daily life. After the physical rigors of treatment subside, depression and anxiety may emerge as the impact of diagnosis and treatment are processed.

Depression

After cancer treatment, approximately 1 in 4 individuals meets criteria for depression.^{4,5} Depression frequently results in significant additional disability in survivors. The risk for depressive symptoms is highest in the first year following treatment. Studies conflict about whether the risk for depression continues to be greater in long-term cancer survivors or is equal to that in the general population, but in the Vetcares sample, 18% continued to exceed a standard rating scale cutoff for major depression at 18 months postdiagnosis (Table 1).⁶⁻⁸

Anxiety

Many individuals report symptoms of cancer-related posttraumatic stress disorder (PTSD) in the first year following cancer treatment.⁹ Approximately 1 in 10 meets the criteria for PTSD, although longitudinal studies are lacking.¹⁰ In the Vetcares sample, 80% experienced at least 1 symptom of cancer-related PTSD, and 10% exceeded a standard rating scale cutoff for PTSD.¹¹ In a veteran population, concurrent combat PTSD may be associated with cancer PTSD; 36% of the Vetcares sample said cancer reminded them of combat, and 23% said dreams of combat became more frequent during cancer.¹² In addition to the intrusive symptoms of cancer-related stress, fears of recurrence are common.¹³ In the Vetcares study, veterans reported fear of recurrence, worries about family, health and health care, and existential concerns (eg, “Am I making the most of the time I have?”).¹⁴

Social Interference

Long-term adverse effects of cancer, when untreated, decrease the capacity for work and create social strain.¹⁵⁻¹⁷ This veteran sample reported that cancer interfered with marital and family relationships (45%), social and recreational activities (43%), work (46%), and finances (37%).¹⁸ Restrictions on socialization may be especially problematic, given that

social support is a critical predictor of coping ability during the process of cancer diagnosis and treatment.^{19,20}

FUNCTIONAL DISABILITY AFTER CANCER

Cancer treatment may involve removal of the breast, prostate, bladder, colon, esophagus, or other body part and, as a result, may be accompanied by changes in physical function. In addition, persistent toxicities of chemotherapy and radiation therapy across organ systems may lead to diffuse problems.

Neuropsychiatric Disability (Cognition, Insomnia, Fatigue)

Cognitive problems with speed of processing, short-term memory, spatial abilities, and word finding have been noted across cancer types, although the extent of impairment varies, depending on treatments.^{21,22} In the Vetcares population, an astounding 1 in 2 experienced impaired cognition (<26 adjusted Montreal Cognitive Assessment [MoCA] score),²³ while nearly 1 in 3 reported significant insomnia or fatigue via the Patient Reported Outcomes Measurement Information System (PROMIS) (Table 2).²⁴

Musculoskeletal Disability (Physical Function, Pain)

Physical impairments in strength, range of motion, and balance may be associated with generalized treatments like chemotherapy and with targeted treatments such as major surgical resections. Older cancer survivors may have more functional disability than do younger survivors; in the Vetcares sample, about 1 in 2 described problems with physical function (eg, difficulty doing chores, climbing stairs, walking, shopping).^{25,26} Pain is common during cancer treatment and may continue after treatment is completed; 1 in 3 in the Vetcares sample continued to report significant pain 18 months after diagnosis.^{27,28} Causes are multifactorial, such as chemotherapy-induced peripheral neuropathy or postsurgical syndromes.²⁹

Other Disabilities

In addition to neuropsychiatric and musculoskeletal impairments, a wide range of other functional limitations are found, depending on the cancer and its treatment. Sexual complaints, which should not be confused with lack of interest, are one of the most prevalent, long-term complications of cancer.³⁰ In the Vetcares sample, almost half (43%) the veterans stated that their sex lives were worse than they were before cancer, yet 73% said that their interest in sex was the same or stronger. In addition, disruption in gastroenterological function is common, with both weight loss and weight gain.³¹ Other functional challenges may include difficulties with speech, swallowing, and for patients who have them, difficulties with mechanical devices (eg, a feeding tube) and stoma care.^{17,32} Bladder and bowel functions may be affected as well.^{33–35}

HEALTH CARE AFTER CANCER

Oncology research has resulted in remarkable strides in the development of treatments that extend life. After cancer treatment, oncologists focus appropriately on ongoing surveillance for recurrence. However, many patients, and possibly some health care professionals, lack

awareness of both the existence of, and treatments for, lingering distress and disability after treatment.^{36,37}

For example, one Vetcares patient said he wished his physicians had prepared him for his symptoms after treatment. “[I wish the doctors would say]... ‘It may take a while, but you may recover...’ I was never talked to about how life would be afterwards—not just physical, but your life.” He expressed a wish for “...a phone call every few weeks to check in...I sort of navigated it myself.” The lack of awareness and preparation for the chronic care needs of cancer survivors may be a relic of the discontinuity between specialty oncology services and primary care delivery before and after acute cancer care.

