

# Recommendations for the Implementation of Distress Screening Programs in Cancer Centers

Report From the American Psychosocial Oncology Society (APOS), Association of Oncology Social Work (AOSW), and Oncology Nursing Society (ONS) Joint Task Force

William F. Pirl, MD, MPH<sup>1</sup>; Jesse R. Fann, MD, MPH<sup>2</sup>; Joseph A. Greer, PhD<sup>1</sup>; Ilana Braun, MD<sup>3</sup>; Teresa Deshields, PhD<sup>4</sup>; Caryl Fulcher, MSN<sup>5</sup>; Elizabeth Harvey, PhD, MPH<sup>6</sup>; Jimmie Holland, MD<sup>7</sup>; Vicki Kennedy, LCSW<sup>8</sup>; Mark Lazenby, PhD<sup>9</sup>; Lynne Wagner, PhD<sup>10</sup>; Meghan Underhill, PhD<sup>11</sup>; Deborah K. Walker, DNP<sup>12</sup>; James Zabora, DSW<sup>13</sup>; Bradley Zebrack, PhD<sup>14</sup>; and Wayne A. Bardwell, PhD, MBA<sup>15</sup>

In 2015, the American College of Surgeons (ACoS) Commission on Cancer will require cancer centers to implement screening programs for psychosocial distress as a new criterion for accreditation. A joint task force from the American Psychosocial Oncology Society, the Association of Oncology Social Work, and the Oncology Nursing Society developed consensus-based recommendations to guide the implementation of this requirement. In this review, the authors provide recommendations regarding each of the 6 components necessary to meet the ACoS standard: 1) inclusion of psychosocial representation on the cancer committee, 2) timing of screening, 3) method/mode of screening, 4) tools for screening, 5) assessment and referral, and 6) documentation. *Cancer* 2014;120:2946-54. © 2014 American Cancer Society.

**KEYWORDS:** psychosocial aspects, neoplasms, screening, standards, recommendations, distress screening, implementation, cancer, psychosocial, programs.

## INTRODUCTION

In 2015, the American College of Surgeons (ACoS) Commission on Cancer will require cancer centers to implement screening programs for psychosocial distress as a criterion for accreditation.<sup>1</sup> Although the ACoS standard articulates the required processes, cancer centers may benefit from guidance regarding the interpretation and customization of these requirements. This review, which was written by a joint task force from the American Psychosocial Oncology Society (APOS), the Association of Oncology Social Work (AOSW), and the Oncology Nursing Society (ONS), attempts to provide such guidance. The APOS, AOSW, and ONS represent over 36,000 oncology social workers, psychologists, nurses, chaplains, psychiatrists, and other physicians who provide psychosocial care to patients with cancer in the United States. The joint task force specifically developed consensus-based recommendations regarding the 6 components of the ACoS standard: 1) psychosocial representation on the cancer committee with a committee meeting that includes plans for screening, 2) timing of screening, 3) method/mode of screening, 4) tools for screening, 5) assessment and referral, and 6) documentation.

### *Screening for Psychosocial Distress*

The National Comprehensive Cancer Network (NCCN) defines distress as an emotionally unpleasant psychological (cognitive, behavioral, emotional), social, and/or spiritual experience that might interfere with a patient's ability to effectively

**Corresponding author:** William F. Pirl, MD, MPH, Harvard Medical School, Yawkey 10B, 55 Fruit Street, Boston, MA 02114; Fax: (617) 724-1079; wpirl@partners.org

<sup>1</sup>Center for Psychiatric Oncology and Behavioral Sciences at Massachusetts General Hospital, Harvard Medical School, Boston, Massachusetts; <sup>2</sup>Biobehavioral Sciences, Fred Hutchinson Cancer Research Center, University of Washington, Seattle, Washington; <sup>3</sup>Department of Palliative Care and Psychosocial Oncology, Dana-Farber Cancer Institute, Harvard Medical School, Boston, Massachusetts; <sup>4</sup>Department of Psychology, Washington University School of Medicine, St. Louis, Missouri; <sup>5</sup>Department of Advanced Clinical Practice, Duke University Health System, Durham, North Carolina; <sup>6</sup>International Consulting Oncology, LLC, New York, New York; <sup>7</sup>Department of Psychiatry and Behavioral Sciences, Memorial Sloan-Kettering Cancer Center, New York, New York; <sup>8</sup>Cancer Support Community, Washington, District of Columbia; <sup>9</sup>Division of Acute Care/Health Systems, Yale University School of Nursing, Orange, Connecticut; <sup>10</sup>Department of Medical Social Sciences, Northwestern University, Chicago, Illinois; <sup>11</sup>Phyllis F. Cantor Center for Research in Nursing and Patient Care Services, Dana-Farber Cancer Institute, Boston, Massachusetts; <sup>12</sup>University of Alabama Birmingham School of Nursing, Birmingham, Alabama; <sup>13</sup>Life with Cancer, Fairfax, Virginia; <sup>14</sup>University of Michigan School of Social Work, Ann Arbor, Michigan; <sup>15</sup>Department of Psychiatry, University of California-San Diego, San Diego, California