With its integration of inpatient and outpatient services across primary and specialty care, VHA is a leading-edge provider of comprehensive cancer survivorship care. To ensure that VHA is meeting the chronic care needs of the veterans who are cancer survivors, assessment and treatment planning services, in addition to including traditional screening and surveillance programs, should also be aligned with survivors’ biopsychosocial needs.

The Survivorship Care Plan

The Institute of Medicine (IOM), recognizing the need for treatment of both psychosocial distress and functional disability after cancer treatment, released the report, *From Cancer Patient to Cancer Survivor: Lost in Transition*,³¹ in 2005, followed in 2008 by *Cancer Care for the Whole Patient: Meeting Psychosocial Health Needs*.³⁸ An SCP has been proposed to document patient and provider awareness of the need for postcancer treatment rehabilitation, broadly conceived, and to direct patients to appropriate referrals.²⁹

Ideally, an SCP provides (1) a summary of cancer treatment; (2) a plan for surveillance and preventive care; and (3) recommendations for rehabilitative care (although the latter are often missing). The SCP has been widely embraced by patient groups and by the American Society of Clinical Oncologists. The Commission on Cancer (CoC) of the American College of Surgeons proposed a new accreditation standard, to begin in 2015, which will require “a process to disseminate a comprehensive care summary and follow-up plan to patients with cancer who are completing cancer treatment.”³⁹ While the SCP is a promising tool, it may facilitate survivorship care best when it is patient centered—that is, when it is used to elicit and personalize the individual’s stated needs and goals for health care.^{40–42}

There are obstacles to implementing an SCP. The IOM recommends that the patient’s “managing physician” be the plan’s author, but that specialty cannot be uniformly established. Specific cancer diagnoses and treatment needs dictate which physicians are involved in comprehensive cancer and survivorship care, and increasingly, these roles are complex and poorly coordinated.⁴³ Thus, the provider responsible for creating the treatment summary or interviewing the patient will vary, and oversight of the implementation process will necessarily be fragmented. In addition, patients may deliberately avoid care; in the Vetcares sample, nearly half admitted to staying away from the medical center after treatment ceased because of being “tired of it all.” Others shunned post cancer treatment follow-up due to fears that tests might reveal bad news.

A VHA Template

A working group within the VHA special interest group on cancer survivorship developed a CPRS (Computerized Patient Record System) template for an SCP that is based on the IOM recommendations. The group translated these recommendations into the relevant clinical data elements using 3 components: (1) a treatment summary; (2) a surveillance plan; and (3) a wellness plan (Figure). For those working within the VA system, the template is available on the VA intranet for download into the local CPRS template package. Local sites can then adapt the template as desired.

The Wellness Plan Component

A key part of this SCP that distinguishes it from others is the wellness plan. Importantly, this component asks the patient to report, to his primary care physician or other provider, specific concerns that may warrant referrals for rehabilitative care. In this way, the VHA SCP elicits patient participation and perspective to a greater extent than those plans that focus more narrowly on summarizing treatment. The items on the wellness plan were chosen based on the frequency with which they were identified among the veterans in the study sample as well as on a consensus of the VHA working group's members.

Consumer feedback, as provided by 4 veterans who piloted the SCP, suggested that the plan should be completed approximately 3 months after cancer treatment. Because of variables in cancer treatment and in the organizational structure of VA facilities nationwide, flexibility in using and adapting these tools is inevitable and desirable. Since the majority of survivorship research focuses on women who are breast cancer survivors, while the data presented here are based on oral-digestive cancer survivors, additional work is needed to cross-validate the wellness plan content across cancer types as well as to determine effective methods for implementation that address both system and patient barriers to care.

CONCLUSION

Awareness of the need for cancer survivorship care is growing nationwide and within the VHA, and will become a required standard for CoC accreditation in 2015. With the VA's leadership in both electronic medical records and integrated care, we are well poised to set an example of meaningful, patient-centered survivorship care.

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References

1. National Cancer Institute, National Institutes of Health, U.S. Department of Health and Human Services. [Accessed May 15, 2012] Estimated US Cancer Prevalence Counts: Who Are Our Cancer Survivors in the US?. 2008. <http://www.cancercontrol.cancer.gov/ocs/prevalence/index.html>
2. Moye J, Schuster JL, Latini DM, Naik AD. The future of cancer survivorship care for veterans. *Fed Pract.* 2010; 27(3):36–43. [PubMed: 21318051]
3. Naik AD, Martin LA, Karel M, et al. Cancer survivor rehabilitation and recovery: protocol for the Veterans Cancer Rehabilitation Study (Vet-CaRes). *BMC Health Serv Res.* 2013; 13:93. [PubMed: 23497430]
4. Mehnert A, Koch U. Psychological comorbidity and health-related quality of life and its association with awareness, utilization, and need for psychosocial support in a cancer register-based sample of long-term breast cancer survivors. *J Psychosom Res.* 2008; 64(4):383–391. [PubMed: 18374737]
5. Moye, J.; Gosian, J.; Snow, R.; Naik, A. the Vet-CaRes Research Team. Emotional health following diagnosis and treatment of oral-digestive cancer in military veterans. Poster presented at: 119th Annual Meeting of the American Psychological Association; August 2011; Washington, DC.
6. Honda K, Goodwin RD. Cancer and mental disorders in a national community sample: findings from the National Comorbidity Survey. *Psychother Psychosom.* 2004; 73(4):235–242. [PubMed: 15184718]
7. Keating NL, Norredam M, Landrum MB, Huskamp HA, Meara E. Physical and mental health status of older long-term cancer survivors. *J Am Geriatr Soc.* 2005; 53(12):2145–2152. [PubMed: 16398900]
8. Kroenke K, Spitzer RL, Williams JB. The PHQ-9: validity of a brief depression severity measure. *J Gen Intern Med.* 2001; 16(9):606–613. [PubMed: 11556941]
9. Kangas M, Henry JL, Bryant RA. Posttraumatic stress disorder following cancer. A conceptual and empirical review. *Clin Psychol Rev.* 2002; 22(4):499–524. [PubMed: 12094509]
10. DuHamel KN, Ostrof J, Ashman T, et al. Construct validity of the posttraumatic stress disorder checklist in cancer survivors: analyses based on two samples. *Psychol Assess.* 2004; 16(3):255–266. [PubMed: 15456381]
11. Weathers, FW.; Litz, BT.; Herman, DS.; Huska, JA.; Keane, TM. The PTSD checklist (PCL): reliability, validity, and diagnostic utility. Paper presented at: 9th Annual Meeting of the International Society for Traumatic Stress Studies; October 1993; San Antonio, TX.
12. Hilgeman M, Moye J, Archambault E, et al. In the veteran's voice: psychosocial needs after cancer treatment. *Fed Pract.* 2012; 29(suppl 3):51S–59S. [PubMed: 25798043]
13. Deimling GT, Bowman KF, Sterns S, Wagner LJ, Kahana B. Cancer-related health worries and psychological distress among older adult, long-term cancer survivors. *Psychooncology.* 2006; 15(4):306–320. [PubMed: 16041841]
14. Moye J, Wachen JS, Mulligan EA, Doherty K, Naik AD. Assessing multidimensional worry in cancer survivors. *Psychooncology.* 2014; 23(2):237–240. [PubMed: 24105759]
15. Deimling GT, Wagner LJ, Bowman KF, Sterns S, Kercher K, Kahana B. Coping among older-adult, long-term cancer survivors. *Psychooncology.* 2006; 15(2):143–159. [PubMed: 15880638]
16. Short PF, Vasey JJ, Belue R. Work disability associated with cancer survivorship and other chronic conditions. *Psychooncology.* 2008; 17(1):91–97. [PubMed: 17429835]
17. Lee MK, Lee KM, Bae JM, et al. Employment status and work-related difficulties in stomach cancer survivors compared with the general population. *Br J Cancer.* 2008; 98(4):708–715. [PubMed: 18283298]
18. Mulligan, E.; Schwartzenburg, M.; Naik, A., et al. Social relationships among military Veterans with oral-digestive cancers: risk and protective factors. Poster presented at: 120th Annual Meeting of the American Psychological Association; August 2012; Orlando, FL.
19. Penedo FJ, Traeger L, Benedict C, et al. Perceived social support as a predictor of disease-specific quality of life in head-and-neck cancer patients. *J Support Oncol.* 2012; 10(3):119–123. [PubMed: 22088826]