**DOI:** 10.1002/cncr.28750, **Received:** February 10, 2014; **Accepted:** February 21, 2014, **Published online** May 2, 2014 in Wiley Online Library (wileyonlinelibrary.com)

cope with cancer, its physical symptoms, and its treatment.<sup>2</sup> Psychosocial distress, a common yet treatable condition in individuals with cancer, is associated with suffering and worse outcomes.<sup>3-11</sup> Data suggest that screening for and addressing distress not only enhances quality of life but also may be associated with improved cancer outcomes.<sup>12-14</sup> Unfortunately, distress often goes unrecognized in oncology care, necessitating systematic methods for its identification and treatment.<sup>15,16</sup> Furthermore, psychosocial interventions can effectively reduce distress created or exacerbated by cancer.<sup>17-22</sup>

In addition to the ACoS Commission on Cancer standard, several other organizations, including the NCCN, the Institute of Medicine, and the American Society of Clinical Oncology, have identified the assessment and treatment of psychosocial distress in routine cancer care as a quality care standard.<sup>2,23,24</sup> The NCCN has developed the Distress Management Clinical Practice Guidelines, which outline the steps for evaluating and addressing distress in the cancer setting. The initial steps involve routine screening for psychosocial distress and the development of a system of evaluation and triage for those who screen positive, referral to appropriate care if indicated, and follow-up to ensure adequate care. These elements have been referred to as a comprehensive distress screening process.<sup>25</sup>

### **Comprehensive Distress Screening Programs**

Effective detection and treatment of distress in cancer settings require a comprehensive distress screening program. Such an approach involves not only the use of an appropriate distress screening instrument but also a system for administering screening, reviewing screening results, conducting follow-up assessments for patients identified as distressed, and referring for further evaluation, support, and treatment as needed. Moreover, the integration of a distress screening program should be approached as routine in high-quality cancer care, reducing the stigma often associated with mental health services.

The success of any comprehensive distress screening program will depend on having sufficient and qualified staff responsible for each component. The cancer care team will require training in procedures for distress screening and evaluation. Also, a network of psychosocial health care providers must be identified to care for patients who screen positive for distress and need further evaluation, support, and treatment. Evidence suggests that screening alone, in the absence of an established triage algorithm, does not improve outcomes.<sup>26</sup> This network may include in-house mental health clinicians, especially at larger cancer care facilities; community-based clinicians; and agencies that

can provide services. The network must also include an interdisciplinary team of health care providers, such as physicians, social workers, and nurses, to help address the multifactorial causes of distress outside of mental health. In addition, the delivery of psychosocial services by telephone may be a cost-efficient adjunct for overcoming patient-level and system-level barriers in accessing care.<sup>27-29</sup>

No single distress screening program will address the specific needs of every cancer center or oncology practice given variability in volume, resources, and culture. In the section below, we identify considerations and provide recommendations regarding each of the 6 components of ACoS standard 3.2, which will assist cancer centers in designing their own comprehensive screening programs.

### **Six Components in the ACoS Standard**

Thoughtful approaches to each of the 6 required components will facilitate implementation of an effective, efficient, clinically meaningful, safe, equitable, and sustainable screening program. We believe that the recommendations below will assist cancer centers in achieving this goal, regardless of their setting, size, or resources.

#### **1. Cancer committee meeting**

The ACoS standard 3.2 requires documentation of discussion about screening for distress in the minutes of a leadership committee meeting and that a psychosocial representative (an “oncology social worker, clinical psychologist, or other mental health professional trained in the psychosocial aspects of cancer”) is identified to oversee the administration of the program and report annually on the program’s fidelity. The representative should be familiar with rates and presentations of distress in cancer populations; basic clinical evaluation of distress; and the existing resources available to the center for relevant evaluations, treatment, and referrals. If no current staff member possesses this knowledge, then the center should hire a mental health professional with such expertise or provide additional training for an appropriate psychosocial representative before designing a screening program. Several sources are available to obtain this training, including a free online program offered by APOS (available at: [www.apos-society.org](http://www.apos-society.org)), a course offered by the ONS entitled *Integrating Psychosocial Care in Oncology Practice* (available at: [http://www2.ons.org/CourseDetail.aspx?course\\_id=87](http://www2.ons.org/CourseDetail.aspx?course_id=87)), and the AOSW ([www.aosw.org](http://www.aosw.org)) (all Web sites accessed April 22, 2014).

We recommend that the following information be available to the cancer committee to guide the discussions on screening: ACoS standard 3.2; volume of patients at

the center (number of new patients per month, number of daily ambulatory visits, etc); availability of mental health clinicians within and outside the center; and the NCCN guidelines for distress management. Given critical roles for nursing and social work staff in the implementation of distress screening at many centers, nursing and social work leadership should be involved in a collaborative effort.

We recommend that committee discussions begin with the fifth component, evaluation and referral of distressed patients, which may require the most planning, followed by the selection of a screening method. Committee discussions regarding the screening program should address the development of clear procedures for screening administration, scoring of responses, identification of clinical thresholds, and implementation of an action plan when patients exceed the clinical thresholds. Patient and family advisory groups may be useful in providing feedback to committee members regarding acceptability of the distress screening program for specific patient populations. Moreover, the distress screening program should be integrated into the cancer center's quality-assurance and safety committees.

## 2. Timing of screening

The ACoS Committee on Cancer accreditation standard requires that patients be screened at least once, at a "pivotal medical visit." The timing of screening should occur at clinical visits when patients are at greatest risk for distress (eg, at diagnosis, transitions in cancer treatment, and completion of treatment).

The *NCCN Guidelines for Distress Management* (version 1.2013) also advise screening patients for distress at their initial visit and at appropriate intervals thereafter as clinically indicated, including at times of change in disease status (such as remission, recurrence, and progression).<sup>2</sup> These guidelines identify additional times of vulnerability for distress, such as when patients undergo a diagnostic workup, learn about a cancer diagnosis, terminate treatment, etc (see Table 1).

Although no consensus on the exact timing of screening for distress exists,<sup>30</sup> the few examples from the available research literature favor screening patients at every visit.<sup>31,32</sup> One article recommended screening at every visit in medical oncology and weekly in radiation oncology.<sup>33</sup> In practice, however, most screening for psychosocial distress occurs at entry into cancer care, which is typically at the time of diagnosis.<sup>34</sup> Other common time points for screening include the start of a new treatment modality, completion of treatment, or referral to palliative care.<sup>35</sup>

**TABLE 1.** Periods of Increased Vulnerability for Distress Among Patients With Cancer<sup>a</sup>

Period
Finding a suspicious symptom
During diagnostic workup
Finding out the diagnosis
Awaiting treatment
Change in treatment modality
End of treatment
Discharge from hospital following treatment
Transition to survivorship
Medical follow-up and surveillance
Treatment failure
Recurrence/progression
Advanced cancer
End of life

<sup>a</sup>See National Comprehensive Cancer Network 2013.<sup>2</sup>

To ensure universal assessment of patients, 1 approach would be to begin screening within a specific time period after diagnosis. For example, screening for distress by the second oncology visit would be consistent with the ASCO Quality Oncology Practice Initiative measure.<sup>24</sup> Delaying screening until after the initial visit may limit the detection of temporary and transient anticipatory distress related to diagnosis and facilitate more efficient allocation of health care resources. Distress can occur at various time points from a cancer diagnosis onward and may go unrecognized if screening is conducted only once.

## 3. Method/mode of screening

Multiple approaches are available to screen for distress using either clinician-administered or patient-administered assessments. Some screening assessments can be completed with both methods.

One benefit of clinician-administered screening is that it can be integrated into a review of systems evaluated at every visit, permitting immediate scoring and interpretation. Clinical intervention and triage can then occur in real time, which is particularly important when assessing acute risk (eg, suicidal ideation). Clinicians can immediately gauge whether a patient accurately comprehends a screening item and, if necessary, clarify responses. However, clinician-administered screening is time-intensive, and some patients may be more frank using self-administered forms.<sup>36</sup> Also, nonmental health professionals may have limited training in how to ask and respond to questions regarding psychosocial distress.

Alternatively, patient-administered screening can consist of paper-and-pencil or electronic questionnaires with automatic scoring. Patients can complete such questionnaires in the clinic waiting room, during

chemotherapy infusion, or before medical visits. This method affords greater privacy than face-to-face assessment, facilitating disclosure of distress and other sensitive concerns. However, the approach requires scoring of patient responses and clinician review, which must occur immediately to address any responses indicating severe distress or risk concerns (eg, suicidal ideation). Finally, the validity of patient-administered questionnaires may be compromised by factors such as visual impairments, low literacy or language barriers, difficulty comprehending certain items, and family members completing questionnaires on behalf of the patient.