20. Sultan S, Fisher DA, Voils CI, Kinney AY, Sandler RS, Provenzale D. Impact of functional support on health-related quality of life in patients with colorectal cancer. *Cancer*. 2004; 101(12): 2737–2743. [PubMed: 15536617]
21. Anderson-Hanley C, Sherman ML, Riggs R, Agocha VB, Compas BE. Neuropsychological effects of treatments for adults with cancer: a meta-analysis and review of the literature. *J Int Neuropsychol Soc*. 2003; 9(7):967–982. [PubMed: 14738279]
22. Boykoff N, Moieni M, Subramanian SK. Confronting chemobrain: an in-depth look at survivors' reports of impact on work, social networks, and health care response. *J Cancer Surviv*. 2009; 3(4): 223–232. [PubMed: 19760150]
23. Nasreddine ZS, Phillips NA, Bédirian V, et al. The Montreal Cognitive Assessment, MoCA: a brief screening tool for mild cognitive impairment. *J Am Geriatr Soc*. 2005; 53(4):695–699. [PubMed: 15817019]
24. National Institutes of Health. [Accessed December 24, 2013] Patient Reported Outcomes Measurement Information System (PRO-MIS) Web site. www.nihpromis.org
25. Zebrack BJ, Yi J, Petersen L, Ganz PA. The impact of cancer and quality of life for long-term survivors. *Psychooncology*. 2008; 17(9):891–900. [PubMed: 18050153]
26. Herman, L.; Gosian, J.; Walder, A.; Schwartzenburg, M.; Moye, J.; Naik, A. The physical and psychological burden of oral-digestive cancer on veteran cancer survivors. Poster presented at: 8th Annual Meeting of the Association of VA Hematology/Oncology; October 19–21, 2012; Omaha, NE.
27. Deimling GT, Sterns S, Bowman KF, Kahana B. The health of older-adult, long-term cancer survivors. *Cancer Nurs*. 2005; 28(6):415–424. [PubMed: 16330962]
28. Moye J, June A, Martin LA, Gosian J, Herman L, Naik AD. Pain is prevalent and persisting in cancer survivors: Differential factors across age groups. *J Geriatr Oncol*. 2014; 5(2):190–196. [PubMed: 24495701]
29. Mehta P, Haggstrom DA, Latini DM, Ballard EA, Moye J. Cancer survivorship care: summarizing the six tools for success. *Fed Pract*. 2011; 28(suppl 6):43–48.
30. Ananth H, Jones L, King M, Tookman A. The impact of cancer on sexual function: a controlled study. *Palliat Med*. 2003; 17(2):202–205. [PubMed: 12701852]
31. Hewitt, M.; Greenfield, S.; Stovall, E., editors. Committee on Cancer Survivorship. Institute of Medicine. From Cancer Patient to Cancer Survivor: Lost in Transition. Washington, DC: The National Academies Press; 2005.
32. Hammerlid E, Taft C. Health-related quality of life in long-term head and neck cancer survivors: a comparison with general population norms. *Br J Cancer*. 2001; 84(2):149–156. [PubMed: 11161369]
33. Bacon CG, Giovannucci E, Testa M, Glass TA, Kawachi I. The association of treatment-related symptoms with quality-of-life outcomes for localized prostate carcinoma patients. *Cancer*. 2002; 94(3):862–871. [PubMed: 11857323]
34. Ramsey SD, Berry K, Moinpour C, Giedzinska A, Andersen MR. Quality of life in long term survivors of colorectal cancer. *Am J Gastroenterol*. 2002; 97(5):1228–1234. [PubMed: 12017152]
35. Snyder CF, Earle CC, Herbert RJ, Neville BA, Blackford AL, Frick KD. Trends in follow-up and preventive care for colorectal cancer survivors. *J Gen Intern Med*. 2008; 23(3):254–259. [PubMed: 18197456]
36. Clark, EJ.; Stovall, EL.; Leigh, S.; Siu, AL.; Austin, DK.; Rowland, JH. Access, Advocacy, Action, and Accountability. Silver Spring, MD: National Coalition for Cancer Survivorship; 1996. National Coalition for Cancer Survivorship. Imperatives for Quality Cancer Care.
37. Knobf MT, Ferrucci LM, Cartmel B, et al. Needs assessment of cancer survivors in Connecticut. *J Cancer Surviv*. 2012; 6(1):1–10. [PubMed: 21984194]
38. Adler, NE.; Page, AEK., editors. Committee on Psychosocial Services to Cancer Patients/Families in a Community Setting, Institute of Medicine. Cancer Care for the Whole Patient: Meeting Psychosocial Health Needs. Washington, DC: The National Academies Press; 2008.
39. American College of Surgeons. [Accessed December 24, 2013] Commission on Cancer. Cancer Program Standards. 2012. <http://www.facs.org/cancer/coc/programstandards2012.html>