Electronic administration of distress screening, which can provide immediate scoring, has become increasingly available and affordable. Some electronic systems may facilitate immediate triage, providing patients with referral information and educational materials.<sup>37-39</sup> Assessment tools that integrate with the electronic health record can populate the medical record with patient-reported data while also tracking distress over time. This approach requires the availability of portable electronic devices, computer kiosks in clinic, or remote internet access for patients.

If patients are able to complete questionnaires remotely by mail or online, processes should be in place to attend to their responses quickly, particularly if they indicate that they are in severe distress or in danger of self-harm. To limit liability, a conservative approach would be to refrain from asking questions about potential for self-harm or other-harm unless the questionnaire is administered in the clinic. However, this approach may severely limit the utility of the screening measure and limit the information obtained.

#### 4. Screening tools

Oncology clinicians often fail to recognize patient distress in clinical encounters,<sup>40</sup> underscoring the need for standardized screening methods. Ideally, each patient would meet with a clinician for a comprehensive psychosocial assessment at key time points during routine cancer care. However, because this approach is not practical in most settings, cancer centers should screen patients using brief, well validated screening tools.

Because distress has multiple dimensions, tools that assess only 1 aspect, such as depression or anxiety, are not sufficient. In addition, distress can occur in relation to other symptoms or quality-of-life issues, such as physical symptoms (ie, nausea or fatigue) or social concerns (ie, financial burden or family changes), and multidimensional screening may be indicated to understand the distress.

Various tools exist to screen for distress. These have been reviewed in detail elsewhere.<sup>34,41-43</sup> These tools vary

in length, comprehensiveness, cultural equivalence, and sensitivity/specificity for identifying patients who need further evaluation. Although not exhaustive, Table 2 includes some examples of instruments that have been validated with meaningful threshold values and applicability to individuals with cancer. We recommend selecting an instrument that has been psychometrically validated, preferably in patients with cancer. Consideration should be given to the availability of the instrument in other languages and its performance across diverse cultures and ethnic groups. Research is ongoing to develop and test an expanding array of screening options.

Documentation of a provider's judgment that a patient is "coping adequately" does not fulfill the ACoS requirements if a standardized method for screening was not used. Moreover, we assert that more than 1 domain of distress must be assessed to meet the requirement. Examples of minimally acceptable instruments are the Distress Thermometer and the Patient Health Questionnaire-4 (PHQ-4).

Care providers should select a tool with consideration of patient burden, completion time, and ease of scoring. Deleting items from well established tools to make them briefer is unacceptable unless a validated shorter version exists. The sensitivity and specificity of instruments may inform an institution's selection of a screening tool, especially when considering available resources for follow-up care should a patient screen positive for distress. However, we recommend that the results of validated screening instruments should be interpreted using the published threshold values rather than modifying the cutoff scores to limit the volume of indicated follow-up assessments or mental health referrals.

#### 5. Evaluation and referral

Because the goal of screening for psychosocial distress is to identify patients who need further assessment, support, and intervention, centers should implement screening only after developing a plan for reviewing results and managing patients whose scores suggest clinically significant distress. Research indicates that screening for distress improves patient outcomes only when linked to an effective system of treatment.<sup>56,57</sup> Therefore, a process for evaluation and appropriate referral is the central component of a screening program.

We recommend developing a standardized protocol for scoring and reviewing the results of screening: identifying patients who require a follow-up assessment, conducting follow-up assessments, and referring for further evaluation if indicated. These steps should be carried out in a timely manner to address significant distress and

**TABLE 2.** Distress Screening Instruments

Instrument	Psychometric Properties Sources	Items	Domains Assessed	Recall Period	Score Range	Recommended Cutoff Score	Time to Administer, min	Overall Judgment as Screener <sup>a</sup>	Ability to Identify Treatment Effects <sup>b</sup>	Comments
Distress Thermometer (DT)	Jacobson 2005 <sup>4</sup> ; Mitchell 2007 <sup>44</sup>	1	Distress	Past wk	0-10	≥4 (≥5 for special population; eg palliative samples)	<1	Fair	Fair	Usually administered with complementary problem list covering practical, family, emotional, physical, and spiritual domains; modifications/extensions available, including Impact, Mood, and Need for Help
Patient Health Questionnaire-4 (PHQ-4)	Thekkumpurath 2011 <sup>45</sup> ; Ryan 2012 <sup>46</sup> ; Fann 2009 <sup>47</sup>	4	Depression, Anxiety	Past 2 wk	0-12 (0-6 for each subscale)	Depression subscale, ≥3; Anxiety subscale, ≥3	<1	Excellent (for combination depression questions)	Needs further testing	Thermometers Total score indicator of general distress and overall symptom burden (mild, 3-5; moderate, 6-8; severe, 9-12); further validation of the PHQ-4 in cancer samples warranted
General Health Questionnaire (GHQ-12)	Reuter 2001 <sup>48</sup> ; Goldberg & Williams 1988 <sup>49</sup>	12	Current mental health	Past few wk	0-36	≥5	5	Good	Poor	Focuses on 2 major areas: the inability to carry out normal functions and the appearance of new and distressing experiences; based on original 60-item version

TABLE 2. Continued

Instrument	Psychometric Properties Sources	Items	Domains Assessed	Recall Period	Score Range	Recommended Cutoff Score	Time to Administer, min	Overall Judgment as Screener <sup>a</sup>	Ability to Identify Treatment Effects <sup>b</sup>	Comments
Psychological Distress Inventory (PDI)	Morasso 2001 <sup>50</sup> ; Morasso 1996 <sup>51</sup>	13	General emotional condition and psychological disorders related to illness adjustment	Past wk	13-65	29	Unknown	Good	Unknown	Tested in Italian populations
Hospital Anxiety and Depression Scale (HADS)	Mitchell 2010 <sup>52</sup> ; Zigmond & Snaith 1983 <sup>53</sup>	14	Depression, Anxiety	Past 7 d	Total scale, 0-42; each subscale, 0-21 for each subscale	HADS-Total, $\geq 14$ ; HADS-Depression, $\geq 11$ ; HADS-Anxiety, $\geq 11$	2-5	Good	Good	Large no. of validation studies with wide range of cutoff scores used; often used as criterion measure; total score used as indicator of general distress, psychometrically superior in nonpsychiatric samples
Brief Symptom Inventory-18 (BSI-18)	Thekkumpurath 2009 <sup>54</sup> ; Recklitis & Rodriguez 2007 <sup>55</sup> ; Zabora 2001 <sup>11</sup>	18	Global Severity Index (GSI); subscales: Depression, Anxiety, Somatization	Past 7 d	0-72	GSI: Men, $\geq 10$ ; women $\geq 13$ ; total BSI cutoff score, $\geq 63$ ; total BSI score for cancer survivors, $\geq 50$	4	Good	Fair	Based on Symptom Checklist-90-Revised (SCL-90-R) and BSI-53, which have additional domains

<sup>a</sup> This assessment was based on reliability, type of criterion measure, and validity (see Vodermaier 2009<sup>42</sup>).

<sup>b</sup> This was determined according to the proven ability of the instrument to identify treatment effects in randomized controlled trials of psychosocial interventions among English-speaking cancer populations (Luckett 2010<sup>43</sup>).

safety concerns. The protocol should contain the following personnel roles: 1) a staff member responsible for overseeing the administration of the screening tool, collecting the screening results, and ensuring that a qualified clinician reviews the data; 2) a clinician or team of clinicians (nurse, social worker, psychologist, or physician) responsible for reviewing the screening data, determining which patients require a follow-up assessment based on the established criteria of the screening instrument, and ensuring those patients receive follow-up assessment; and 3) a clinician or team of clinicians (nurse, social worker, psychologist, or physician) responsible for the subsequent follow-up assessment of distressed patients.

Examples of protocols are these: A medical assistant could oversee the collection of screening data, which a nurse then reviews. The nurse identifies patients who meet criteria for a follow-up assessment and notifies a social worker who could conduct the follow-up assessment and determine whether further evaluation or referral is necessary. Alternatively, an oncologist could be responsible for all of the above elements—administering a screening instrument, reviewing the results, and then referring the patient for further evaluation or to appropriate services as needed. Some electronic screening packages automate the referral function, streamlining the process for a busy setting.

The goal of follow-up assessment for patients who meet the established criteria for distress is to clarify the nature of the distress and determine whether further action is needed. A follow-up assessment should include reviewing the results of the screening instrument, obtaining a brief history, and possibly administering additional assessment instruments to clarify the type, severity, and sources of distress. Any preliminary diagnoses or clarifications should be documented in the patient's medical record. In addition, we recommend that the clinician ask about suicidal ideation, given the increased risk of suicide in individuals with cancer.<sup>58</sup> If nonmental health clinicians identify suicidal ideation, then we recommend an immediate mental health evaluation to assess risk and determine the appropriate level of care.

When a potential psychosocial problem is identified, a referral for further focused evaluation and treatment is usually warranted. In these patients, the NCCN guidelines regarding distress management should be followed. Also, nonclinicians, such as patient navigators or finance staff, are often equipped to address barriers to care, such as transportation problems or need for financial assistance.