40. Smith TJ, Snyder C. Is it time for (survivorship care) plan B? *J Clin Oncol*. 2011; 29(36):4740–4742. [PubMed: 22042961]
41. Campbell MK, Tessaro I, Gellin M, et al. Adult cancer survivorship care: experiences from the LIVESTRONG centers of excellence network. *J Cancer Surviv*. 2011; 5(3):271–282. [PubMed: 21553353]
42. Gage EA, Pailler M, Zevon MA, et al. Structuring survivorship care: discipline-specific clinician perspectives. *J Cancer Surviv*. 2011; 5(3):217–225. [PubMed: 21311997]
43. Naik AD, Singh H. Electronic health records to coordinate decision making for complex patients: what can we learn from wiki? *Med Decis Making*. 2010; 30(6):722–731. [PubMed: 21183759]

Fast Facts...

- There are now more than 13 million cancer survivors in the U.S.; 500,000 in the VHA^{1,2}
- Psychosocial distress and functional disability are common after cancer treatment. These problems often go untreated, increasing risk for ongoing disability
- The survivorship care plan (SCP) is a mechanism to improve transition care by providing information, education, and referral, but traditional approaches have lacked the patient's perspective
- A wellness plan template has been developed to augment survivorship care planning in the VHA


 Wellness Plan After Cancer Treatment For: _____ You have had treatment for cancer. Don't neglect the rest of you! It is normal to need some time and some help to recover. Please let us know how we can help you. Do you have concerns about ...	Do you have this concern?		
	YES	SOME OR MAYBE	NO
Feeling down, depressed, or hopeless; little interest or pleasure in doing things			
Repeated disturbing memories, thoughts, or images of cancer			
Feeling really worried – such as cancer coming back, dying			
Problems with partner, family, or friends; feeling distant from others			
Practical things: work, finances, housing, transportation			
Memory or thinking			
Problem with sleep			
Feeling fatigued			
Physical problems – such as strength, stretch, movement, or balance			
Pain			
Sexual health			
Bowel or bladder problems – such as diarrhea or incontinence			
Eating, swallowing, talking			
Weight or nutrition			
A feeding tube, stoma, teeth, or other "equipment" you have or need			
Anything else?			
PLEASE LET YOUR DOCTOR KNOW ABOUT YOUR CONCERNS AT YOUR NEXT VISIT.			

Figure. VHA Wellness Plan Template

Source: https://vaww.vision11.portal.va.gov/sites/VERC/va-case/collabs/survivor_toolkit/SitePages/Home.aspx (Note: this is an internal VA website accessible to VA personnel only.)

Table 1
 Psychosocial Distress Reported By a Sample of Veterans After Cancer Treatment

Domain	% Distressed		Scale mean(standard deviation)			F
	6 mo	18 mo	6 mo	12 mo	18 mo	
Depression	27	18	6.8 (7.0)	5.6 (6.0)	5.2 (5.8)	8.77 ^a
Posttraumatic stress disorder	12	9	30.2 (14.2)	28.0 (12.7)	27.7 (13.4)	18.99 ^a
Worry	25	17	27.0 (23.4)	25.0 (22.8)	21.0 (21.4)	10.98 ^a

Table 2
 Functional Disability Reported By a Sample of Veterans After Cancer Treatment

Function	% Impaired		Scale mean (standard deviation)				F
	6 mo ^b	18 mo	6 mo	12 mo	18 mo		
Insomnia	25	10	10.7 (4.8)	9.7 (4.6)	9.5 (4.3)	7.26 ^a	
Fatigue	28	13	10.3 (4.9)	9.5 (4.3)	9.3 (4.6)	9.95 ^a	
Mobility ^c	45	28	15.3 (4.7)	15.7 (4.5)	16.2 (4.7)	9.66 ^a	
Pain	31	30	8.6 (5.5)	8.49 (5.1)	8.7 (5.4)	21.39 ^a	

^a $P < .01$.

^b For Patient Reported Outcomes Measurement Information System (PROMIS) subscales, “impairment” is defined as scoring at the 16th percentile or less.

^c Reverse-scored (higher is better).