The specific strategies that each cancer center employs to ensure adequate treatment for distressed patients will vary according to the center's specific patient

population and available resources. However, we recommend an integrated care system that provides population-based, patient-centered psychosocial care that tracks outcomes and overcomes organizational challenges to care. For example, the evidence-based principles of stepped collaborative care represent such a system.<sup>59</sup>

## 6. Documentation

The clinician should document in the medical record the instrument used, results, and clinical interpretation of screening. Electronic importing of computerized screens, scanning of completed pen-and-paper instruments, and recording a patient's score within a clinical note are acceptable methods. For patients in whom distress is identified, a clinician should document the following at the appropriate time points: the review of screening results; plan for follow-up assessment; type, source, and severity of the distress; relevant history; any suicidal ideation; and types of recommended interventions, including a plan for further evaluation and by whom, or that no further evaluation or treatment is needed.

If a patient declines any of the aforementioned steps, then the clinician should document the patient refusal with the stated reasons. A patient may not have the right to refuse further evaluation if a safety risk is identified, and timely documentation is of vital clinical and medical-legal importance in such patients.<sup>60</sup>

## Conclusions

The implementation of programs to screen for psychosocial distress will enhance the quality of cancer care in institutions that comply with the ACoS standard for psychosocial distress screening. If cancer centers develop programs strategically and systematically, then screening can be implemented in a cost-efficient and sustainable way. Our hope is that oncology care institutions will seize this opportunity to provide personalized psychosocial care that could lead to decreased suffering, enhanced satisfaction with care, and, ultimately, improved health outcomes.

## FUNDING SUPPORT

No specific funding was disclosed.

## CONFLICT OF INTEREST DISCLOSURES

Dr. Deshields reports Speakers' Bureau fees from Lilly Oncology.

## REFERENCES

1. American College of Surgeons Committee on Cancer. Cancer Program Standards 2012 Version 1.1: Ensuring Patient-Centered Care. Chicago, IL: American College of Surgeons; 2012.
2. National Comprehensive Cancer Network (NCCN). NCCN Clinical Practice Guidelines in Oncology: Distress Management. Version

3. 2013. Fort Washington, PA: National Comprehensive Cancer Network; 2013. Available at: <https://www.nccn.org/>. Accessed December 17, 2013.
3. Hoffman B, Zevon M, D'Arrigo M, Cecchini T. Screening for distress in cancer patients: the NCCN rapid-screening measure. *Psychooncology*. 2004;13:792-799.
  4. Jacobsen PB, Donovan KA, Trask PC, et al. Screening for psychological distress in ambulatory cancer patients. *Cancer*. 2005;103:1494-1502.
  5. Trask PC, Paterson A, Riba M, et al. Assessment of psychological distress in prospective bone marrow transplant patients. *Bone Marrow Transplant*. 2002;29:917-925.
  6. Kennard BD, Stewart SM, Olvera R, et al. Nonadherence in adolescent oncology patients: preliminary data on psychological risk factors and relationships to outcome. *J Clin Psychol Med Settings*. 2004;11:31-39.
  7. Von Essen L, Larsson G, Oberg K, Sjoden PO. "Satisfaction with care": associations with health-related quality of life and psychosocial function among Swedish patients with endocrine gastrointestinal tumours. *Eur J Cancer Care (Engl)*. 2002;11:91-99.
  8. Skarstein J, Aass N, Fossa SD, Skovlund E, Dahl AA. Anxiety and depression in cancer patients: relation between the Hospital Anxiety and Depression Scale and the European Organization for Research and Treatment of Cancer Core Quality of Life Questionnaire. *J Psychosom Res*. 2000;49:27-34.
  9. Greer J, Pirl W, Park E, Lynch T, Temel J. Behavioral and psychological predictors of chemotherapy adherence in patients with advanced non-small cell lung cancer. *J Psychosom Res*. 2008;65:549-552.
  10. Pirl W, Greer J, Traeger L, et al. Depression and survival in metastatic non-small-cell lung cancer: effects of early palliative care. *J Clin Oncol*. 2012;30:1310-1315.
  11. Zabora J, BrintzenhofeSzoc K, Jacobsen P, et al. A new psychosocial screening instrument for use with cancer patients. *Psychosomatics*. 2001;42:241-246.
  12. Andersen B, Thornton L, Shapiro C, et al. Biobehavioral, immune, and health benefits following recurrence for psychological intervention participants. *Clin Cancer Res*. 2010;16:3270-3278.
  13. Giese Davis J, Collie K, Rancourt KMS, Neri E, Kraemer H, Spiegel D. Decrease in depression symptoms is associated with longer survival in patients with metastatic breast cancer: a secondary analysis. *J Clin Oncol*. 2011;29:413-420.
  14. Pirl WF, Greer JA, Gallagher ER, Temel JS, Traeger L, Lennes IT. Association of screening for psychosocial distress in patients with newly diagnosed stage IV NSCLC and survival [abstract]. *J Clin Oncol*. 2012;30(15S). Abstract 9030.
  15. Carlson LE, Angen M, Cullum J, et al. High levels of untreated distress and fatigue in cancer patients. *Br J Cancer*. 2004;90:2297-2304.
  16. Passik SD, Dugan W, McDonald MV, Rosenfeld B, Theobald DE, Edgerton S. Oncologists' recognition of depression in their patients with cancer. *J Clin Oncol*. 1998;16:1594-1600.
  17. Meyer TJ, Mark MM. Effects of psychosocial interventions with adult cancer patients: a meta-analysis of randomized experiments. *Health Psychol*. 1995;14:101-108.
  18. Trijsburg RW, van Knippenberg FC, Rijpma SE. Effects of psychological treatment on cancer patients: a critical review. *Psychosom Med*. 1992;54:489-517.
  19. Cwikel JG, Behar L, Rabson-Hare J. A comparison of a vote count and a meta-analysis review of intervention research with adult cancer patients. *Res Soc Work Pract*. 2000;10:139-158.
  20. Gottlieb B, Wachala E. Cancer support groups: a critical review of empirical studies. *Psychooncology*. 2007;16:379-400.
  21. Jacobsen PB, Jim HS. Psychosocial interventions for anxiety and depression in adult cancer patients: achievements and challenges. *CA Cancer J Clin*. 2008;58:214-230.
  22. Graves K. Social cognitive theory and cancer patients' quality of life: a meta-analysis of psychosocial intervention components. *Health Psychol*. 2003;22:210-219.
  23. Adler NE, Page A, eds; Institute of Medicine Committee on Psychosocial Services to Cancer Patients/Families in a Community Setting. *Cancer Care for the Whole Patient*. Washington, DC: National Academies Press; 2008.
  24. American Society of Clinical Oncology. QOPI: The Quality Oncology Practice Initiative. Available at: <http://qopi.asco.org/>. Accessed December 17, 2013.
  25. Lazenby M, Dixon J, Bai M, McCorkle R. Comparing the distress thermometer (DT) with the patient health questionnaire (PHQ)-2 for screening for possible cases of depression among patients newly diagnosed with advanced cancer. *Palliat Support Care*. 2014;12:63-68.
  26. Hollingworth W, Metcalfe C, Mancero S, et al. Are needs assessments cost effective in reducing distress among patients with cancer? A randomized controlled trial using the Distress Thermometer and Problem List. *J Clin Oncol*. 2013;31:3631-3638.
  27. Marcus A, Garrett K, Cella D, et al. Can telephone counseling post-treatment improve psychosocial outcomes among early stage breast cancer survivors? *Psychooncology*. 2010;19:923-932.
  28. DuHamel K, Mosher C, Winkel G, et al. Randomized clinical trial of telephone-administered cognitive-behavioral therapy to reduce post-traumatic stress disorder and distress symptoms after hematopoietic stem-cell transplantation. *J Clin Oncol*. 2010;28:3754-3761.
  29. Kroenke K, Theobald D, Wu J, et al. Effect of telecare management on pain and depression in patients with cancer: a randomized trial. *JAMA*. 2010;304:163-171.
  30. Thomas B, Nandamohan V, Nair M, Robinson J, Pandey M. Screening for distress (the sixth vital sign) in a global recession: sustainable approach to maintain patient-centered care. *Future Oncol*. 2009;5:727-738.
  31. Shimizu K, Ishibashi Y, Umezawa S, et al. Feasibility and usefulness of the "Distress Screening Program in Ambulatory Care" in clinical oncology practice. *Psychooncology*. 2010;19:718-725.
  32. Vitek L, Rosenzweig M, Stollings S. Distress in patients with cancer: definition, assessment, and suggested interventions. *Clin J Oncol Nurs*. 2007;11:413-418.
  33. Kendall J, Glaze K, Oakland S, Hansen J, Parry C. What do 1281 distress screeners tell us about cancer patients in a community cancer center? *Psychooncology*. 2011;20:594-600.
  34. Carlson L, Waller A, Mitchell A. Screening for distress and unmet needs in patients with cancer: review and recommendations. *J Clin Oncol*. 2012;30:1160-1177.
  35. Carlson L, Bultz B. Cancer distress screening. Needs, models, and methods. *J Psychosom Res*. 2003;55:403-409.
  36. Dupont A, Wheeler J, Herndon J, et al. Use of tablet personal computers for sensitive patient-reported information. *J Support Oncol*. 2009;7:91-97.
  37. Abernethy A, Ahmad A, Zafar SY, Wheeler J, Reese J, Lyerly HK. Electronic patient-reported data capture as a foundation of rapid learning cancer care. *Med Care*. 2010;48(6 suppl):S32-S38.
  38. Clark K, Bardwell WA, Arsenault T, DeTeresa R, Loscalzo M. Implementing touch-screen technology to enhance recognition of distress. *Psychooncology*. 2009;18:822-830.
  39. Miller M, Buzaglo J, Clark K, et al. Demonstrating the psychometric properties of a problem-related distress screener in a community sample of 319 cancer survivors. *Psychooncology*. 2013;22:1249-1257.
  40. Werner A, Stenner C, Schuz J. Patient versus clinician symptom reporting: how accurate is the detection of distress in the oncologic after-care? *Psychooncology*. 2012;21:818-826.
  41. Kayser K, Acquati C, Tran T. No patients left behind: a systematic review of the cultural equivalence of distress screening instruments. *J Psychosoc Oncol*. 2012;30:679-693.
  42. Vodermaier A, Linden W, Siu C. Screening for emotional distress in cancer patients: a systematic review of assessment instruments. *J Natl Cancer Inst*. 2009;101:1464-1488.
  43. Luckett T, Butow P, King M, et al. A review and recommendations for optimal outcome measures of anxiety, depression and general distress in studies evaluating psychosocial interventions for English-speaking adults with heterogeneous cancer diagnoses. *Support Care Cancer*. 2010;18:1241-1262.
  44. Mitchell A. Pooled results from 38 analyses of the accuracy of distress thermometer and other ultra-short methods of detecting cancer-related mood disorders. *J Clin Oncol*. 2007;25:4670-4681.



45. Thekkumpurath P, Walker J, Butcher I, et al. Screening for major depression in cancer outpatients: the diagnostic accuracy of the 9-item patient health questionnaire. *Cancer*. 2011;117:218-227.
46. Ryan D, Gallagher P, Wright S, Cassidy E. Sensitivity and specificity of the Distress Thermometer and a 2-item depression screen (Patient Health Questionnaire-2) with a “help” question for psychological distress and psychiatric morbidity in patients with advanced cancer. *Psychooncology*. 2012;21:1275-1284.
47. Fann J, Berry D, Wolpin S, et al. Depression screening using the Patient Health Questionnaire-9 administered on a touch screen computer. *Psychooncology*. 2009;18:14-22.
48. Reuter K, Harter M. Screening for mental disorders in cancer patients—discriminant validity of HADS and GHQ-12 assessed by standardized clinical interview. *Int J Methods Psychiatr Res*. 2001;10:86-96.
49. Goldberg DWilliams P. A User’s Guide to the General Health Questionnaire (GHQ). Windsor, United Kingdom: NFER-Nelson; 1988.
50. Morasso G, Costantini M, Viterbori P, et al. Predicting mood disorders in breast cancer patients. *Eur J Cancer*. 2001;37:216-223.
51. Morasso G, Costantini M, Baracco G, Borreani C, Capelli M. Assessing psychological distress in cancer patients: validation of a self-administered questionnaire. *Oncology*. 1996;53:295-302.
52. Mitchell A, Meader N, Symonds P. Diagnostic validity of the Hospital Anxiety and Depression Scale (HADS) in cancer and palliative settings: a meta-analysis. *J Affect Disord*. 2010;126:335-348.
53. Zigmond AS, Snaith RP. The Hospital Anxiety and Depression Scale. *Acta Psychiatr Scand*. 1983;67:361-370.
54. Thekkumpurath P, Venkateswaran C, Kumar M, Newsham A, Bennett M. Screening for psychological distress in palliative care: performance of touch screen questionnaires compared with semi-structured psychiatric interview. *J Pain Symp Manage*. 2009;38:597-605.
55. Recklitis C, Rodriguez P. Screening childhood cancer survivors with the Brief Symptom Inventory-18: classification agreement with the symptom checklist-90-revised. *Psychooncology*. 2007;16:429-436.
56. Carlson L, Groff S, Maciejewski O, Bultz B. Screening for distress in lung and breast cancer outpatients: a randomized controlled trial. *J Clin Oncol*. 2010;28:4884-4891.
57. Gilbody S, Bower P, Fletcher J, Richards D, Sutton A. Collaborative care for depression: a cumulative meta-analysis and review of longer-term outcomes. *Arch Intern Med*. 2006;166:2314-2321.
58. Misono S, Weiss N, Fann J, Redman M, Yueh B. Incidence of suicide in persons with cancer. *J Clin Oncol*. 2008;26:4731-4738.
59. Fann J, Ell K, Sharpe M. Integrating psychosocial care into cancer services. *J Clin Oncol*. 2012;30:1178-1186.
60. Jacobs D. A Resource Guide for Implementing the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) 2007 Patient Safety Goals on Suicide. Wellesley Hills, MA: American Hospital Association; 2007. Available at: <http://www.aha.org/content/00-10/JCAHOSafetyGoals2007.pdf>. Accessed December 17, 2013.